# From hickory to matched sets

*The precision clubs of today are a far cry from the "Whistlers" of the '20s, but Wilson has seen it all—since 1914.*

By JOE DOAN

Some 40 years ago it wasn't uncommon for professionals to laboriously drill holes in the heads of their clubs and inject from ⅛ to ½ of an ounce of lead into the orifices. Their offer to do the same for some of their favored members was often rejected with a curt "No, thanks, I didn't put $65 into my clubs to have you ruin them with that crazy fad."

Leading clubs in those days were looked upon by many as a combination of superstition, tinkering and plain damn foolishness. Most pros who did it or believed in it couldn't give any rational explanation for adding more weight to the clubhead. Their only defense was that "it gives you more clubhead feel." Science was with those 1920s era pros, but they didn't know it.

Ninety per cent of the club shafts were hickory in those days. Cumbersome carbon steel shafts, which had been introduced in the early '20s, were regarded with suspicion not only because they were new but too often they bent or broke. Some companies made clubs (Whistlers) with holes in the shaft because they thought golfers would be infatuated by the sound effects. Unwittingly, the manufacturers who produced the Whistlers probably gave golfers better balanced clubs than they ever had before. The holes resulted in improved weight distribution between the shaft and clubhead, which had always been too light in relation to the overall weight of the club.

"Golfers of the '20s were playing with pretty horrible weapons," is the way Joe Wolfe, national golf director for Wilson Sporting Goods Co., looks at that comparatively primitive era. "To shoot

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*"Ogg-mented" irons, above, patented by Willie Ogg, left, in 1933, moved weight away from heel toward "sweet spot," a design principle still used by manufacturers in making irons.*

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289 as Jim Barnes did in the 1921 Open, and 288 as Gene Sarazen did in the Open of the following year is somewhat unbelievable in view of the equipment they had to use."

In 1930, though, clubmaking made its great leap forward, passing from its Stone Age to its Steel Age in what amounted to about one year. The onset of the Depression may have had much to do with it since golf manufacturing companies suddenly realized that if they were to stay in business they had to give the customer a lot more in the way of clubs than he had been given before. The changeover from the 1929 to 1930 models was radical. Practically every company came out in the latter year with woods and irons that were vastly improved over what had been produced before.

Wilson was lucky to have as its head design consultant the late Willie Ogg, a Scot expatriate. Ogg is remembered as having been a fairly good tournament player, a fine home pro and a course architect. What is overlooked, according to Joe Wolfe, is that he may have been the first of the great club designers.

Ogg understood fully what is meant by clubhead feel. To achieve it, he realized that the whole concept of balance and weight distribution had to be re-examined and the club, particularly the iron, rebuilt from the tip of the grip to the sole. He started by re-designing the clubhead, taking the weight away from the heel or hosel area and moving it toward the center of the club. This was done by flanging the once flat-back iron and shifting the "sweet spot" toward the middle of the blade. Ogg also improved the 1930 model woods by improving their shafts and striving for better balance between clubhead and shaft. Fancy inserts in the face of the woods, which had been introduced in the '20s and were a great source of annoyance because they constantly popped out, were dropped in 1930. In Wolfe's opinion, the principles of club construction that have been followed for the last 35 years were developed by relative-

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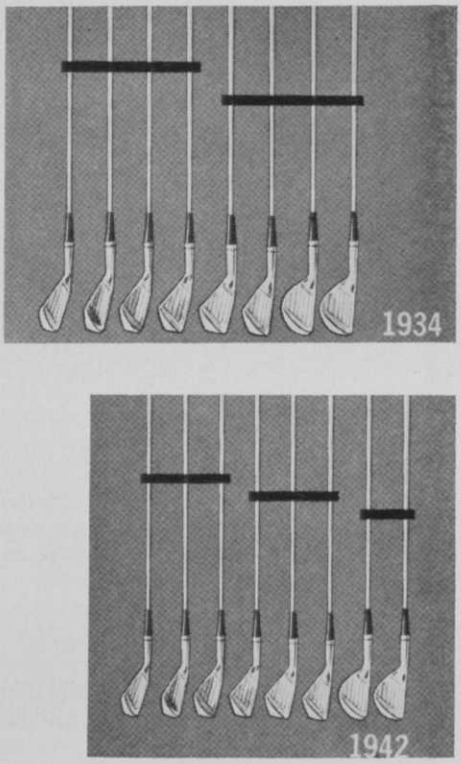


