

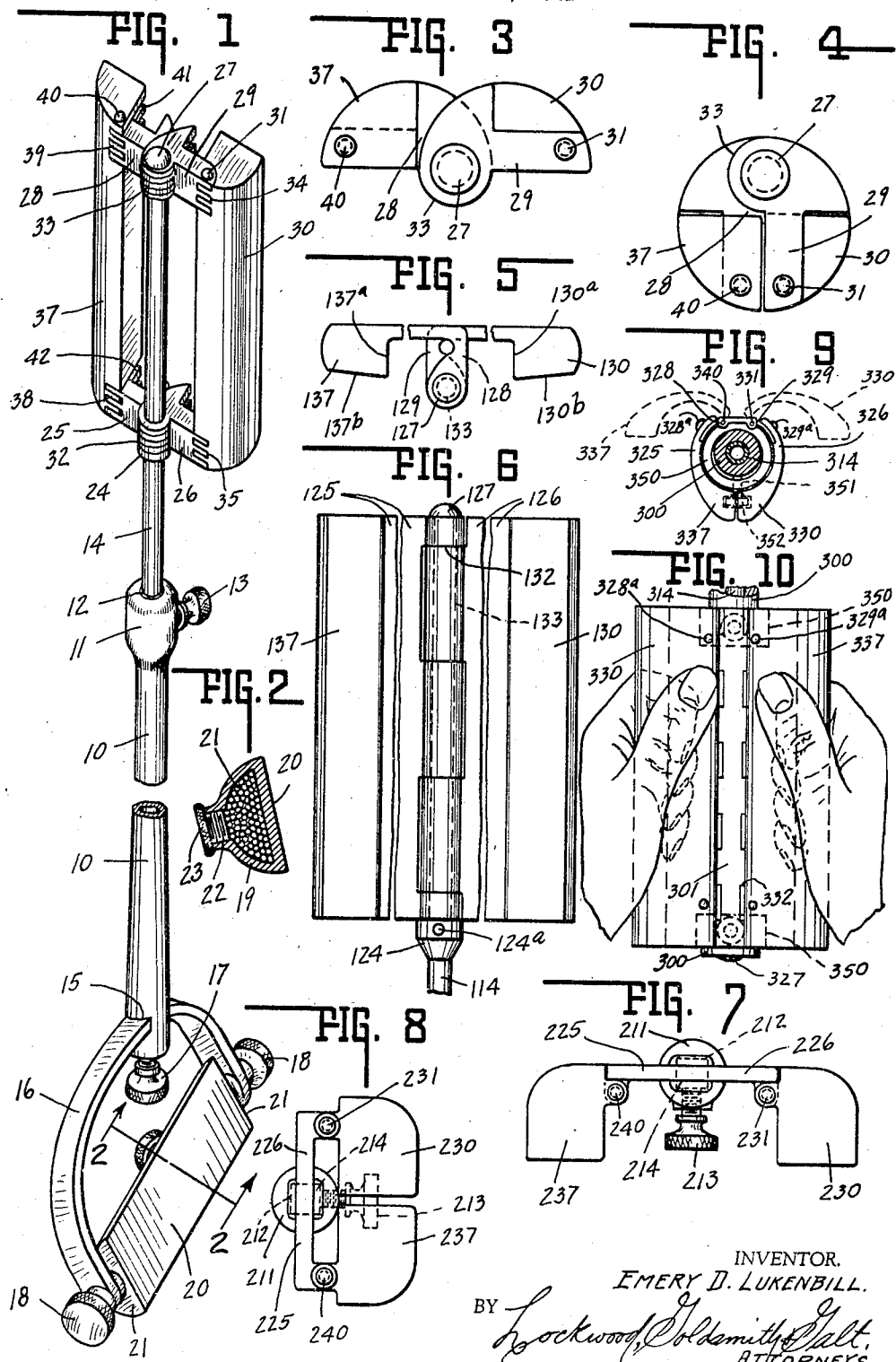
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GOLF CLUB

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GOLF CLUB

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This invention relates to an adjustable golf club and more especially a handle arrangement for the club, conveniently known as the putter.

One chief object of the invention is to provide a putter with a handle that permits the golfer to apply his hands to the grip at the same level and diametrically opposed with the palms facing each other and the thumbs parallel on the anterior surface of the grip, so that the putter may be swung as by one big hand to increase the accuracy of putting as to distance and direction.

Another object of the invention is to provide a handle structure which is of the aforesaid character and may be collapsed so that the same may be gripped in the conventional manner—that is, with one hand above the other, having reference to the longitudinal axis of the handle. Such a collapsible handle club when collapsed, permits the club to be readily inserted into and removed from the conventional golf bag.

