Aug. 11, 1925. 1,549,265

T. H. KADEN

CONVERTIBLE GOLF CLUB

Filed Aug. 5, 1924

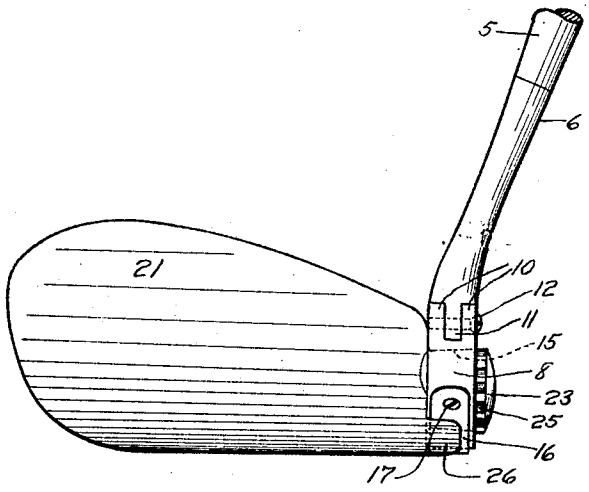


Fig. 1.

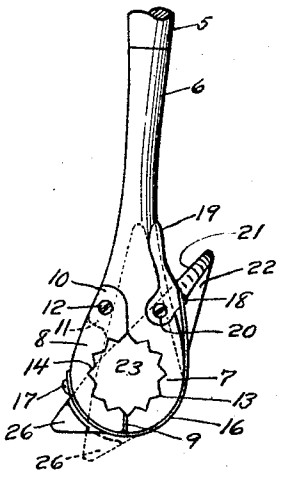


Fig. 2.

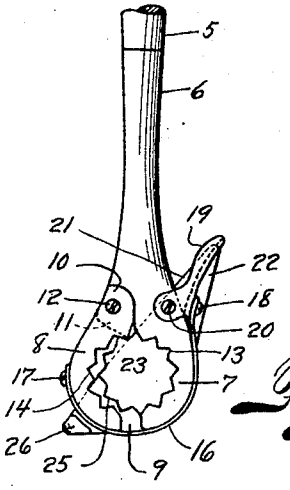


Fig. 3.

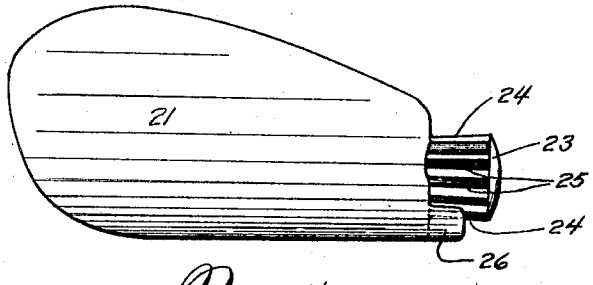


Fig. 4.

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UNITED STATES PATENT OFFICE.

THEODORE H. KADEN, OF ATWOOD, KANSAS.

CONVERTIBLE GOLF CLUB.

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To all whom it may concern:

Be it known that I, THEODORE H. KADEN, a citizen of the United States, and a resident of Atwood, in the county of Rawlins, State of Kansas, have invented certain new and useful Improvements in Convertible Golf Clubs, of which the following is a specification.

This invention embodies improvements in adjustable or convertible golf clubs.

The primary object of the invention has been to devise a simple and durably effective blade-mounting golf club structure that is so formed, of but relatively few parts little liable to get out of order and comparatively inexpensive to manufacture and assemble, as to provide for axially rotary graduated adjustments of the blade, whereby its angular disposition may be variably altered to assist in determining the trajectory or line of flight of the golf ball, which trajectory control is now customarily effected by the employment of a number of accessory or separate clubs especially designed for each distinctive play, my particular improvements residing in the novel regulating or controlling means for mounting the blade to permit of the facile varying of its said graduated adjustments, as the occasions arise, and maintaining the blade firmly set or rigidly locked when so variably adjusted.

To a large extent the foregoing objects may be accomplished in practice with a single club as an adjustably assembled unit, including a single appropriately formed blade capable of functioning plurally in substitution for most, if not all, of the various separate clubs now employed in playing golf, although, in so far as my particular improvements are concerned, any appropriate set of detachable blades, constructed in accordance with certain parts of my improvements, could if desired be likewise employed with my improved structure for mounting said blades, and all of the foregoing would be true regardless of the nature of the exact material, such as metal or wood, of which the blade or the mountings therefor might be formed. As a matter of fact, however, it has generally been my intention to employ only a single blade, for the most part, that is formed of metal, while likewise forming the mountings therefor of metal, the attachment thereof to the wooden shaft of the club being made by means of an integral tapering or conical sleeve-like socket or ferrule-like coupling extension, and for the sake of simplicity I am so disclosing the improvements in the drawings and the following description, but it is to be understood at the outset that such disclosure is merely by way of general illustration only, without the intention of imposing any unnecessary restrictions or limitations on my improvements in the main.

