

how to choose your turf fungicides:

**effectiveness**—Select those whose performance has been proved—those that have consistently earned superior ratings in the National Turf Fungicide Trials... for positive prevention, quick cure.

**economy**—Find out which fungicides require the smallest dosage per 1,000 sq. ft. of turf... and the fewest number of applications per month. This is the real measure of economy.

**safety**—They should not discolor or injure your turf when correctly applied.

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is less than 5.5 feet, there should be no sudden changes of slope. Any flat area on the pool bottom offers excellent lodging places for sediment and should be avoided.

Some authorities claim that the shallow water area, five feet or less in depth, should be 80 percent or more of the total area of large outdoor pools. However, this must be considered in relation to pool volume, bathing load, type of activity, recirculation or flowing through purification system, and so on.

### Permanent Interior Finish

One or two further points on construction: the interior finish of the pool should be a permanent material — not paint. Tile is best. Of course it is expensive. Where the expense would be too great to justify complete coverage, a tile band about a foot high at water level is strongly recommended. The band permits easy cleaning of the pool wall at water level, where scum accumulation is greatest. A specially developed silicon and white coating troweled on like plaster is a long-lasting, economical pool finish. A brilliant white when applied, it appears a deep, turquoise blue under water.

Most public pools are equipped with continuous "scum gutter" overflow troughs. Besides providing a convenient hand-hold for short-winded bathers, the scum trough regulates the water level and helps prevent the build-up of waves on the surface. Mechanical "scuppers" perform the same skimming action just as effectively and with less water wastage in smaller pools. But public health regulations usually call for the scum gutter in large public pools. Anyway, with a precast stone coping, the scum gutter, despite its repulsive name, makes a very attractive edge finish.

From the point of view of safety (obviously a most important viewpoint), public pools should be fenced in, especially at a country club where small children like to play explorer and follow-the-leader, while their parents are burning up the fairways. Besides a fence, there should be a good windbreak — tall, thick hedges and evergreens are excellent — so the swimming day and season can be lengthened.

As for mechanical equipment, the filtration system is most vital. A rapid sand pressure type filter system will mean clear, clean water all the time. While many "package" filter units are on the market, it is very risky to install one without the advice of a skilled engineer. The filter is a mechanism that must be geared to the particular pool. Filtration equipment

should be located where there will be no damage from freezing and, in frigid climates, where it can be removed during coldest winter months. Under normal usage, the total volume of water should be filtered about once every six hours.

Heavy particles which settle to the bottom and are not easily picked up in the recirculating system and drawn across the filters for removal may be removed by a vacuum cleaning system. A vacuum head, much like the domestic tank-type cleaner, is connected by a long hose to the suction return on the filter system. This head is pushed back and forth across the pool and the heavy dirt particles are quickly and completely removed. A couple of hours a week of this usually will keep even the largest club pool in perfect condition.

Besides this pool cleaning equipment, there must be water for washing the deck area, with hose and brush or other equipment. The deck should be slightly sloped away from the pool so the run-off from this cleaning will not contaminate the pool water. Provision must, of course, be made for waste water disposal, both for cleaning and for filtration plant backwashing.

It takes little fuel (about as much as needed to heat a moderate size home) to extend the swimming season two or three months in the spring and fall. If heating equipment is to be installed, it should generally be done in conjunction with the filter plant. Most heating systems are thermostatically controlled and can be set to keep the water at desired temperature.

Chlorinization is the surest way of keeping a pool bacteria-free. Again, this is installed in conjunction with the filtration and recirculation system.

Maintaining and operating the pool will depend on location and swimming load as well as size. The cost is moderate even for large pools, and many clubs have found their pools far more than paid for themselves.

With all these pointers, the best advice still is: consult an expert. No pool project should be undertaken without skilled planning from inception through completion. Just as you would consult an architect from the earliest stages of laying out your club's course, so you should call in a swimming pool specialist for consultation and guidance. In the final analysis, it pays — and you save — when you hire a professional pool building firm to handle all architectural and engineering details. The 5% assessment insures a lifetime investment. It is better to look before you leap.

