

(No Model.)

W. T. JENNINGS.  
GOLF CLUB.

No. 550,976.

Patented Dec. 10, 1895.

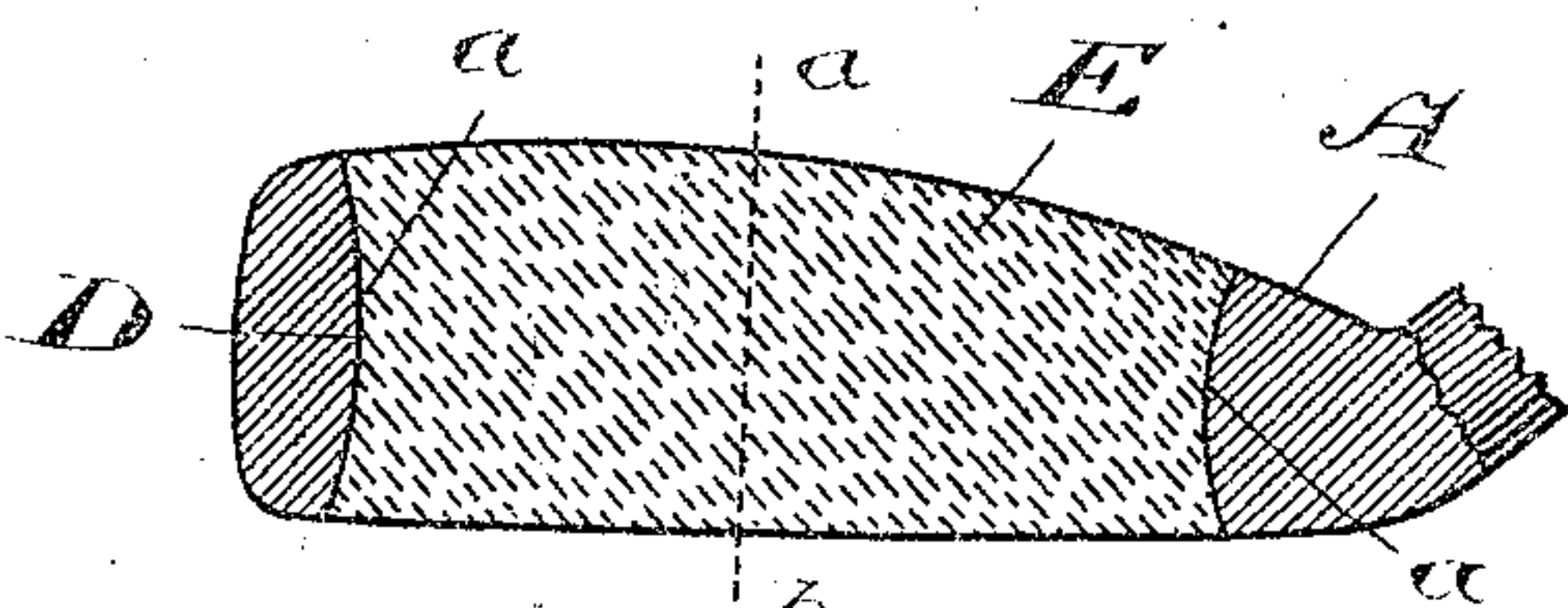
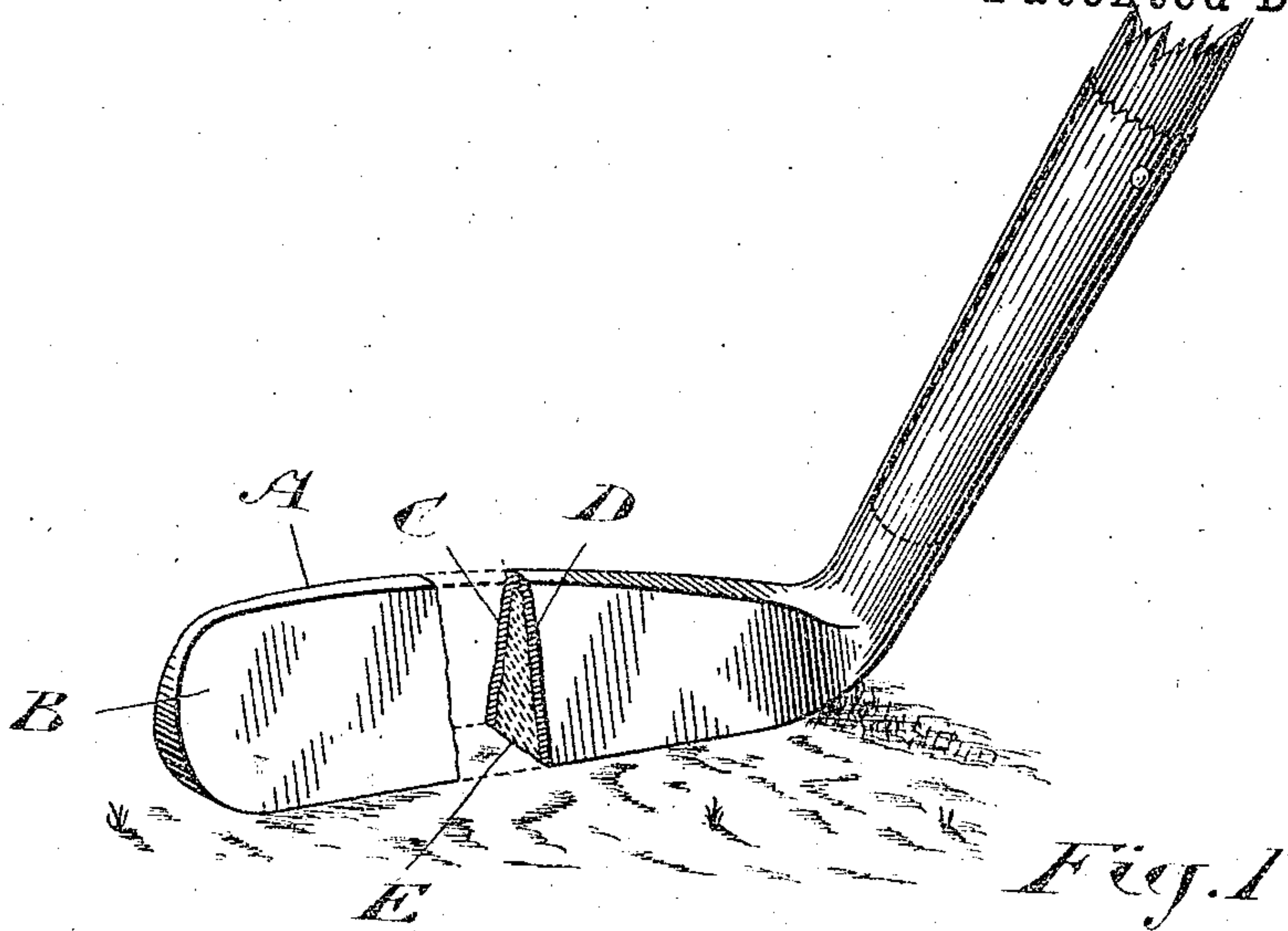