Another object of the invention is to provide a plurality of adjustments so that the instructor or the golfer may adjust the club to the golfer's personal requirements. The club then may be used by the golfer for the mass, weight, length of handle, inclination of striking face, et cetera, all will have been determined. The golfer then can purchase a club corresponding to these adjusted factors and thus will have a club especially suited to that golfer's requirements.

One chief feature of the invention consists in providing an extensible and collapsible wing type handle structure for a golf club as will be more fully pointed out hereinafter.

Another feature of the invention consists in the various adjustments other than the aforesaid, which also may be incorporated, if and when desired, for the accomplishment of the last mentioned object.

Other objects and features of the invention will be set forth more fully hereinafter.

The full nature of the invention will be understood from the accompanying drawing and the following description and claims:

In the drawing,

Fig. 1 is a perspective view of a golf club embodying the invention, the collapsible handle being shown in extended position.

Fig. 2 is a transverse sectional view taken on line 2-2 of Fig. 1 and in the direction of the arrows.

Fig. 3 is a top plan view of the handle portion proper showing the collapsible handle in semi-collapsed position.

Fig. 4 is a similar view showing the handle in fully collapsed or conventional handle position.

Fig. 5 is a top plan view of a modified form of collapsible handle structure, parts being shown in the extended position.

Fig. 6 is a rear elevation thereof, parts being broken away.

Fig. 7 is a view similar to Fig. 5 and of a modified form of the invention including a modified form of handle and shank connection as well as modified wing arrangement.

Fig. 8 is a top plan view of the form of the invention shown in Fig. 7 with the wing parts shown in the collapsed position and the entire handle positioned at 90° to that shown in Fig. 7 with reference to the shank part of the club.

Fig. 9 is a plan view of a modified form of invention, same being of attachment character, parts being collapsed to normal handle position, the dotted lines indicating the extended wing positions.

Fig. 10 is a front elevational view of the form of the invention shown in Fig. 9 with wings extended and hands applied thereto.

In Fig. 1 of the drawing, 10 indicates a shank, as it were, having a socket portion 11 with a bore 12 therein. This socket portion includes a clamping screw 13 for clamping the handle stem 14 at the proper elevation to obtain the desired length of handle for the club. The lower end of the shank 10 includes therethrough a slot 15. An arcuate strap 16 is slidable in said slot and a clamping screw 17 coaxial with the portion 10 rigidly clamps the yoke 16 in adjusted position. Each end of the yoke 16 is apertured and extending therethrough is the retaining and clamping screw 18.

The club head proper is a hollow body 19 having a striking face 20 and opposite ends 21 are apertured to receive the screws 18 so that the inclination of the face 20 with reference to the plane including the yoke can be adjusted and maintained by said screws 18. It will be quite apparent the axis of the shank portion 10 always intersects the axis of the two aligned but oppositely directed clamping screws 18. The body portion 19 is hollow, as stated, see Fig. 2, and therein there is included a sufficient amount of weight material in the form of shot, or the like, 21. Access to said hollow body portion 19 is obtained through the opening 22 closed by the cap screw 23.

It will be understood from the preceding description, the length of the club handle may be adjusted by the telescopic arrangement existing between portions 10 and 14 and that the general inclination of the head with reference to the portion 10 may be adjusted by adjusting the position of the yoke 16 of the head 15 and the striking face inclination of the club may be adjusted through the screws 18 while the mass is adjusted by the addition or removal of shot to the head body portion. The resulting club structure so far described accordingly, is capable of universal adjustability and hence, is completely adjustable to any individual's requirements.

The telescopic handle portion 14 in Fig. 1 is shown mounting immediately above the shoulder

24 thereof, the two interfitting portions 25 and 26. In spaced relation thereto and at the free end of the portion 14 and retained by the head 27, are the similar portions 28 and 29. The portions 26 and 29 at their outer ends pivotally support the quadrant-like gripping portion 30, the same being secured to the portions 26 and 29 by the pivots 31. Portion 30 is one wing member.

The two portions 25 and 26 have an interfitting tongue and groove arrangement, as it were, indicated by the numeral 32, and the members 28 and 29 have a similar interfitting arrangement 33 therebetween. Also, the gripping member 30 has an interfitting arrangement of tongue and groove character, as indicated by the numeral 34, with the member 29 and a similar arrangement 35 with the member 26. The other hand grip or wing member 37 is pivotally connected through the interfitting tongue and groove connection 38 with the member 25 and at the lower end while the upper end of said wing member 37 with similar tongue and groove arrangement 39 is pivotally connected as at 40 to the member 23.