*Up to 1934, identical shafts were used for all clubs in same set, despite fact all clubheads within any set become progressively heavier. To compensate for this difference in clubhead weights, Wilson club designers, recognizing need for each club in set to have same "feel," were first to use two different shaft flexes in same set, in 1934. Flexible shafts were used in lighter and longer clubs, stiffer shafts in heavier and shorter clubs. In 1942, Wilson introduced three variations of flex action in same set. In 1947, four variations in the same set were introduced.*

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ly unsung Willie Ogg.

The introduction of alloy steel for shafts at this time proved to be a great boon to the golf industry. But clubmakers in general were undecided as to where the flex point should be. It wasn't until 1934 that the flex in the No. 6 through the 9 in Wilson irons was dropped below that of the No. 2 through 5 iron to compensate for the difference in weight among the various clubheads. Wilson later stepped down the flex point on its higher irons on two occasions.

Joe Wolfe started with Wilson in 1936. One of his first jobs was the menial and hazardous task of shrinking celluloid sheaths onto shafts by the hot water method, and then sanding them. He worked with a fire extinguisher only a few feet away.

Thereafter, he graduated to expediter and then moved up to supervisor, foreman, assistant superintendent and finally designer, proving that people did come up the hard way. Soon after the end of World War II, Wolfe was put on detached service to attend the needs and whims of Snead, Middlecoff, Maxwell, Boros and other Wilson staff pros and when the occasion called for it, offer them a shoulder to cry on.

Between 1938 and the beginning of World War II, club design and manufacturing continued to improve, but not as explosively as it had between 1930 and 1934. Chrome shafts came in and the necessity for sheathing went out. Persimmon became pretty much the standard material for fashioning wood heads. Clubhead weight was distributed better than it had been before through improved flanging and by cutting down on the diameter of the hosel. Experiments which eventually led to grip depth being reduced from 17 to 13 inches, to cut down shaft weight, were carried on. Composition grips were introduced to augment the heavier leather grips.

In 1941, Wilson went to strata-bloc construction of its woods, using laminations of maple, but the new type clubs didn't reach the market until after the war. Only 1,500 sets were manufactured by the company that year and all were conscripted by the Army.

Following the war, manufacturers

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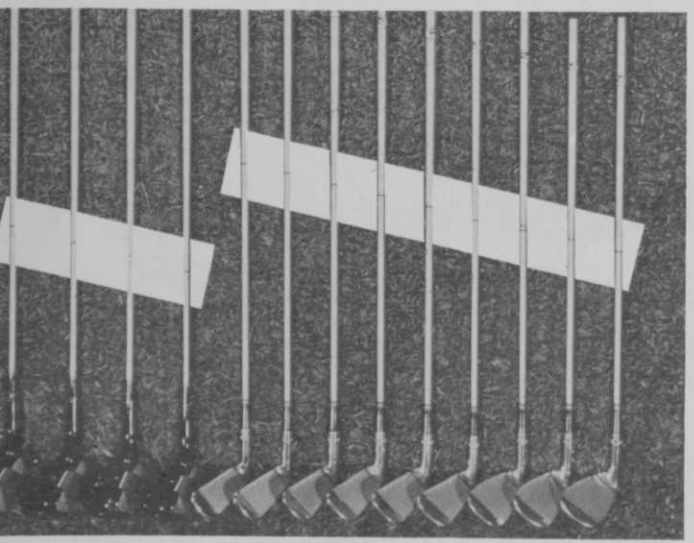
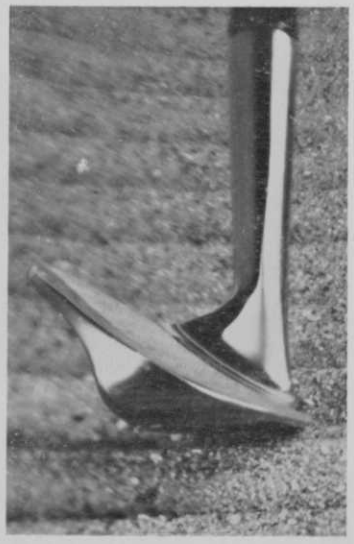