Here is the  
Shower Head that's

**AUTOMATICALLY  
SELF-CLEANING**

each time it's used

**NO CLOGGING • NO DRIPPING**

There is no shower head like the new SLOAN Act-O-Matic. The exclusive feature which sets it apart from all others is its *automatic self-cleaning action*. The unique spray disc moves downward into shower position when the water is turned ON. A cone-within-a-cone spray of maximum efficiency is delivered. When the water is turned OFF the disc is moved upward, draining the head instantly.

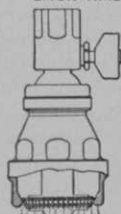
Because the water is completely removed, the Act-O-Matic SHOWER HEAD does not clog or lime up, and therefore it will not deliver irregular or distorted spray patterns. The Act-O-Matic is also economical in use. It saves water, fuel and maintenance service. (Institutional models available.)

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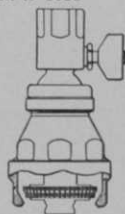
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THE Act-O-Matic Disc MOVES  
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DISC DOWN  
SHOWER ON



DISC UP  
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OFF position opens large, free waterway  
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# Worthington Ball Co. 50th Year Is Celebrated

**F**FIFTY YEARS AGO this month, an inventor and industrialist named George Cushing Worthington, working in a small shop in Elyria, O., founded the Worthington Ball Co. With permission from his friend and fellow golfer, Dr. Coburn Haskell, Mr. Worthington began manufacturing the first rubber wound core golf balls, which Dr. Haskell had invented and patented previously.

Now, 50 years and several billion golf balls later, Worthington's company at Elyria, still manufactures golf balls exclusively. Last year alone, Worthington sold over 6,000,000 golf balls to the ever growing golfing public.

The company which Mr. Worthington started in April, 1904 has made many outstanding contributions to golf as a sport and to the manufacture of golf balls.

Worthington was first to produce a white covered ball, first with the diamond stud

cense from Haskell, began mass producing wound core golf balls.

Around 1910, Worthington developed what was known as the "Radio" golf ball. The center of this ball was composed of raw rubber compounded with radium particles. It did much to establish Worthington as one of the leading manufacturers of golf balls.

After World War I Worthington announced the vulcanized cured cover, that made a golf ball exceptionally tough. Balata, a product of a rubber tree, was used as cover stock for the first time.

Previous to World War II, the centers and threads were made from pure crude rubber and the cover stock was made from Tjipetir — the trade name for gutta-percha. Tjipetir is made from the juice of the leaves of a tree which grows in Java in the Dutch East Indies.

Worthington froze the centers for contraction, treated the thread for extra stretch, X-rayed the balls for trueness, compression-tested them for hardness, gave the balls the cutting test, vulcanized and cured the covers for toughness, chlorinated them previous to painting, gave the balls the adhesion test for paint, and then packed them with meticulous care. In all, 49 operations were required to produce the pre-World War II golf balls. Worthington still manufactured golf balls exclusively.

The golf ball business was really booming in 1941. However, it didn't last long. On December 18, 1941 Worthington received word that no more golf balls were to be manufactured for the duration of the War. To keep the game alive, Worthington undertook the reprocessing of old golf balls. They did this for other manufacturers who were tied up on war work. Had it not been for their effort of reprocessing golf balls for most of the industry during 1942 and 1943, golf might have been a war casualty.

Then the government, through the Surgeon General's Office, offered golf ball manufacturers synthetic materials. They wanted golf balls for the servicemen in hospitals and rehabilitation centers. In 1944, Worthington developed a synthetic golf ball for the Armed Forces. Many thousands of these balls were shipped all over the

