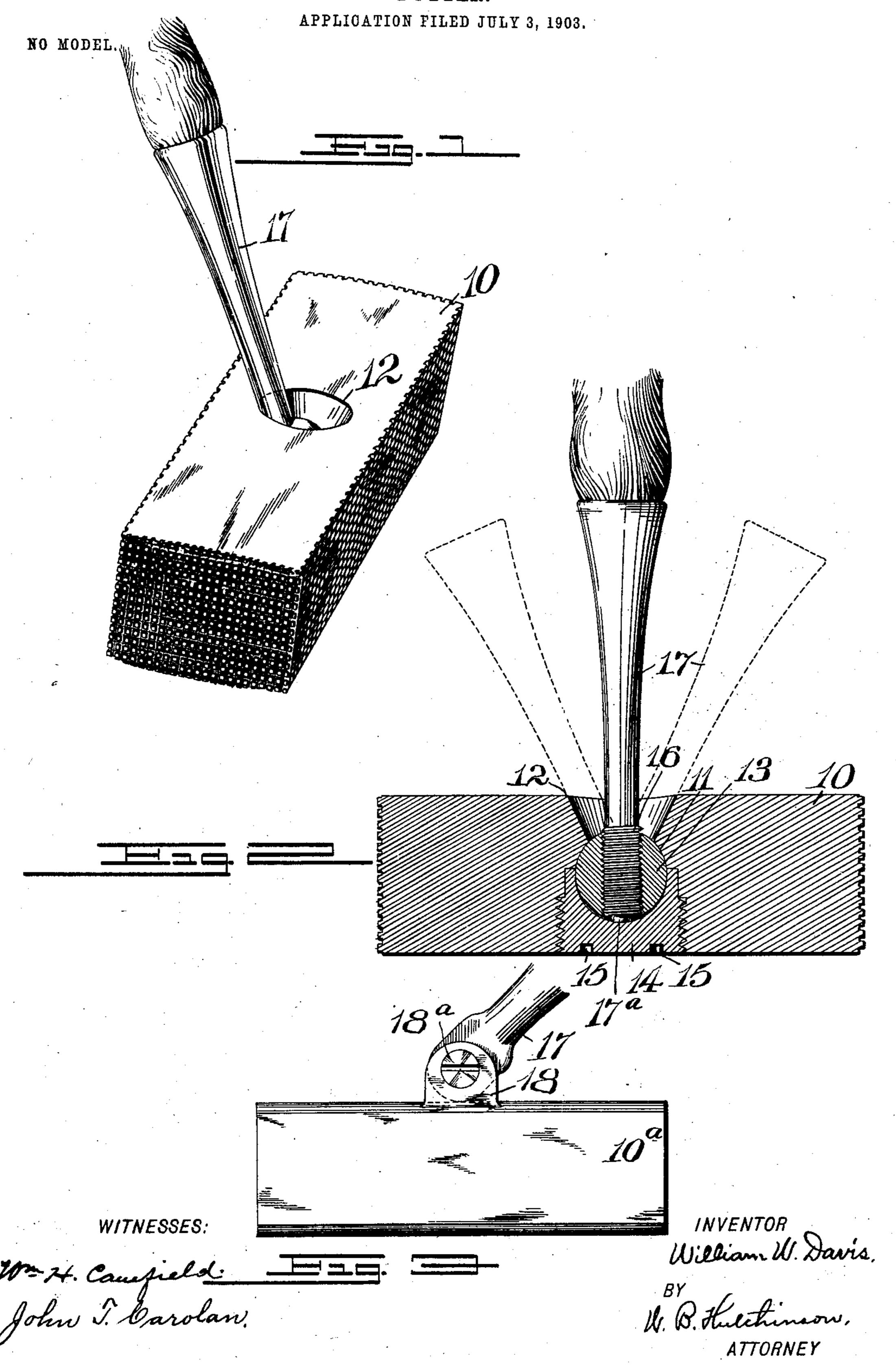
W. W. DAVIS.
PUTTER.



## United States Patent Office.

WILLIAM W. DAVIS, OF EAST ORANGE, NEW JERSEY.

## PUTTER.

SPECIFICATION forming part of Letters Patent No. 749,174, dated January 12, 1904.

Application filed July 3, 1903. Serial No. 164,129. (No model.)

To all whom it may concern:

East Orange, in the county of Essex and State of New Jersey, have invented certain new and 5 useful Improvements in Putters, of which the following is a full, clear, and exact description.

My invention relates to improvements in

putters and other tools.

The invention is primarily intended as an 10 improved putter for use in playing golf.