*In 1961, Wilson brought out this perfectly matched set of clubs. As the weight of each clubhead increased, flex action of each shaft was engineered to compensate for the change in weight between the clubheads.*



*Possibly first sand iron made, the "Bomber" was introduced by Wilson in 1930. Note the wide, heavy sole that made "explosion" shot possible. Concave clubface helped golfers scoop ball from traps. Later made illegal.*

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continued to improve their golf club products. Much better steel became available for shafts, with the result that they were made lighter and stronger, and it was possible to reduce their diameters in the lower extremities. Hosels were shortened and weight distribution through the clubhead was improved because designers were learning more tricks about locating the "sweet spot" in precisely the place where it should be.

The '50s and, of course, the '60s have been an era of refinement in the manufacture of golf clubs, part of it stemming from the whims and wishes of golfers. For example, the loft of the driver has been increased by 1 to 2 degrees so that players can get away from hitting line drives and get the ball up in the air. Iron lofts have been increased to make each iron one club stronger. The leading edge of iron clubs has been made rounder so that less turf and more ball are contacted. The quest for better weight distribution and balance has gone on in the reduction of the grip from 13 to 11 inches, and the use of different materials in fabricating grips so that even better balance can be squeezed out between shaft and clubhead. To give the player a better feel of the clubhead and enable him to keep hands and shaft ahead of the blade, there has been a strong trend to offset clubs. Manufacturers have even gone back to restoring fancy inserts in woods in order to reclaim the sexy look of the '20s and sell more clubs.

Where does it all lead? Joe Wolfe says the clubs of the future will be even better than they are today. One reason is that designers are not so dependent on the trial and error method as they were only five years or so ago. Testing machines, developed since 1962, are being rather widely used to detect weaknesses in the design concept and manufacture of clubs. Of late, too, more and more physicists, frustrated perhaps by their inability to play better golf, are becoming interested in the dynamics

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## Coming Events

Michigan Upper Peninsula Turfgrass Conference, Michigan State U., June 17.

Golf & Fine Turf Field Day, Rutgers U., June 21.

Penn State Turfgrass Field Day, Aug. 17-18.

Second Annual Turfgrass Management Conference for the State of Hawaii, U. of Hawaii, August 25 and 26.

Turfgrass Sprinkler Irrigation Conference, U. of California Conference Center, Lake Arrowhead, Calif., Aug. 26-28.

Northern Michigan Turfgrass Conference, Traverse City Country Club, Traverse City, Michigan, September 13.

Northeast Turf Conference, Concord Hotel, N. Y., September 19-21.

Pan American Hotel & Restaurant Exposition, Miami Beach Auditorium and Convention Hall, Miami Beach, Florida, October 29 through November 5.

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of the swing and the equipment. Something revolutionary in club construction may come out of their cerebrations.

There are limitations, however, as to what can be done with clubs, according to Wolfe. The diminishing return factor is an exorable one in club construction. For example, it was thought a few years ago that by lengthening shafts, especially those in the woods, more leverage might be realized. But weight and balance again asserted itself. Clubheads had to be made heavier to compensate for the increased length and weight of the shafts or swing weights were thrown off. Manufacturers came to the wise conclusion that pros might be able to effectively swing longer shafted clubs, but the average golfer can't.

When there is a temptation to tamper with the basic measurements or standards of clubs, designers first ask themselves how will it affect balance, and

what will it do to the average player's swing. It's all because of that diminishing return factor.

A club that is made lighter so that it can be swung faster, doesn't necessarily put more power in the hands of the golfer because critical weight may be removed from the clubhead. A shaft that is shortened on the supposition that it will enhance clubhead feel may decrease the arc of the swing to the extent that needed leverage is lost. Scientific design has become so much a part of club construction that tolerances in weight and length of the various components of a club have been reduced to near zero.

Joe Wolfe's close association with playing professionals in the last 20 years has been enlightening, frustrating and amusing. The temperaments of the great players, he observes, are pretty well mirrored in their reactions to the clubs that have been made especially for them, or the ones they have been asked to test.

