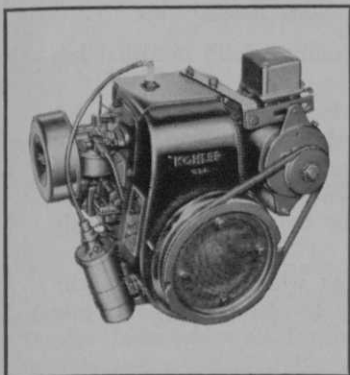


## **"Quiet" Kohler Engines** play round after round without rest—or recharge



Kohler-powered golf cars never take time out to get their "batteries charged." They keep running, two, three, four rounds a day, seven days a week, as long as there are players to use them. Maintenance is minimum, profit maximum

Kohler proves that gasoline engines need not be noisy. Quietness is built into Kohler engines with the famous cast iron block to cut vibration noise. Plasticized blower housings and non-metallic cam shaft gears, plus low idling speeds keep noise down to a polite purr. Keep your golf cars rolling and profitable with Kohler "quiet engines." For more information write Dept. E5-601, Kohler Co., Kohler, Wisconsin.

*The Cast Iron Line—sold and serviced nationwide*

## **KOHLER OF KOHLER**

Kohler Co., Established 1873, Kohler, Wisconsin

ENAMELED IRON AND VITREOUS CHINA PLUMBING FIXTURES • ALL-BRASS FITTINGS • ELECTRIC PLANTS  
AIR-COOLED ENGINES • PRECISION CONTROLS

## When Elements Unite

Nearly everyone knows that elements combine to form chemical compounds. We shall try to explain the basic structure of elements to understand HOW they unite to form new and different substances.

The atom is the building block of all chemical substances. It consists of a nucleus (very dense material) surrounded by orbiting electrons. Protons and neutrons form the nucleus and comprise most of the weight of the atom. Solid nuclear material the size of one's thumb would weigh 60 million tons.

Protons carry a positive electric charge; electrons a negative charge; neutrons, none. There is one electron for each proton. An element is made up of only one kind of atom.

All atoms have protons, neutrons and electrons (atomic particles). But the atoms of each element have a fixed number of each of the atomic particles. Sodium (Na) has 11 of each kind; chlorine has 17. When atoms from two (or more) elements combine, they form a molecule of a new chemical substance.

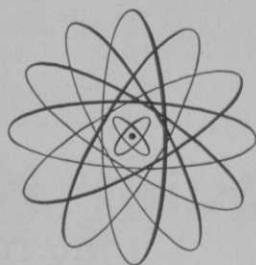
A molecule is the smallest portion of a compound that has the properties of the compound. Iron sulfide (FeS) is an example — one iron (Fe) atom interlocks with one sulfur (S) atom to form the iron sulfide (FeS) molecule.

Atoms lose, gain, or share electrons in the outer orbit (shell) to form molecules of new compounds. Iron (Fe) orbiting electrons unite with orbiting electrons of atmospheric oxygen (O) to form rust (iron oxide) that is well known to all. Atoms are classified into from one to seven groups according to the distance of their orbits (shells) from the nucleus and the number of electrons present. Only the electrons in the outermost group or shell can enter into combination. An atom with eight electrons in the outer shell (neon, for example) is inert and incapable of combination. An atom with seven outer electrons can combine with one that has one outer electron.

Chemical union does not always occur when two elements simply are brought together. An iron rod shoved into a pile of sulfur will not produce iron sulfide, nor will water start to run when the gases of hydrogen and oxygen are mixed. Energy, usually as HEAT, either must be applied to, or is produced by, the reaction. Energy can not be created or lost — only transferred

Briefly, then, elements unite by electrical means when electrons in the outer orbit of atoms share orbits or are transferred to others. Elements lose their identity when they unite to form molecules of new chemical substances. (Sodium, a violently active metal, combines with chlorine, a poisonous gas, to form salt, a seasoning for food.)

*This elementary explanation, prepared with the help of Dr. and Mrs. William G. Mentzer (son-in-law and daughter, Ellen), is a modest introduction to a great chemical complexity. Continuation of this subject will be dependent upon reader response.*



Oxygen Atom — nucleus (dot) is surrounded by two inner and six outer electron orbits.