In putting it is desirable to have a tool which will hang accurately, be balanced to the satisfaction of the user, and be capable of striking a true stroke, to the end that the ball may be 15 accurately placed. It seldom happens that the putting green is absolutely level, and so the player usually fixes in his mind an angle which appears what he considers the right relation to the position of the ball and the hole in which 20 the ball is to be placed, then strikes the ball with what he considers the right force to have it reach the first objective, and roll from thence into the hole. It has been found that in carrying out an angle of this kind it is desirable and, 25 in fact, necessary to have the lines of the toolhead made so as to not confuse the angle which the player has in mind. In other words, if the tool-head is curved or has unusual projections it has a tendency to confuse the mind, and so 3° render the stroke inaccurate.

One object of my invention is to remedy this difficulty, which I do by making the tool rectangular and providing it with four strikingfaces, and this I find makes accuracy more 35 likely than if an ordinary tool is used.

Another object of my invention is to produce a putter which is adjustable on the end of the handle, so that it may be hung at any desirable angle to handle, to the end that it 4° may meet the individual requirements of a player.

Another object of my invention is to produce a quick, sure, and reliable means of fixing the position of the head in relation to the 45 handle.

Still another object of my invention is to produce an adjustable connection between the head and the handle, which can be also applied to other tools.

With these ends in view my invention con-

sists of certain features of construction and Be it known that I, William W. Davis, of | combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, 55 in which similar figures of reference refer to similar parts throughout the several views.

Figure 1 is a perspective view of the head portion of a putter, showing my improvements. Fig. 2 is a longitudinal section of the same, 60 with dotted lines showing the movement of the handle in relation to the head; and Fig. 3 is a side elevation of a modification of the invention.

The head 10 is of a generally rectangular 65 shape, the sides or striking-surfaces being perpendicular; but the top and bottom can be curved outward slightly, if preferred. The four surfaces are preferably roughened, so as to have a good contact with the ball, and near 70 the center the ball is chambered, as shown at 11 in Fig. 2, the upper portion of the chamber being in the form of the section of a sphere, so that the ball 13 may fit nicely against it, while the lower portion is closed by the cup 75 14, which forms a part of the ball-seat and which has preferably wrench grips or holes 15 to enable the cup to be screwed firmly into the head. The cup should fit nicely in the chamber of the head, so that the bottom will be flush 80 with the bottom of the head and the cup and chamber 11 form a socket in which the ball 13 fits, so as to turn freely.

The ball 13 is pierced diametrically and screw-threaded, so as to receive the threaded 85 end 16 of the shank 17, which forms the lower end of the tool-handle. The shank 17 extends entirely through the ball 13, and its extreme lower end is rounded, as shown at 17<sup>a</sup>, so as to impinge without injury upon the bearing- 90 surface of the cup 14. The shank 17 extends through a hole 12 in the top of the head 10, this hole being largest at its top, so as to provide for the necessary movement of the shank.

It will thus be seen that when the shank 17 95 is turned so as to free the ball 13 the ball and shank may be turned freely; but by turning down the shank slightly the end 17<sup>a</sup> engages the surface of the cup 14, forcing the ball against the top wall of the chamber 11, and 100 illustrated.

the ball is thus instantly and firmly fixed, at the same time fixing the relation of the shank 17 to the head 10. It will be seen that this enables the shank to be set at any desired angle to the head, so that the tool may be used in a manner to have its sides strike the ball or to have its ends hit the ball, as desired. It will also be seen that while I design this arrangement for a putter it can be applied to other tools or clubs, if desired, without affecting the principles of the invention

In case the tool is always to be used with its sides to engage the ball the form of joint shown in Fig. 3 can be employed, in which case the lower end of the shank 17 is simply hung between ears 18 on the top of the head 10°, and a screw-pintle, which connects the ears and shank, can by tightening fix the position of the shank in relation to the head. I show this latter modification to emphasize the fact that I do not limit my invention to the precise form of joint illustrated in Figs. 1 and 2 or to any form of joint, but claim, broadly, any adjustable connection between the shank and the head, though I also claim the special joint

In practice I find that aluminium makes a desirable head; but obviously any suitable material can be used for this purpose.

Having thus described my invention, what 30 I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the head and handle adjustably in relation to each other, and means for fixing the position of the head, a ball held 35 in a chamber of the head and the shank having a screw connection with the ball and projecting through the same.

2. The combination of the head, the ball held in a chamber of the head, and the shank 40 extending into the head and through the ball, the shank and ball having a screw connection.

3. The combination of the chambered head, the cup fitting into the chamber of the head, the ball held in the said cup and chamber, and 45 the shank extending outward from the chamber, the said shank having a threaded end which fits in and extends through the ball.

4. A putter having a head with four flat faces at right angles to each other, each forming a 50 striking-surface.

In testimony whereof I have signed my name to this specification in the presence of the subscribing witnesses.

WILLIAM W. DAVIS.

Witnesses:

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WARREN B. HUTCHINSON, THERON DAVIS.