the least servicing and replacement of parts."

The University of Minnesota range opened June 18 last year—shortly before the "pest season" reached its height in Minneapolis. It was found that insects and bugs were definitely a deterrent to potential customers, particularly in the evenings. Measures for combatting this nuisance are being considered at the moment.

**Regulate Traffic to Tees**

To insure an orderly and business-like operation, Ryman suggests setting up the physical plant so that traffic to and away from the tees can be closely regulated. Careful planning is necessary to insure this. The control building is an integral part in this layout.

When the Minnesota driving range was first opened, participants were required to park across the road from the tees. This was soon discovered to be a mistake. The large majority of people using the range had someone with them—wife, sweetheart, friend, son, daughter, etc. Many brought their entire family. Ryman found that these spectators came along with the idea of sitting in their cars and watching the individual with whom they came hit out his or her pall of balls. In the absence of parking space adjacent to the range and affording good visibility of it, many did not come back. This has been already remedied.

---

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April, 1950
The lights installed by the University have been a matter of slight controversy. Some interested parties opined that they were higher, more powerful, and more costly than necessary. Ryman is firm in his conviction that they must be bright enough so that anyone using the range can follow the full flight of each ball he hits. This much was learned through bitter experience—sealed lights are the ONLY kind. On several occasions the exposed bulbs used on the Minnesota range exploded like popcorn when hit by cold rain.

Personnel has provided no problem for Ryman. There are usually two student employees on hand to assist Dave MacMillan from opening time until an hour or so after closing at 10 p.m. No two students put in this much time, but several do-tail their work schedules. There is a long and select list of students waiting for employment at the range.

The range, its buildings, and equipment represent an investment of nearly $50,000, but Ryman points out that this sum is considerably in excess of the required minimum. "You know," he explains, "a large state university such as this is expected to do everything on a very high, if not elaborate scale. Then, too, land evaluations are high in this area. I suppose that a fairly satisfactory range could be started for half this amount, if necessary."

**Personalize Golf Balls**

- and sell them by the dozens!

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A simple, easily operated machine that enables pros to give their players quick, personalized ball marking service. Factory marking results right in the pro shop. Christmas sales proved the power of personalized marking in selling golf balls in quantities. Use the same service for boosting ball sales throughout the season.

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**NATIONAL GOLF FOUNDATION**

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Chicago 5, Ill.
In spite of the late start (June 18) in opening the Minnesota range, income averaged about $32 to $33 per day. Roughly 135 people per day hitting one small pail of balls (27 to 30 balls) at 25 cents per pail return this much revenue. The larger pails of 55 to 62 balls were 50 cents. Ryman figured that it required from 6 to 9 minutes to hit out the smaller number, and an average of 15 minutes for the larger pail. The above daily income made it possible to close the range the day after Labor Day with the books in black ink. Average daily costs of operation (personnel, lights, balls, tee rental, etc.) was about $30. This does not include interest or a return on the investment.

An important source of income was the concession which handled pop, popcorn, and ice cream. Because sandwiches were available at the lunch counter in the golf course clubhouse nearby they were not on sale at the range.

The bookkeeping should not be a matter of concern to anyone, advises Ryman. He found it a very simple operation.

"We've made a few mistakes along the way and have encountered some rough spots," concludes the Minnesota athletic business manager, "and we know darned well that we still have a lot to learn, but it's an interesting undertaking and certainly a highly worth-while one in terms of the recreational opportunities it affords."

**MAINTENANCE THAT MAKES**

(Continued from page 71)

ways with clean cut edges, free from wash-outs. If a path becomes damaged after a heavy rain and is a constant maintenance problem, why not top with cold

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An 11 year record of carefree service proves the popularity of its practical design and the lasting qualities of its sturdy construction.

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**April, 1950**

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103
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Turf Special 12-8-4  Regular 6-9-7
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Its use on 700 golf courses (as long as 5 years on some) has proved its value as a greens fertilizer. Greenkeepers are enthusiastic over results. It doesn't burn — cuts labor costs — is easy to apply.
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mix asphalt. This material is easily obtainable and the work can be done with your own labor. Cold mix is more porous and does not hold too much moisture. It will not get too hard and yet in the hot weather does not become sticky.

Tile outlets in creeks should be kept open, and broken tile replaced. Creek beds should be kept free of rubbish, broken tile, etc. Keep water flowing freely to prevent it from becoming stagnant.

The entrance and driveways to the club should be neat and clean, a few flowers or shrubs in the right place makes it colorful and pleasant, good turfed areas stand out here. A member or guest will get his first impression of your club as he is driving in. This also holds true around the starting tees on the course. A little extra fertilizer around the lawns, maybe a flower bed, here and there, shade trees, bulletin board, bag racks, etc., all make the area seem more pleasant and inviting to the players.

Shelter houses should be kept repaired and painted. See that they are kept clean at all times.