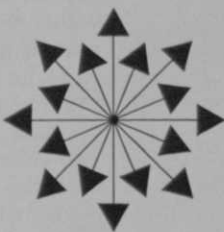


## Why the new trademark at Thompson?

Because management wants to make a point: a reliable and stable company advances with care, yet confidence. Since 1907 Thompson has earned its reputation as the quality leader in turf irrigation equipment. *That's not going to change.*

If you're a distributor, dealer or salesman, there's profit in the Thompson line. *That's not going to change.*

If you're an architect, landscape designer, sprinkler consultant, golf course designer, head gardener or parks commis-



sioner, there's precision engineering, dependability and long lasting performance in the Thompson line. *That's not going to change.*

What is going to change? In a word, *attitude.* This trademark is a symbol of management's eagerness to forward its relationships. You're going to be hearing from Thompson.

Thompson Manufacturing Company, 2251 East Seventh Street, Los Angeles 23, California, Code 213 269-8233.

# Ladies Learn About Clubs at Rainy Day Clinic

*Portsmouth (Va.) professional points out need for literature telling how golf clubs are made that can be distributed to players*

By JOE DOAN

**R**ain is fine for the golf course, but more often than not a pro is inclined to write off a rainy day as a total loss. Especially if he has a teaching clinic scheduled.

One day last spring, however, J. B. Harris, the young pro at Elizabeth Manor GC in Portsmouth, Va., turned the rain to an advantage that should go on paying him benefits for years to come. A women's clinic that he had scheduled was driven to the club dining room by a Virginia downpour. Wondering how he would keep the ladies entertained for an hour or so before lunchtime, Harris hit on the idea of describing how golf clubs are made and what is meant by such mysterious terms as "swing weight," "flex," "hosel," etc. He had some misgivings as to whether his audience would become enraptured with his lecture, but within a few minutes he sensed that the women were absorbing practically every word he uttered. His talk, followed by a lengthy question and answer period, ran to more than two and one-half hours. The ladies insisted on delaying their lunch until the subject of golf clubs was thoroughly discussed.

Harris was completely surprised by the fact that the women showed so much in-



J. B. Harris, Elizabeth Manor pro (l), and Bob Roland, whose mission in life is to find the perfect set of clubs, check face of a new driver. Floor in Portsmouth pro shop is unique; it's made of sawed-off 2 x 4 ends.



Mrs. Sue Kelly, Mrs. John Phillips and Mrs. Doris Leigh inspect a jacket that Harris holds. J. B. would rather be selling them clubs but he isn't passing up any sportswear sales.

terest in how clubs are constructed. Like most people, J.B. thought that was a subject in which only men are interested. He admits that he had to leave some answers to some of the more intricate questions thrown at him hanging in the air. At the end of the session there were numerous requests for booklets or pamphlets illustrating how clubs are manufactured. Unfortunately, Harris had none to offer.

Thinking about this later, the Portsmouth professional decided that the PGA and club manufacturers should seriously think about collaborating on a pamphlet that describes how clubs are made. It

could be distributed in pro shops as point-of-sale literature. "Something like this," says J.B., "would give us one more tool that would help sell pro-line clubs."

Following his lecture, Harris made several unsolicited, on-the-spot sales of woods, wedges and putters to the women. During the remainder of the season, his sales of clubs to women proceeded at a much brisker pace than they ever had before. He is convinced that this single, rainy day clinic made the ladies much more club conscious than they previously had been. He feels that the men, too, were indirectly influenced by it. At any rate, he is scheduled to give his talk

Having the practice putting green located directly in front of the shop front door is one of the little things in the pro picture that helps business.



on club construction to both men and women this spring.

Selling clubs to male members never really has been much of a problem for Harris. It's because Bob Roland, Elizabeth Manor's green chairman and a 200-round a year player, kind of sets a club buying tempo for many men who belong to the club, although none tries to match Roland when it comes to sheer numbers. It's little wonder since Bob, described by Harris as a "clubholic", exchanges a dozen or more sets of clubs a year. He is obsessed with the idea that someday he is going to find what for him is the perfect set. He turns clubs over so fast that the varnish on the woods is hardly dry when he trades them in.