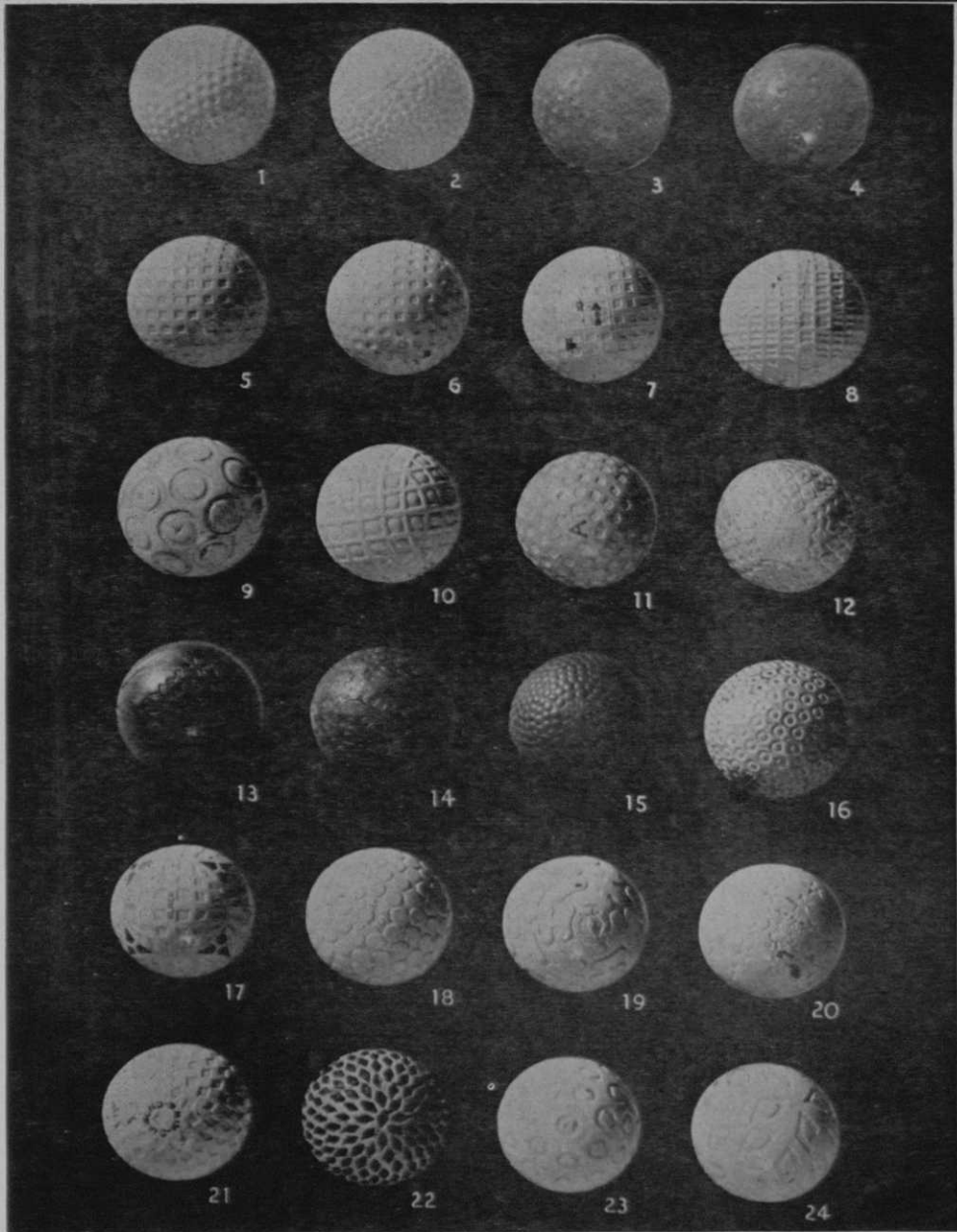


Harry M. Naugle, Worthington Ball executive since 1927 and its president since 1934, points to one of the first golf balls the company made.

mesh, first with the large thin walled liquid center, first to develop hardness and ball compression tests, first with the dip process one piece cover, first to design and develop the winding machine and first to use tape winding.

In 1898, the Haskell golf ball was developed. It contained a wound core of rubber strands, but a cover of gutta-percha was still used. In 1904, Worthington, under li-