I would like to mention again that we must realize the demands for specialized turf by the golfer. If we do not have this type of turf on our courses, we should present the club officials with a well-thought out plan to make these changes. If we can’t live with it, we should get rid of it. The sooner we do this, the sooner we will be recognized as experts in the field of turf.

U. of MASS. TURF MEET
(Continued from page 80)
reseeding. Final shots indicated a good catch of grass.

Retaining Labor
Greenkeeping superintendents from different types of golf courses presented ideas as to how labor could be retained by a club in competition with industry. Professor Cornish introduced the subject by stating that the need for skilled greensmen was becoming progressively larger with the introduction of new equipment and chemicals. Much of the burden of retaining labor fell on the superintendent who first has to convince his committee that the expense of training replacements is great.

Anthony Longo of Yale GC, New Haven, Conn., emphasized security. He brought up the question of insurance policies and year-round work. He discussed the skill required by a greensman in contrast to other trades. As an example, he explained the skill required in watering a green, a

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The task which laymen believe is simple.

Alvin Porter of the Northfield Inn GC, Northfield, Mass., stated that small clubs had problems in this regard not experienced by larger clubs. The small course must rely largely on seasonal labor. Mr. Porter used university students as seasonal labor, and generally managed to get the same ones to work for him each summer during the students' four college years, thus requiring minimum training of replacements.

Mac MacLeod of Mt. Holyoke College GC, South Hadley, Mass., described how he could arrange his program of work between the course and college grounds so that he could retain his skilled men year around. All his men receive sick leave benefits and annual holidays. The latter usually fail, Mr. MacLeod stated, when he needs his men most, but once the holiday program of his crew is arranged, he tries never to change the dates set for each man.

Arthur Anderson of Brae Burn CC, Newton, Mass., told of his winter work and how it fitted into his labor program. He mentioned that one greensman had been working for Brae Burn for 60 years. For seasonal labor, Mr. Anderson used university students and last summer, four universities were represented in his labor crew.

Carl Tread of Montclair (N.J.) GC, summed up the discussion by outlining methods whereby small and large clubs could retain skilled men. He spoke of security and ideal working conditions. He emphasized fairness to the men.

Soil Sampling and Soil Testing

Dr. Dale Sieling, Head of the Department of Agronomy, Univ. of Mass., contrasted chemical and physical analysis of soils. He discussed limitations of chemical analysis. Analysis of soils requires three operations, Dr. Sieling says. These are, sampling, actual analysis, and interpretation. Sampling is usually completed by the man in the field and requires care and thought. Randomized sampling is necessary with the sample taken from over the whole area for which recommendations are required. Labeling and packaging for shipment require attention and the sample should be accompanied by complete information. The analysis itself is a simple operation but should be carried out under direction of an agronomist. Interpretation is the work of an expert. Faulty conclusions are made frequently from these results and sometimes there is the tendency to rely on these results when the cause of

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trouble is elsewhere. Dr. Siebing noted that chemical analysis of soils is useful and has its place, but the results only tell part of the story.

Demonstration in Diagnosing

Professor Dickinson described an area of poor turf. Eight winter school greenkeepers questioned Professor Dickinson and diagnosed the cause of the trouble by assembling all the facts. Troubles on other turf areas were diagnosed in this manner with the audience participating. The purpose of this exercise was to demonstrate a simple and logical method of diagnosing turf troubles that could be used by all turf growers.

Annual meeting of the Mass. Section, New England Turf Association, concluded the two-day conference.

Homer C. Darling, pres. of the Section, presided. He outlined the accomplishments of the Section since its inception two years ago and its plans for 1950. He stressed the absolute necessity for turf research in this state. Officers elected for 1950 are as follows:

President, Homer C. Darling, Junior Hill GC; 1st vp, William Mitchell, contractor for turf construction; 2nd vp, Elliot Rogers, cemetery superintendent; Exec. Sec.-Treas., Prof. Lawrence S. Dickinson; Rec. Sec., Geoffrey Cornish.

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Completely automatic; just plug in to socket, no extras. Your patrons love it, frankfurter sales will zoom. Write for details today!
NEWS from the MANUFACTURERS

"BUDD" STEELE APPOINTED SALES MANAGER, BURKE GOLF, INC.

Appointment of Burton (Budd) Steele as sales manager of Burke Golf, Inc., Newark, Ohio, has been announced by Pres. John T. Gillilan. “Budd” Steele is well known in the golf field, having been identified with the industry for more than twenty years. Prior to joining Burke, he was associated with the Hillerich & Bradsby Co., Inc., Louisville, Ky., helping introduce the H & B Professional line of golf clubs up to the time of the war. “Budd” has built up an extensive acquaintance among golf professionals in his travels over most of the country as a manufacturer's representative, and as an avid follower of the sport, he attends most of the national events in golf each year. He has helped organize and sponsor a great many golf tournaments of national importance and is particularly well-known on the Florida circuit, where he has spent each off-season since 1930 in the interest of stimulating winter popularity of the game. In his new capacity as sales manager of Burke Golf, Inc., Mr. Steele will be responsible for promotion of Burke's complete line of clubs, balls and accessories.