It will be understood each of the wing members 30 and 37 are suitably recessed as at 41 and 42 so that when the wing members 37 and 30 are collapsed inwardly toward each of the axes including the pivot members, the parts may assume the position as shown in Fig. 3. This is the partially collapsed position. When the partially collapsed constructions are further collapsed toward each other in directions opposite to that of the initial collapse, as shown in Fig. 3, the resulting structure—see Fig. 4—is a compact hand grip portion so that the club then may be gripped in the conventional manner, and readily inserted into and removed from a golf bag.

When the parts are positioned as shown in Fig. 3, it will be apparent that the two hands may be positioned side by side at opposite sides of the handle with the finger tips approximately touching and with the thumbs extending downwardly along the grip and substantially side by side and in parallel. When the parts are positioned as shown in Fig. 1, it will be noted the thumbs engage the front portion of the wing members 37 and 30 and the finger tips may be curled around same and seat in the resulting groove arrangement between these two wing members and behind the portion 14 included between the interfitting arrangements 32 and 33. Such a gripping is illustrated in Fig. 10.

In Figs. 5 and 6 of the drawing, 114 indicates a shank or handle rod provided with a collar 124 pinned as at 124a and further provided with a retaining cap 127. The two wings are indicated by the numerals 130 and 137 and herein there are provided plate portions indicated by numerals 125 and 126 for wings 137 and 130, respectively, and integral therewith as shown in Fig. 5. Each of these wing portions is of the interfitting tongue and groove or conventional hinge type, as indicated at 132. The portions 132 are apertured as at 133 and the shaft 114 extends therethrough. The portions 132 constitute angular extensions of the portions 125 and 126, said angular extensions being indicated by the numerals 123 and 129.

When the wings are extended to the position shown in Fig. 5, there is provided a groove between the hinge portion of each wing and the straight body portion 137 thereof and also between the hinge portion and the body portion 130 thereof. These two finger receiving grooves pro-

vide the space necessary for finger reception when both hands are applied to the club handle with the wings extended and with the thumbs parallel and on the front face of the wings when extended, such as diagrammatically illustrated in Fig. 10.

The club shown in Figs. 5 and 6 may have its wings collapsed and in that event, the inside face 137a and the inside face 130a partially embrace the hinge construction and the rearward faces 130b and 137b substantially abut and when so positioned, naturally the angular portions 129 and 123 form a front face of the handle while the previous front faces now form side faces thereof, and the side faces of the handle when in extended position now combined form the rear face. When thus collapsed, the handle may be readily inserted into and drawn from the golf bag. When thus collapsed, the handle may be gripped in the conventional manner, that is, with one hand above the other, or in other words, the hands may be in longitudinal alignment instead of in parallel.

It will be understood, of course, with reference to the preceding forms of the invention as well as the others subsequently to be described, that certain friction locks, et cetera, may be provided to retain the respective parts in the collapsed or extended or semi-extended positions, the parts being readily movable when intentionally subjected to sufficient force for movement.

Reference now will be had to Figs. 7 and 8. In this form of the invention there is illustrated the socket portion 211 having the rectangular socket recess or aperture 212. The rod portion 214 has a corresponding cross section outline so as to be receivable by socket 212. It is retained on said socket by the clamp screw 213. The rod 214 carries the diverging portions 225 and 226 and these may constitute a flat plate-like arrangement or may constitute upper and lower bars, as desired.

Suffice to say, the outer ends include pivots 231 and 240 and these pivots pivotally support the elongated wing members 237 and 230, respectively. When extended, the parts are positioned as illustrated in Fig. 7. When collapsed, the parts are illustrated as in Fig. 8.

In view of the fact the overall frontal width of the collapsed handle is considerably greater than that shown in Fig. 4 or that which is obtained with the handle shown in Figs. 5 and 6, whenever the golfer desires to grip the collapsed handle shown in Fig. 8 with the conventional overlapping or superposed hand grip, the entire handle structure is removed from the socket 212 and the portion 214 is turned 90° to its previous position and resecured in said socket. This change of handle position is illustrated in Fig. 8 and, therefore, the wider portion of the handle when in collapsed position again is parallel to the side of the handle while the narrowest portion of the handle when collapsed now constitutes the frontal portion thereof.

Reference now will be had to Figs. 9 and 10. This form of the invention constitutes an attachment form. It is, in one sense, quite similar to the invention shown in Figs. 7 and 8 in that there are two wing portions, each hingedly mounted upon axes parallel to but slightly spaced apart and upon opposite sides of the axis of the supporting shaft.

Various methods of detachably mounting a handle structure of this general character upon a conventional handle of a club may be utilized.

That selected for illustration purposes only is one that is comparatively simple, will rigidly secure the handle attachment to the conventional club handle and will rigidly secure the same thereto without serious deformation or modification of the conventional handle.