Gene Sarazen, for example, has always been the most methodical test pilot on the Wilson staff. He works diligently with the clubs Wolfe sends down to him at Belleaire, makes notes on their good and weak points and generally is a very severe critic of overall construction. But his criticism always has been constructive and has been made not so much with himself in mind as the poor fellow who has to use the clubs to beat a ball around a course.

Postwar improvements in club design and manufacture, Sarazen freely concedes, enabled him to play competitively as long as he did.

Sam Snead is the best substitute for a testing machine that Wolfe or anyone else ever has run across. Snead adjusts quickly to anything that is handed to him and is particularly valuable in testing women's clubs. But the Slammer has dour moments when anything he swings isn't right. Wolfe explains that Sam isn't necessarily being cantankerous when this happens. It's just that he isn't given the right clubs to work with. "And, that," Joe says with a smile, "is what we are trying to find out."

The late Ed Oliver was the reluctant dragon of the Wilson staff when it came

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to switching to new clubs. "Some of the equipment he used," says Wolfe, "was disreputable, but the only way we could get it away from him was to steal it." Ed didn't care how a club looked as long as it felt comfortable.

Bill Casper of the present staff is, as you might expect, a great deal like Oliver when it comes to selecting equipment. Casper knows what he wants, carefully details it when he confers with the design staff, and usually is quite well pleased with the finished product. Arnold Palmer, a staff member until he turned capitalist a few years ago and started his own company, was somewhat indecisive in his years with Wilson.

"Arnie changed his mind a lot about clubs in the early years," Wolfe recalls. "He did a lot of experimenting, sometimes to the point of confusing himself. There were times when I delivered a dozen drivers to him and he used each one in a single practice round. Palmer probably had more trouble than the average pro in getting adjusted to equipment, but his experience proved what I have long contended—it takes a man from four to six years to become a super or near-super golfer because it takes that long for him to find or become fully adjusted to his equipment."

Joe Wolfe's days of migraine and vexation possibly were multiplied more by Cary Middlecoff than any man he ever dealt with. The good Memphis dentist was the most meticulous kind of a person about his golf clubs. He had paired micrometers where his eyes should have been and Wolfe often suspected that Cary swallowed a swing weight scale in his youth. The only thing that kept their friendship from erupting into a thing of violence was that away from a golf course and work bench, Cary was, and still is, a most affable kind of a person.

In his peak years, Middlecoff, like so many other circuit professionals, was most sensitive to the grips of his clubs. If they were off by the diameter of a thread he detected it. He was almost as fastidious about loft and club weight. If it had been only one club, the Wilson designers would have been happy to

suffer silently, but like everyone else, Cary was carrying 14. You can imagine the complications.

"Once," says Wolfe, "I delivered a set of clubs that Cary used to shoot a 64 and break a course record. I thought that I had designed the ultimate. But Cary decided he couldn't use the clubs. 'Joe,' he drawled, taking great pains to be apologetic, 'those clubs aren't quite right. On every shot I hit out there today I noticed the ball wasn't hanging the way I wanted it to!'" •

## Dick Daley dead at 64

Colonel Dick Daley, 1957 president of the Club Managers Association, died recently of a heart attack at age 64.

Daley's impact on CMAA and clubdom will long be felt. It was he who first appeared before Congress in 1955 to plead for reduction of excise tax on dues, which has finally come to pass.

Dick is survived by his wife, Fay, his son, Richard, and eight brothers and sisters.

## National Golf Camp open to girls and boys

Jack Redmond and Jimmy Nichols will head the National Golf Camp located in Windham Center, Connecticut, off the Connecticut Turnpike near Williamantic and the University of Connecticut.

The golf camp is open to boys and girls 8-20 years of age and will be conducted from June 25-August 6. They may register for one to five weeks of intensive instruction in fundamentals, course play and strategy.

Redmond and Nichols are having Ray Klein and Don Zabit to serve as guest instructors. Upon request, they will send you on loan a 16 mm film describing the camp activities. For further information or registration materials contact: Jack Redmond, 18 Hampton Avenue, Yonkers, New York 10710.