The foregoing and other objects, advantages and features, however, as well as the novelly combined means for attaining the same, will all be so clearly apparent it is believed, as incidental to the following disclosure, that it would serve no useful purpose to further enlarge upon the same initially, and with these general remarks, therefore, reference will now be immediately had to the accompanying drawings, illustrating a practical embodiment of the improvements, in which drawings

Figure 1 is a front elevational view of the lower portion of a golf club embodying my improvements; Figures 2 and 3 are end elevational views of the same, respectively showing the blade in locked and unlocked adjusted positions; and Figure 4 is a front elevational view of the blade as detached from its mountings.

The numeral 5 designates the wooden shaft of the club, with its lower end portion fitted within a conical sleeve or ferrule-like metal element 6, forming an integral extension of a lower jaw 7 which is opposed by a hinged jaw 8, the lower terminal faces of said jaws being spaced apart slightly as indicated at 9.

Where the ferrule construction 6 is employed, although the rigid jaw 7 could be a direct continuation of the shaft 5, and where accordingly the jaws 7 and 8 are formed of metal, as preferably is the case, then the adjustable jaw 8 could as a matter of fact be hingedly joined to the ferrule member as a springy integral continuation thereof. As illustrated, however, and which may be the preferable construction, the movable jaw 8 is swung from or pivotally connected at its upper end to the ferrule element 6, as by

means of a pair of spaced ears 10 on the former encompassing a tongue 11, formed on the lower forward end of the latter, or vice versa, with a pivot pin 12 extending transversely through said tongue and ears.

The inner opposed faces of these jaws are of semicircular disposition, and are transversely serrated as respectively indicated at 13 and 14, the one face being complementary of the other to form a transversely serrated opening between the jaws, which opening preferably is slightly conical to converge or taper inwardly, as is indicated by the dotted lines 15 of Figure 1.

16 designates a strap or band that is secured at one end, as at 17, to the forward face of the hinged jaw 8, thence extending peripherally around the lower faces of both jaws, across the gap 9, and contiguously along the rear face of the fixed jaw 7, towards the upper portion of which latter the other end of the strap is attached, as at 18, to a suitable controlling and clamping device, such as the short lever 19 pivotally supported as at 20. For neat fitting, the lever 19 may be of channeled form and with the spaced lower supporting ears thereof seated flush within recesses formed in the side faces of the fixed jaw. The band or strap 16 is preferably formed of freely flexible metal, but which will stoutly resist tensile strain, and the clamping lever 19 is, of course, for the purpose of controlling the easing-up on and tautening of the strap 16, and for securely holding the band clamped in its tautened position, as will be clearly evident from Figures 2 and 3.

The front face of the adjustable blade is indicated at 21 and its rear face at 22, the inner end edge face thereof being provided with an axially projecting short stud 23, preferably formed as a conically shaped body, tapering inwardly as indicated at 24, the peripheral surface of which is formed with an annular series of longitudinally disposed teeth or serrations 25, for complemental reception by the registering recesses of the analogously serrated faces 13 and 14 of the jaws 7 and 8, when the stud is positioned in place within the transverse opening between the jaws.

26 designates a short lug, which may be longer than actually shown, that is projected from the forward edge face of the blade, at the inner end edge face thereof, in substantially spaced relation to said serrated stud 23, the object of said lug being to protect or guard the forwardly attached end portion of the strap 16, the lug 26 being positioned immediately in advance of said strap end, when the blade is attached to the jaws, as will be apparent.

With the band 16 adjustably encompassing the peripheral faces of the jaws 7 and 8 in relatively unattached disposition, as a binding strap, from its securely fixed position 17 to its movably secured position 18, it follows that the stud 23 of the golf club blade will be rigidly clamped within the opening between the jaws when the controlling lever 19 is operated to the closed clamping position, of Figures 1 and 2, for tautening the band, the interlocking attachment being made the more secure by the interengaging character of the serrated surfaces 13—14—25 and the tapering form of the stud 23 coacting with the analogously formed opening between the jaws, thus insuring against even any minute rotary and axial slipping displacement. Upon the binding strap 16 being eased off, however, as when the lever 19 is operated to the open position of Figure 3, it is equally obvious that the stud 23 will then be released and may be rotatably adjusted within its opening support, for varying the angularity of the blade, or the blade may be detached and substituted for by another one, whichever may be desired.

Also, it may finally be stated that another very advantageous feature of the improvements is that, whether a single blade or an appropriate set of blades be employed for attachment to a single club shaft, the blade may be detached and the angularity of the disposition of the parts thus avoided for more convenient and compact carrying and packing as luggage.

Although I have thus fully disclosed the improvements, it will nevertheless be understood that I do not necessarily restrict myself to all of the details exactly as shown and described, excepting as they may come within the terms of the claims made, or equivalent elements, arrangements or combinations thereof, or as fairly interpreted in the light of the specification if necessary, for it is obvious that alterations or additions may be made without departing from the spirit of the invention.

