

and normal grips then mean standard balance readings on regular length clubs.

If heavy grips are applied on the same heads and shafts, the result will be lighter balance readings, but heavier gross weights. If both heavy heads and heavy grips are assembled on the same shafts, the results will be extra heavy gross weights but normal balance readings.

#### Center of Gravity Shifted

What really takes place when extra heavy grips are used without the head weights being increased, even on standard heavy weight clubs, is a shifting of the center of gravity towards the hands. This is referred to as high center of gravity and accounts for big name stars and others using light balance readings even though their clubs are noticeably heavier in gross weight than standard. Control is the important factor here which, of course, is another story.

Finally, we come to the effect of the fulcrum point B on special lengths. A 43-in. wood stepped up to 44-in. without changing either grip weight or gross weight, will cause the balance reading to change several points on the heavy side. This lowers the center of gravity and may result in head feel rather difficult to control. For that reason, the head weight is almost always reduced on extra long length clubs, while the grips are deliberately made heavier, with a view to producing playable clubs.

Making extra long length clubs with heavy balance readings is not difficult. Making the same clubs in the standard balance range poses no problem, but combining extra long lengths and smaller and lighter than regular grips is a different story, especially when light balance readings are specified on the Lorythmic scale.

The most difficult clubs of all to produce using this scale are the extra short length Irons with extra heavy balance readings in combination with extra large, heavy type grips. The No. 2 heads on D-6 Irons at standard length and with regular grips should weigh around 8 $\frac{7}{8}$  oz., which is on the heavy side. When the length is altered 1-in. on the short side of standard and the grips specified are the heavier all weather type, the head weights must be increased to between 9 $\frac{1}{4}$  and 9 $\frac{1}{2}$  ounces, if the same D-6 balance is to be maintained.

All this and more must be considered in talking head feel, center of gravity, balance point, swinging weight or any combination of these features.

## Humor in Milwaukee



Humor was injected into the badges worn by contestants, officials and others at the recent Miller Open in Milwaukee with all the real and legendary activities of persons who help put over a big pro tournament worked in by Frank Marasco, Milwaukee Sentinel sports cartoonist, who conceived this unique treatment.

## USGA Sets Tournament Dates for 1957

Joseph C. Dey, Jr., executive director, recently released the following schedule of USGA competitions for 1957:

### International

Aug. 30-31 — Walker Cup, Minikahda Club, Minneapolis, Minn.

### Championships

June 13-15 — Men's Open, Inverness, Toledo, O.

June 27-29 — Women's Open, Winged Foot GC, Mamaroneck, N. Y.

July 17-20 — Junior Amateur, Manor CC, Norbeck, Md.

July 29-Aug. 3 — Amateur Public Links, Hershey Park GC, Hershey, Pa.

Aug. 12-16 — Girls' Junior, Lakewood CC, Denver, Colo.

Aug. 19-24 — Women's Amateur, Del Paso CC, Sacramento, Calif.

Sept. 9-14 — Men's Amateur, Country Club, Brookline, Mass.

Sept. 30-Oct. 5 — Senior Amateur, Ridge-wood (N. J.) C. C.