### BALL MARKING MUSEUM

Worthington Ball Co. has an interesting collection of ball markings, all of which have been made by the company during its 50 years, including a few markings introduced before the company made its first ball. The exhibits include: 1. One of the first recess or dimple marking. Used about 1914. 2. Bramble marking—the reverse of a dimple used on Haskill balls about 1900. 3. Solid Gutta Percha ball—hand marked dimple marking. 4. Dog Tooth marking on a solid Gutta Percha ball. Used before 1900. 5. Original present day mesh marking. Used in 1918. 6. Mesh marking used in 1914. 7. Mesh marking used in 1912. 8. First mesh marking used about 1910. 9. Exaggerated stud marking—1912. 10. Experimental ball—combination mesh and dimple. 11. Hand punched marking—used before mesh marking. 12. Worthington Sterling Special—Fancy marked cover—1909. 13. Solid Gutta Percha ball—Hand punched experimental marking. 14. Worthington Diamond Crown—Maltese Cross marking, 1912. 15. Bramble marking—On a solid Gutta Percha ball—used before 1900. 16. Bramble and dimple marking. 17. Worthington Black Diamond—First ball colored marked for foursome identification. 18. Stud marking—popular in 1910. 19. Worthington White Diamond—1908. 20. Fancy marked cover. 21. Worthington Diamond King—Diamond marking—Popular in 1910. 22. Worthington original Black Diamond—Diamond marking hand punched—1905. 23. Worthington Diamond Ring—Diamond markings in circles—1918. 24. Diamond within a Diamond marking.

**Can you put the pressure**

**when you play him next**



# on Ben Hogan...

## June 5th, on NATIONAL GOLF DAY?

Come on out on National Golf Day and beat Ben Hogan!

Again this year, LIFE Magazine and the PGA are setting up the U.S. Open Champion, and giving every golfer who can swing a club the chance to go out and take a crack at him—and win a specially-designed bronze medal if they beat his score.

This year, Ben Hogan is your target, in the third annual National Golf Day, all over the U.S., Canada, and wherever in the world people play golf. Ben plays 18 holes at scratch, on the tough Baltusrol course in Springfield, N. J.—you play with your club handicap, on your own home course. (Women get 7 strokes extra.)

Cool-as-a-cucumber Ben won a triple crown in 1953—the Masters, the U.S. Open, and the British Open. He's battled the world's best golfers and beaten them. He faced 80,000 golfers on National Golf Day in 1952 and beat all but 15,000 of them. Would you feel the pressure if every shot you made was going to help you win or lose against thousands of competitors? Ben had a 71 against the field in 1952—but suppose he has just one unlucky hole this year?

All it costs you to find out is \$1 entry fee (caddies, 25¢)—which goes half to the USO and half to the National Golf Fund, Inc., for worthy causes connected with golf. All tournament expenses are borne by LIFE. In two years, nearly 200,000 golfers have contributed that number of dollars to caddy scholarships, turf research, the PGA's benevolent and relief funds, the USO new recreation center in Tokyo, and many more such worthwhile activities.

So come along on Saturday, June 5th. You're going to be playing golf anyway. Why not sign up for National Golf Day—match your 18 holes against Ben Hogan's. This may be *your* year to sport an "I Beat Ben Hogan" medal!



NATIONAL GOLF DAY—JUNE 5th, 1954 **LIFE**

NATIONAL GOLF DAY IS CO-SPONSORED BY LIFE AND  
THE PGA. IT HAS THE COOPERATION OF THE U.S.G.A.

world to wherever the Armed Services were and to wherever servicemen could benefit by playing golf.

#### Facilities For Research

After World War II, with restrictions lifted, Worthington again launched a program of expansion and research. Complete new facilities were installed in their Elyria plant for manufacturing high quality golf balls. New processes and materials are constantly tried and tested. Worthington has considerable facilities devoted to research. Worthington has developed many machines and processes which are used exclusively in the manufacture of Worthington balls. Skilled specialists with years of experience add the final touch of craftsmanship.

Worthington today employs over 150 employees, many of whom have been with the company for 25 years or more.

Harry M. Naugle, Worthington's president, became associated with the company in 1927 as a director. Mr. Naugle was elected President in 1934. Prior to joining Worthington, Mr. Naugle attained national recognition for his work as a designer and engineer in steel mills. He is credited with having developed the continuous rolling mill still in use today.

Mr. Naugle brought his vast experience in automatic production methods and research to Worthington. Under his leadership, the company pioneered many new machines for the mass production of golf balls.

J. C. Brydon, vp, Sales, joined Worthington in 1927; R. F. Smith, vp, Production, came to Worthington in 1945, after many years experience in the business. C. R. Hallock, Sec., has 26 years with Worthington,

having started in 1927; while M. E. Foote, Treas., is a 7 year man, starting in 1947.

To celebrate their fiftieth anniversary, Worthington has launched an extensive national advertising and promotion campaign with the theme "Famous on the Fairways of America for Fifty Years." Sales-proven national and local advertising will again tell millions of golfers about Worthington products.