What I do claim, as new and patentable, is:—

1. In a convertible golf club, the combination of a shaft having a lower jaw, a second jaw hingedly associated therewith, the said jaws having complementally recessed inner faces providing a transverse opening therebetween, a blade having an endwise axially disposed stud for projection through said opening, and means for clamping said jaws to said stud in varying adjusted positions within said opening.

2. In a convertible golf club, the combination of a shaft having a lower jaw, a second jaw hingedly associated therewith, the said jaws having complementally recessed inner faces providing a transverse inwardly tapering opening therebetween, a blade having an endwise axially disposed inwardly tapering stud for projection through said open-

ing, and means for clamping said jaws to said stud in varying adjusted positions within the said opening.

3. In a convertible golf club, the combination of a shaft having a lower jaw, a second jaw hingedly associated therewith, the said jaws having complementally recessed and transversely serrated inner faces providing a transverse opening therebetween, a blade having an endwise axially disposed and longitudinally serrated stud for projection through said opening, and means for clamping said jaws to said stud in varying adjusted positions within said opening.

4. In a convertible golf club, the combination of a shaft having a lower jaw, a second jaw hingedly associated therewith, the said jaws having complementally recessed and transversely serrated inner faces providing a transverse inwardly tapering opening therebetween, a blade having an endwise axially disposed and longitudinally serrated inwardly tapering stud for projection through said opening, and means for clamping said jaws to said stud in varying adjusted positions within said opening.

5. In a convertible golf club, the combination of a shaft having a lower jaw, a second jaw hingedly supported at its upper end in association therewith, the said jaws having complementally recessed inner faces providing a transverse opening therebetween, a blade having an endwise axially disposed stud for projection through said opening, clamping control means associated with one of said jaws, and a clamping band secured at one end to the other of said jaws, thence extending peripherally of the lower portions of said jaws, spanning the gap therebetween, and connected at its other end to said clamping control means.

6. In a convertible golf club, the combination of a shaft having a lower jaw, a second jaw hingedly supported at its upper end in association therewith, the said jaws having complementally recessed inner faces providing a transverse inwardly tapering opening therebetween, a blade having an endwise axially disposed inwardly tapering stud for projection through said opening, clamping control means associated with one of said jaws, and a clamping band secured at one end to the other of said jaws, thence extending peripherally of the lower portions of said jaws, spanning the gap therebetween, and connected at its other end to said clamping control means.

7. In a convertible golf club, the combination of a shaft having a lower jaw, a second jaw hingedly supported at its upper end in association therewith, the said jaws having complementally recessed and transversely serrated inner faces providing a transverse opening therebetween, a blade having an endwise axially disposed and longitudinally serrated stud for projection through said opening, clamping control means associated with one of said jaws, and a clamping band secured at one end to the other of said jaws, thence extending peripherally of the lower portions of said jaws, spanning the gap therebetween, and connected at its other end to said clamping control means.

8. In a convertible golf club, the combination of a shaft having a lower jaw, a second jaw hingedly supported at its upper end in association therewith, the said jaws having complementally recessed and transversely serrated inner faces providing a transverse inwardly tapering opening therebetween, a blade having an endwise axially disposed and longitudinally serrated inwardly tapering stud for projection through said opening, clamping control means associated with one of said jaws, and a clamping band secured at one end to the other of said jaws, thence extending peripherally of the lower portions of said jaws, spanning the gap therebetween, and connected at its other end to said clamping control means.

9. In a convertible golf club, the combination of a shaft having a lower jaw, a second jaw hingedly supported at its upper end in association therewith, the said jaws having complementally recessed suitably surfaced inner faces providing a transverse opening therebetween, a blade having an endwise axially disposed suitably surfaced stud for projection through said opening, the said blade also having a protecting guard lug projected from its forward end edge face in spaced relation to said stud, clamping control means associated with one of said jaws, and a clamping band secured at one end to the other of said jaws, thence extending behind said guard lug peripherally of the lower portions of said jaws, spanning the gap therebetween, and connected at its other end to said clamping control means.

10. As an element unit of a convertible golf club of the character disclosed, a ferrule-like member, for attachment to the lower end of the club shaft, terminating at its lower extremity in a fixed jaw, a complementary opposed jaw hingedly connected at its upper end to said ferrule-like member, the said jaws having complementally recessed suitably surfaced inner faces providing a transverse opening therebetween, clamping control means associated with one of said jaws, and a clamping band secured at one end to the other of said jaws, thence extending peripherally of the lower portions of said jaws, spanning the gap therebetween, and connected at its other end to said clamping control means.

11. As an element unit of a convertible golf club of the character disclosed, a fer-

rule-like member, for attachment to the lower end of the club shaft, terminating at its lower extremity in a fixed jaw, a complementary opposed jaw hingedly connected at its upper end to said ferrule-like member, the said jaws having complementally recessed suitably surfaced inner faces providing a transverse opening therebetween, a clamping control lever pivotally associated with said fixed jaw, and a clamping band secured at one end to said hinged jaw, thence extending peripherally of the lower portions of said jaws, spanning the gap therebetween, and connected at its other end to said control lever.

In testimony whereof, I affix my signature.

THEODORE H. KADEN.