#### Doesn't Lose Money

Many pros will contend that you can't make money on a fellow like this, the difference between new clubs and trade-ins being what it is. But Harris maintains that he has yet to lose any money through the rather involved transactions with Roland. "A fellow like Bob is reasonable enough to know that I have to make a profit on every club I sell him," says J.B. "He doesn't haggle on new club prices, nor on trade-in allowances. When I sell the clubs he returns I always get a fair price for them. Many players are anxious to buy the near-new clubs that Bob turns back."

Roland's rather furious buying of new clubs is a widely discussed topic at Portsmouth Manor. "What kind of a set did Bob buy today?" is a question that often is banteringly asked of Harris. The question may wear thin at times, but as long as it is asked, people at least are thinking about golf clubs. Harris knows of no better way to keep them in that mood.

#### Head Pro at 21

The handsome young Elizabeth Manor pro has been at the Portsmouth club for 13 years. Five of these were spent as a course laborer and assistant pro. Born in North Carolina, J.B. lived with the family of the former pro, Fred Sappenfield, the last two years he was in high school and worked as Fred's assistant. In 1956, when Sappenfield left the club, Harris was named head pro. He was only 21-years old at the time.

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## Merchandise Show to Go On; Other PGA Events Listed

The PGA's sixth annual merchandise show will be held at the PGA National GC in Palm Beach Gardens, Fla., Jan. 27-31, according to John Vasco, director. The show, as in other years, will be housed in a huge tent pitched in a paved area.

Booths for exhibiting golf products are 12 by 8 feet. No more than four booths are allotted to any exhibitor. The deadline for obtaining booth space is Jan. 11.

The PGA Match Play Championship will be staged during the week the merchandise show is held.

Other PGA activities scheduled for January and February are:

Jan. 18-22 — Business school in Clearwater, Fla.

Feb. 2-4 — PGA Senior-Junior tournament, sponsored by Golf Pride — Palm Beach Gardens

Feb. 11-14 — PGA Club Championship, Palm Beach Gardens

Feb. 16-17 — PGA Quarter Century Club Championship, Palm Beach Gardens

Feb. 25-28 — Seniors' Teacher Trophy Championship, Ft. Lauderdale (Fla.) CC

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Harris has doubled sales in the eight years he has been Elizabeth Manor's shopmaster. He carries an average inventory of around \$10,000 and estimates that it is turned over four times a year. Clubs, as you may suspect, account for a larger percentage of his sales than sportswear, something that isn't quite in keeping with the latterday trend in pro shop merchandising. Besides having Bob Roland working for him as a "behind the scenes" salesman and seizing on such innovations as a club clinic for women players, Harris uses every possible workaday opportunity to improve his club sales picture. Mainly, this means talking about them in the shop and suggesting the purchase of them on the lesson tee.

"From what I've seen and heard," says  
(Continued on page 101)

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Bernard Hunt, one of England's leading pros, tees off at Sunningdale in England as his Shell match opponent, Dave Marr (l) and Commentator Gene Sarazen (in knickers) follow flight of ball.

PLAYERS	LOCATION	BROADCAST DATE
Dave Marr Bernard Hunt	Sunningdale Golf Club, Sunningdale, England	Jan. 17
Barbara Romeck Isa Goldschmid	Monte-Carlo Golf Club, Monaco	Jan. 24
Tony Lema Cari Poulsen	Rungsted Golf Klub, Copenhagen, Denmark	Jan. 31
Jay Hebert Friedel Schmaderer	Hamburg Golf Club, Falkenstein, Germany	Feb. 7
Juan Rodriguez Tommy Jacobs	Lyford Cay Club, Nassau, Bahamas	Feb. 14
Ben Hogan Sam Snead	Houston Country Club, Houston, Texas	Feb. 21
George Knudson Al Balding	Cape Breton Highlands, Nova Scotia, Canada	Feb. 28
Joe Carr Al Geiberger	Killarney Golf Club, Killarney, Ireland	Mar. 7
Johnny Pott Roberto de Vicenzo	Maracaibo Country Club, Maracaibo, Venezuela	Mar. 14
Phil Rodgers Aifonso Angelini	Villa d'Este Golf Club, Lake Como, Italy	Mar. 21
Marley Spearman Marilynn Smith	Luxembourg Golf Club, Luxembourg	Mar. 28

In color on the ABC Network starting January 17, 1965

### Starts on January 17

## 'Wonderful World' Series Comes Back for Fourth Season

Shell's "Wonderful World of Golf," returns to the air for its fourth season Sunday, Jan. 17, on the ABC television network.