FREEBURG, GREER, UPPED IN WILSON COMPANY

Les R. Freeburg, Kansas City mgr. of Wilson Sporting Goods Co. and gen. mgr., Lowe & Campbell, has been promoted by Wilson's board of directors to vice presidency of the Wilson organization. Herb Greear, Wilson's merchandise mgr., has been named sec. of the company, succeeding Freeburg in that capacity. L. V. (Red) Brown succeeds Freeburg as mgr. of the K. C. Lowe & Campbell store.

BALANCED BAG SALES REACH ONE-HALF MILLION

Balanced golf bag sales this year will pass the half-million mark since the lightweight bag that doesn’t sag or spill clubs was introduced during the war-time caddy shortage. Pro orders for spring delivery assure that record sales volume for one
New & Reprocessed GOLF BALLS
(Available Under Private Brand)
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Golf bag design. The bag is sold through pro shops at more than 3000 golf clubs.

GOLFCRAFT HAS PENFOLD BALL
E. R. Woolley, Pres., GOLFCRAFT, Inc.,
1700 W. Hubbard, Chicago, announces his firm's appointment as exclusive U. S. distributors for Penfold golf balls. These balls will be sold through golf professionals only. Woolley describes the Penfold as a lively ball with a thin cover and a large, fully liquid, fine latex sac core. The addition of Penfold golf balls rounds out GOLFCRAFT's 1950 line. Accessories, including gloves and head covers, are also shown. Copies will be sent upon request.

GOLFCRAFT HAS PENFOLD BALL
GOLFCRAFT HAS PENFOLD BALL

GOLFERS’ RAIN-JAC, A NEW ITEM
FOR PRO SHOP MERCHANDISING
Golfers’ Rain-Jac is a new product designed for all outdoor sportsmen made by Double-Jay Rainwear Co., Kansas City, Mo., from genuine Firestone Velon. It comes in smoketone, sizes S-M-L, in self-case that fits in your pocket, weighs only 12 ounces. Has attached hood which turns with one’s head making it easy to follow flight of golf ball, has large utility pocket for tees and other accessories. Rain-Jac designed to add extra hours of pleasure on those threatening days. New product is being launched through pro shops. Pros should find ready acceptance of this handy item which retails at an economical figure.

SPALDING AD TIE-UPS
A. G. Spalding & Bros., Inc. consumer advertising in Life, Golfing, Saturday Evening Post, Time and newspapers will be tied up to pro shop displays with counter and wall cards. The new Dot with Tru-Tension winding and Spalding “Custom-fit” clubs with “greatest combination of weights, lengths and shaft flexibility” are being featured in an extensive advertising campaign.

DARLEY HANDY PUMP
W. S. DARLEY & CO., Chicago 12, Ill. making a convenient and sturdy small pump for golf course use. Supts. have found it valuable for emergency use in water supplying, spraying and for pumping out flooded traps, other course areas and basements. Pump is described in Darley Bulletin GP101 which will be sent on request.

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**SCOGGINS' NEW CATALOG**

Howard Scoggins Golf Co., Dunedin, Fla., has issued its 1960 pro-only catalog on apparel, shoes, head covers, spikes, grips, luggage, pro shop specialties and club outdoor furniture. Copy of this catalog will be sent pros on request.

---

**WALLIE ROBB OF WILSON'S DIES AT CHICAGO**

Wallace L. (Wallie) Robb, 69, for 32 years asst. to Pres. L. B. Icely of Wilson Sporting Goods Co., died March 27 in St. Joseph's hospital, Chicago, following five days' illness with a heart attack.

Robb was widely known in the field of sports and particularly in golf where he was assigned by Icely to the development of Wilson's advisory staff of men and women professionals.

He was born near Monmouth, Ill., Feb. 18, 1881, was active in Pomona (Calif.) Jr. College athletics before joining the staff of the B. H. Dyas Co., Los Angeles, with which he was associated for 12 years prior to going with Wilson's. He is survived by his widow, Elia.

Wallie, in looks and mental and physical activity was so much younger than his years that his death came as a great shock to the many hundreds who knew him well. He was stricken by a heart attack Wednesday evening, March 22 and hospitalized the next morning. He regarded the attack as mild and until doctors prohibited telephone calls and visits Wallie cheerfully reported he'd be back on the job soon.

Icely voiced the sentiments of all who knew Wallie Robb, in saying, "He served the company and the industry well in his many years with Wilson, but even more valuable was his warm and deep friendship. His passing is a poignant personal loss."

---

**BAG BOY PRODUCED IN ENGLAND**

Bag Boy golf cart produced by Jarman-Williamson Corp., Portland, Ore., is being produced in quantity in England by the A. C. Car Company, it has been announced by Pres. Bruce Williamson. The English firm, manufacturers of light cars, diesel engines and diesel trains, are said to be making 5000 Bag Boys in their first order.

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McClain Spikers now available in both Hand and
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