In Figs. 9 and 10, the numeral 314 indicates the shank portion having the head 327 and there is provided the handle portion 300 of conventional character. Herein a base plate 301 is provided at opposite edges with alternate tongue and groove formation 332 and herein the two wings 337 and 330 have their portions 325 and 326 terminating in complementary tongue and groove formations 328 and 329, respectively. The hinge axes are indicated by the numerals 340 and 331.

Adjacent the opposite ends of the resulting handle structure and integral with or rigidly secured to the base portion 301 is a pair of spaced rings 350 and these rings are threaded at 351 to receive a set or clamp screw 352. To mount the attachment upon a conventional club handle, the set screws 352 of the two rings are backed out and the rings are applied to the handle and when the base portion 301 of the structure is properly aligned and properly positioned on the conventional handle, the set screws 352 are threaded inwardly to clamp the rings rigidly in position on the conventional handle of the golf club.

In that manner the base 301 is rigid with the club and since the same hingedly supports at 331 and 340 the wings 330 and 337 by means of the portion 329 and 328, riveted thereto as at 329a and 328a, the two wings are properly secured to the handle of the golf club and are adapted to be extended into wing formation for gripping as illustrated in Fig. 10, or for collapse as shown by the full lines in Fig. 9 for conventional superposed handle gripping or for insertion into or withdrawal from the golf bag. The dotted lines in Fig. 9 indicate the extended wing position.

It will be also observed that the confronting faces of the two wing portions when collapsed are recessed to accommodate the adjustable set screws so that when the wings are collapsed, all the anchoring and like portions are substantially concealed within the wings.

While the invention has been illustrated and described in great detail in the drawing and foregoing description, the same is to be considered as illustrative and not restrictive in character.

The several modifications described herein as well as others which will readily suggest themselves to persons skilled in this art, all are considered to be within the broad scope of the invention, reference being had to the appended claims.

The invention claimed is:

1. In a golf club having a central handle portion, the combination of a pair of elongated, hand engageable, portions parallel thereto and pivotally supported by the handle for movement toward and away from the latter, said hand engageable portions when extended providing a finger receiving rearward opening.

2. A club as defined by claim 1, characterized by the hand engageable portions including angular extensions terminating in interfitting hinge-like portions, said handle portions extending pintle fashion through the interfitting hinge-like portions.

3. A club as defined by claim 1, characterized by the hand engageable portions including angular extensions terminating in interfitting hinge-like portions, said handle portions extending pintle fashion through the interfitting hinge-like portions, the rear faces of the hand engageable portions when collapsed being capable of abutting, the angular end portions simultaneously forming a front face for conventional gripping purposes.

4. A club as defined by claim 1, characterized by the addition of means extending oppositely from the handle portion and pivotally supporting at the free ends the said hand engageable portions, the latter each being rotatable toward the other for collapsed positioning.

5. A club as defined by claim 1, characterized by the addition of means extending oppositely from the handle portion and pivotally supporting at the free ends the said hand engageable portions, the latter each being rotatable toward the other for collapsed positioning, said means comprising divergently arranged portions pivotally connected at adjacent ends to each other and the handle portion and collapsible towards each other by rotation in directions opposite that of the rotation of the hand grip portions toward each other upon said means.

6. A club as defined by claim 1, characterized by the addition of means extending oppositely from the handle portion and pivotally supporting at the free ends the said hand engageable portions, the latter each being rotatable toward the other for collapsed positioning, said means comprising divergently arranged portions pivotally connected at adjacent ends to each other and the handle portion and collapsible towards each other by rotation in directions opposite that of the rotation of the hand grip portions towards each other upon said means, the hand grip portions also moving with said means and when fully collapsed providing a cylindrical-like grip for conventional gripping purposes.

7. A handle structure for a club including a shaft portion, a pair of wings each pivoted on an axis having the same general direction as the shaft axis, said wings being pivotally collapsible towards each other for shaft portion envelopment, and oppositely tiltable for extension into diverging relation, each wing including a body portion formed and arranged for thumb front facial contact and palm engagement of the wing free edge, and finger rear facial contact, the fingers of both hands being nestable in the resulting rearward openings formed between the shaft portion and the free edges of the wings when the latter are extended, the thumbs having the same general direction relative to each other and the shaft portion and at opposite sides of the shaft portion.

8. In a golf club, the combination with a head supporting shaft, a pair of elongated engageable wing portions of appreciable width, and means pivotally supporting the wing portions for movement in diverging extended position, the wing portions when so positioned providing for two-hand parallel gripping and when collapsed providing for hand substantial envelopment of the shaft for superposed parallel gripping or tandem gripping as desired.

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