Jim Brydon, Worthington's vp who has devoted his entire career to the sporting goods business, sums up Worthington's business philosophy this way; "Throughout the years, Worthington has done whatever possible to foster golf as a sport and business. As golfers, as well as businessmen, we plan to keep on swinging until one of these days we come up with a golf ball that doesn't hook or slice."



#### WANNA BEAT BEN?

The Great Hogan and Genial James Demaret carry the refined sandwich proclaiming National Golf Day, June 5, when Ben will wipe away sweet smile shown above and give Baltusrol a going over that he hopes will trim every one of the many thousands of golfers who'll stack their handicaps against his scratch figures. The USO and the National Golf Fund, Inc., will be co-beneficiaries of the nation-wide event co-sponsored by Life magazine and the PGA.



In this building, factory of the only maker of golf balls exclusively, Worthington Ball Co. has installed a heavy investment in machines, processes and testing devices since World War II.



# Koppers Pre-Cut Shelter Houses



A Koppers Shelter House recently installed at the Oakmont Country Club, Oakmont, Pa.

## Combine Beauty • Utility • Long Life

**K**oppers Shelter Houses blend beautifully with the landscape of any golf course. They are rustic in appearance, and do not need painting. These shelters comfortably seat as many as seventeen people, providing them with good protection against sudden showers.

Because the lumber is thoroughly pressure-treated against decay and termite attack, Koppers Shelter Houses last three to four times as long as ones

made of untreated wood. And your yearly maintenance and replacement costs are practically eliminated.

Koppers Shelter Houses are pre-cut for quick assembly. They are shipped as a complete unit (all lumber and hardware included) and can be erected by two men in three or four days.

To find out more about Koppers Shelter Houses, write us today for prices and descriptive literature.

**KOPPERS COMPANY, INC.**



**PRESSURE-TREATED SHELTER HOUSES**

Wood Preserving Division, Pittsburgh 19, Pennsylvania



## MIDWEST TURF CONFERENCE GROWS TEN-FOLD

From 37 in 1937, the initial year of the Midwest Turf Conference at Purdue University, Lafayette, Ind., attendance has grown to a registration of 375 this year. Many of those who attended are in the group picture shown above.

### Supts. Dramatize Instruction in Labor Relations

In the opinion of many golf course superintendents the most effective presentation of mutual instruction in difficult problems was made during the Midwest Turf Conference at Purdue university. The 370 who registered at the conference agreed that the panel on golf course labor management problems staged by Purdue's Prof. P. E. Lull with the cooperation of 11 supts. dramatized and put into clear focus situations with which every golf course supt. must contend.

Supts. were assigned to acting roles in



Prof. W. H. Daniel, Purdue Univ., is showing supts. attending Midwest Turf Conference some of the turfgrass tests in a Purdue greenhouse. Among those on the Midwest program were Glenn Burton, Ralph Engel, W. F. Pickett, O. J. Noer, Fred V. Grau, Al Linkogel, Joe McDermott and W. H. Daniel. Special sessions were held for private course and for pay-play course supts., in addition to the general conference.

staging the various problems and "The Supts.' Little Theatre Group" which they were called by session chmn. Stan Graves, acted with such realism you forgot they were acting.

The first subject was handling an interview with an applicant for a job. Andy Bertoni was the supt. and Ted Woehrle was the college lad applying for golf course work for the summer.

Criticism of this and the other presentations were invited from supts. and discussion in all cases was lively. In the hiring case the principal comment was that the applicant should be encouraged to do more talking about himself and his qualifications, and that the nature of the work should be stated as specifically as possible.

In the demonstration of reprimanding a course laborer Ray Gerber was the supt. and Pete Koval was the course employee whose work had been unsatisfactory. Pete complained about being underpaid, doing harder work for less money than others on the course, being sick, and gave the rest of the usual excuses.

Comment from the floor was that an investigation of the course laborer's home conditions and even a physical examination by an MD if the fellow had seemed to be worth keeping, might be advisable.

The performance on giving day's work instructions to the crew had Stan Graves as supt. and as the crew: Roy Nelson, Carl Bretzlaff, Chet Mendenhall, Bob Williams, Norm Johnson, John McCoy and Andy Bertoni.

Although the circumstances, especially