

at impact rather than brutal hitting strength is an essential element.

"During the past few years many devices for testing golf clubs, balls and so forth, have appeared. Most of the devices used are now in control of various individual manufacturers. However, should the PGA start a program of testing and approving golf equipment it would not be long before a real good line of testing apparatus could be assembled for use. As a starter, I believe that co-operation of such unbiased companies as General Electric would be forthcoming and at little or no expense.

"To set up a testing institute somewhat in line with *Good Housekeeping* would be a big task and require several years of real effort with full cooperation of the leading golf goods houses. Even so, a start is something—in fact is the most difficult part of all undertakings and if our association with its wealth of high class members cannot make a start, then the whole idea of a testing institute so ably put forth by a writer in GOLFDOM earlier this year must die a natural but sorrowful death."

#### 4.5 Seconds for 230 Yard Drive

Tests conducted by Gene Sarazen, Alvin Macauley, pres., and Col. J. G. Vincent, v. p. of engineering, Packard Motor Car Co., lacked the photo-electric measurement of the General Electric tests. Stop-watch timing at the Packard proving grounds indicated that the ball leaves Sarazen's driver at the rate of 130 miles an hour. Inspection of the super-slow motion instruction pictures made in 1930 by the PGA indicated the ball's speedy leap from the clubhead and as near as can be determined by pro golf investigators, the PGA pictures check with pro tests at the General Electric and Packard establishments.

Timers with stop-watches were placed where the car came abreast of Sarazen and along the track. Some timed the ball; others the car. Timing of Gene's swing was judged and after several trials Col. Vincent driving his Twin-six speedster synchronized the car and the swing. Driving out of an almost perpendicularly banked turn into the straightaway at a speed of 120 miles an hour, Vincent's signal for starting the swing was so perfectly caught by Sarazen that the clubhead met the ball as the car crossed the starting line.

Not one of the drives made by Sarazen varied more than a foot in distance. They

averaged 230 yards. On the first drive it took the ball 4.5 seconds to make the 230 yard flight. The car made the distance in 4.1 seconds. Each time the car beat the ball for the distance by 4/10 second. For about half the flight the ball led the car.

Gene concluded that the clubhead must have been traveling somewhere around 115 miles an hour at impact. It will be noted that the fastest time shown on the photo-electric tests is 110.5 miles per hour and with a very limber shaft. Maybe Gene guessed his clubhead speed too high, or it may be that his high speed is part of the answer to two national open championships this year.

### Pro Vet Notes Scores and Sales Keep Step

**E**LMER LOVING, veteran professional, observes that the far greater part of golf equipment bought by players who shoot 85 or better is bought from pros. Consequently, reasons Loving, it is greatly to the advantage of the pro to see that his players are so taught that they score well.

"The poorer golfers make up the greater part of the store trade and go for the 'Christmas jewelry' type of club," observes Elmer. "They go out to play and notice that the fellows who are getting the most fun out of the game are those who are scoring well. It also comes to their attention that the reason these other fellows are scoring well is because the pro is giving their games some attention. It's only human nature to take an interest in the fellow who is a customer of yours rather than a customer of a competitor, as the store purchaser quickly realizes. His next clubs, then, he buys from the pro.

"The same principle holds good in other lines of merchandising. A man buys a Cadillac because he expects service, but he expects it on his Cadillac purchase from the Cadillac dealer and not from the Packard dealer.

"It's not any fairer for a club member to expect pro service to purchasers of store goods than it would be for the Cadillac owner to expect interested and expert service from a Packard dealer; except with the idea of showing up the competitor's product and making a replacement sale.

"When the pros put across the idea that advisory and instruction service follows-up all of their sales they won't have much complaint about store competition," concluded Loving.