Featured will be such outstanding golfers as Tony Lema, Juan Rodriguez, Johnny Pott, and all-time greats, Ben Hogan and Sam Snead. Two of the hour-long matches will pit top American women golfers against their European counterparts.

Shell's "Wonderful World of Golf" will be televised in color on 11 successive Sundays through Mar. 28. Times will be 4 to 5 P.M., Eastern; 3 to 4 P.M., Central; 2 to 3 P.M., Mountain; and 4 to 5 P.M., Pacific.

### American vs. Foreign Golfers

In each of the 11 shows top American golfers play outstanding foreign golfers on the world's most famous and demanding courses. The opening match on Jan. 17 is between Dave Marr and England's Bernard Hunt at Sunningdale GC, England.

G. G. Biggar, vice president of pub-

lic relations for Shell Oil Co., says the company is sponsoring the show for the fourth successive year because of its great popularity as shown by audience ratings. Viewers have indicated they like the show because of its unusual approach to the game and its world-wide scope.

As each match progresses, the styles and techniques of the golfers are analyzed. The way each golfer uses different tactics according to his strengths and weaknesses is explained. Commentators again will be Gene Sarazen and George Rogers.

An added highlight is the clinic at the end of each show in which the contestants give tips on technique. These are demonstrated in slow motion.

Brief travels that introduce each match and add to the show's popularity catch the distinctive flavor of each region where the match is played, and give viewers a look at the people and the way they live. The commercials on the show are extensions of the travels.

Thirty-one golf matches shown during the first three years of the television series are now available on 16 mm sound color films. Each an hour long, these outstanding golf films are offered to the golf clubs, service clubs, sports organizations and similar groups on a free loan basis. Further information on ordering films can be had by writing to the Public Relations Dept., Shell Oil Company, 50 West 50th St., New York, N.Y. 10020.



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for Nos. 1, 2, 3, 4, 5 Woods and Putter

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STYLE 5002 Club Sox features narrow stripes to indicate club number. (Sug. Retail, \$1.75 each.) STYLE 5004 is knit-lined; has actual numerals. (Sug. Retail, \$2 each.)

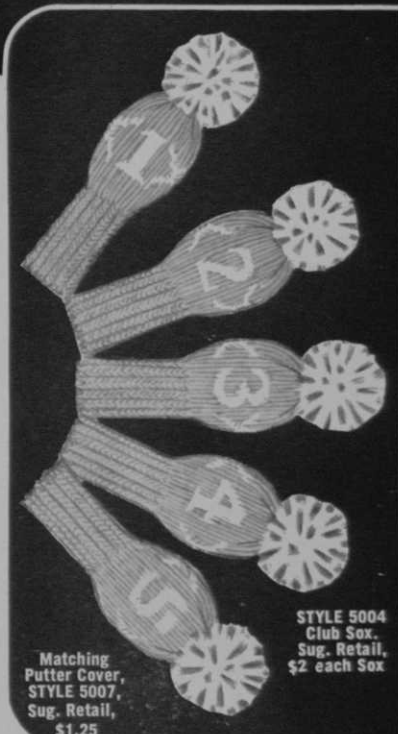


Matching Putter Cover, STYLE 5006, Sug. Retail, \$1.25

STYLE 5002 Club Sox, Sug. Retail, \$1.75 each Sox



Matching Putter Cover, STYLE 5007, Sug. Retail, \$1.25



STYLE 5004 Club Sox, Sug. Retail, \$2 each Sox

## Sports-Mate Tote Bags

Ladies love this smart, compact "hold-all" that's just 4" W. x 7½" H. Zipper closing. Leather-looking vinyl in fashion colors. About \$2.



## Pom Tam

### Knit Sports Caps

Flatter every hair-do, fit every head. Orlon acrylic or wool. Individually bagged. Bright or light colors. Sug. Ret. \$2 ea.



## Stretch Bands

Knit circlets are the fashion, and the fastest way to make a sales hit. 1 size fits all. Gay or pastel colors. Individually bagged.



## Foot-Lights

For after the game relaxing. Leather-looking vinyl, durable sueded outsoles. Ladies' sizes S., M., L. Fashion colors. Sug. Retail, \$2 pair.

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