Fig. 2

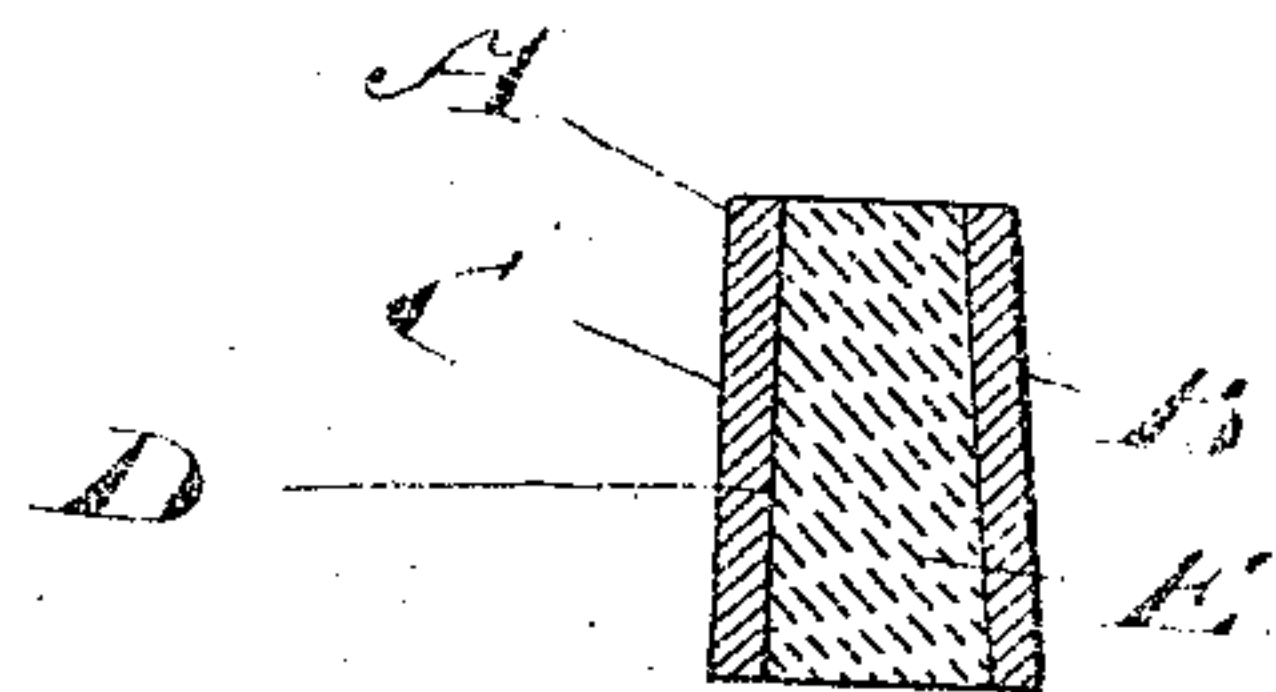


Fig. 3

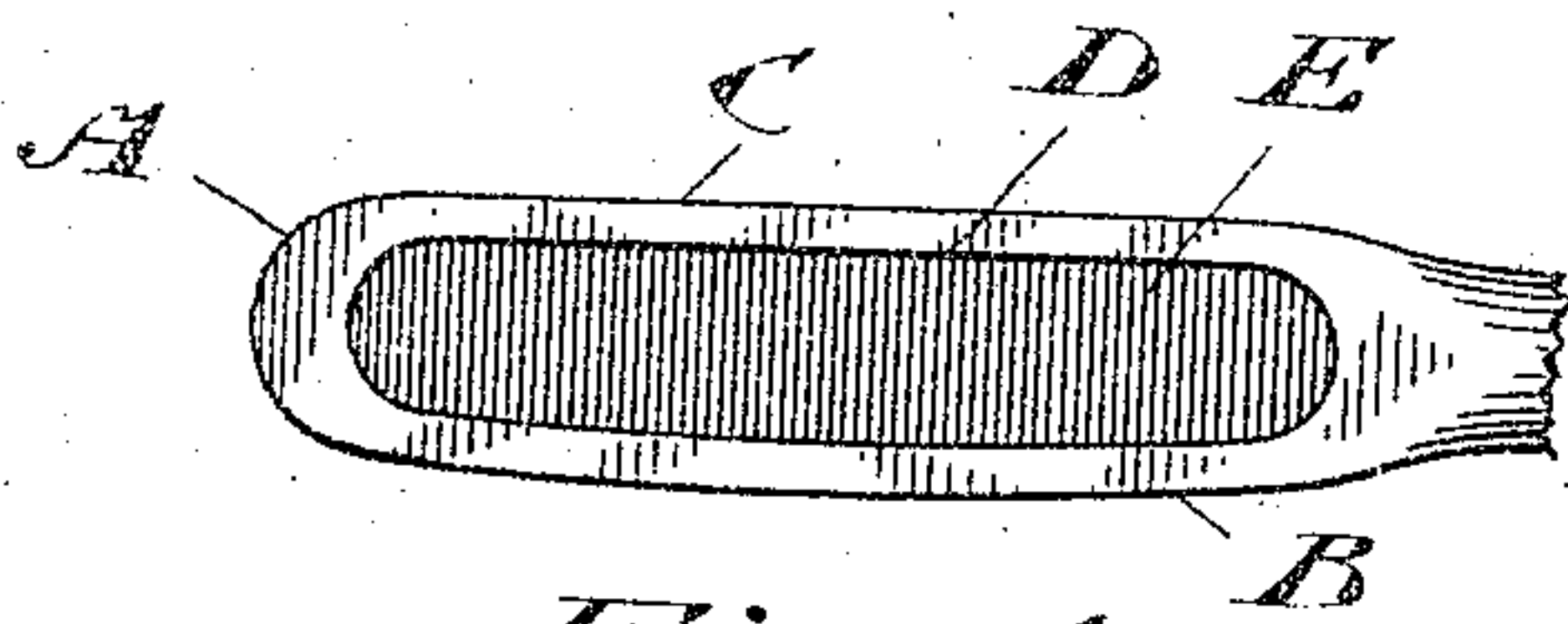


Fig. 4

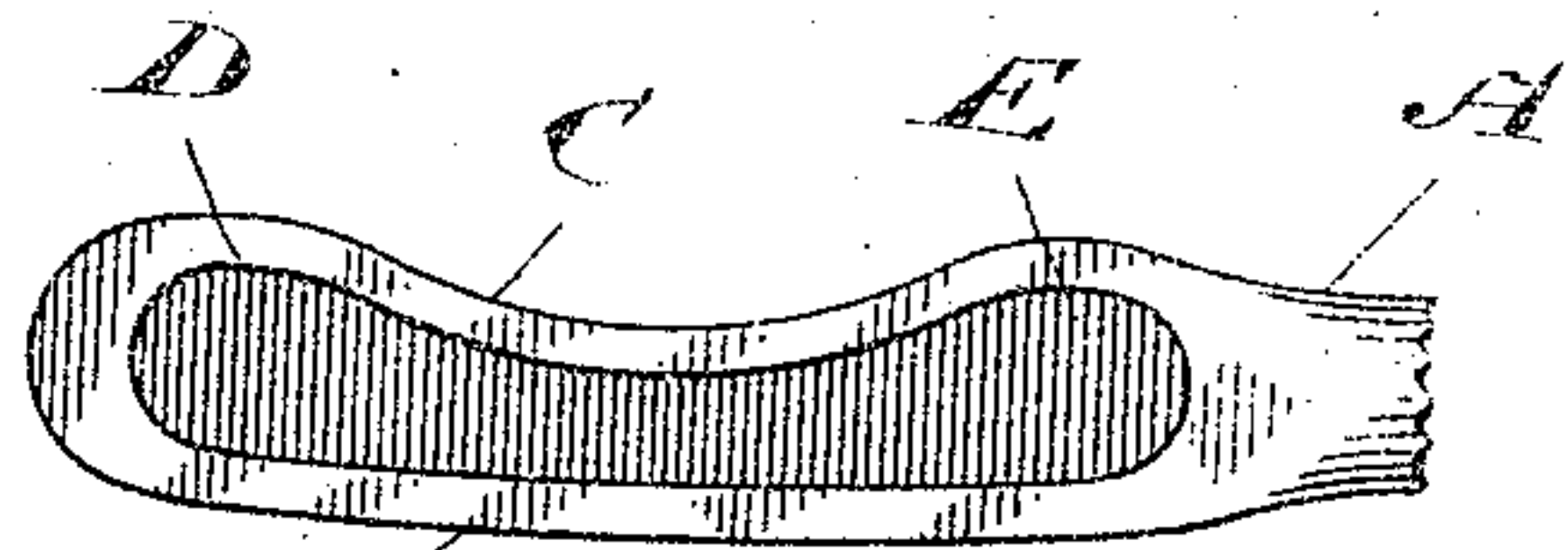


Fig. 5

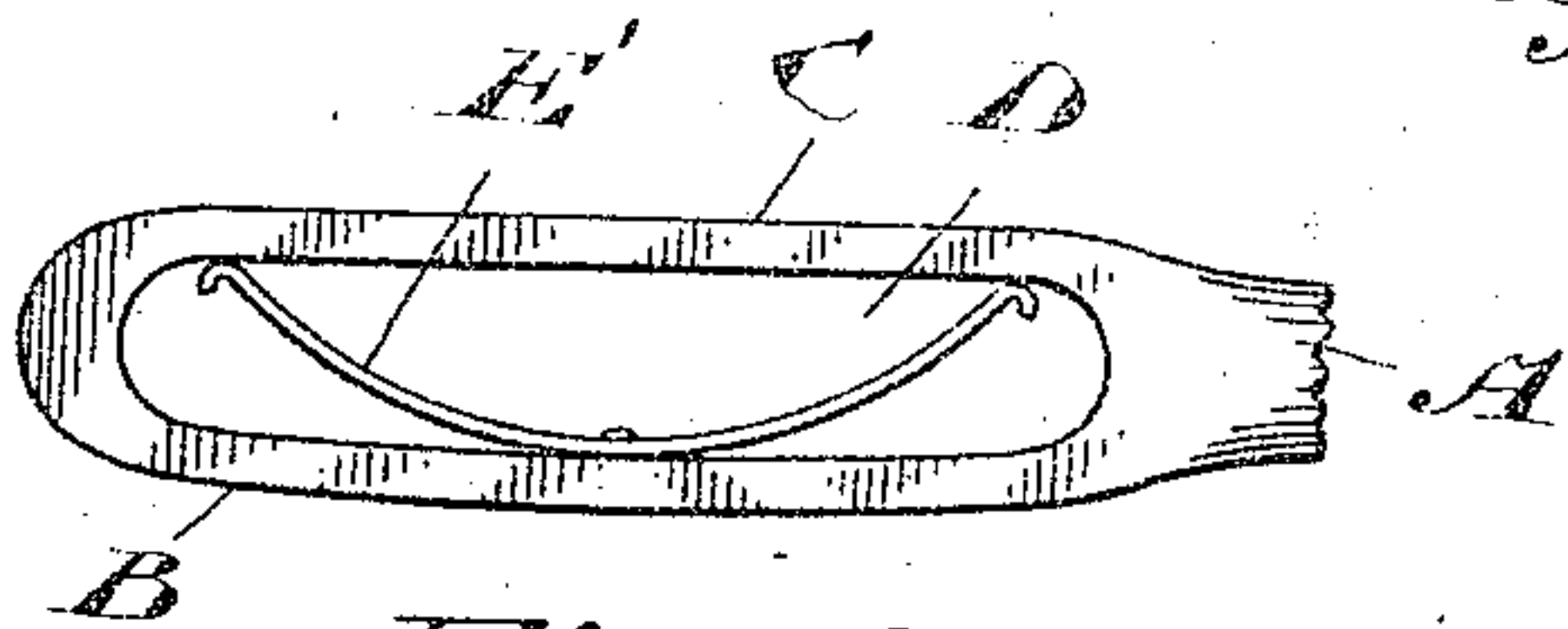


Fig. 6

Witnesses

Fred Clarke  
of New York

Inventor

W. T. Jennings  
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# UNITED STATES PATENT OFFICE.

WILLIAM T. JENNINGS, OF TORONTO, CANADA.

## GOLF-CLUB.

SPECIFICATION forming part of Letters Patent No. 550,976, dated December 10, 1895.

Application filed October 4, 1894. Serial No. 524,893. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM TYNDALE JENNINGS, civil engineer, of the city of Toronto, in the county of York and Province of Ontario, Canada, have invented a certain new and Improved Golf-Club, of which the following is a specification.

The object of my invention is to devise a golf-club superior in driving power to those ordinarily in use; and it consists, essentially, of a club the head of which is constructed preferably of spring-steel, the metal being so shaped as to leave resilient steel walls surrounding a central space, which preferably has a metal spring or a filling of elastic material arranged therein, the whole being constructed in detail substantially as hereinafter more particularly described.

Figure 1 is a perspective view of a head of that form of golf-club known as a "cleek." Fig. 2 is a vertical longitudinal section of a driver. Fig. 3 is a cross-section of the same through line *ab*. Fig. 4 is a plan view of the same. Fig. 5 is a plan view of an alternative form of the same. Fig. 6 is a plan view of the same, showing a metal spring arranged in the center space.

In the drawings like letters of reference indicate corresponding parts in the various figures.

A is the head of a golf-club, composed of walls B and C, connected at the ends and inclosing a space D.

E is a filling, preferably of vulcanized rubber, gutta-percha, or any suitable elastic material.

In the cleek illustrated in Fig. 1 the space D is wedge-shaped, as shown. In the forms illustrated in Figs. 2 to 6 the space is open both at the top and bottom.

In order to prevent the filling from falling out, it is desirable that the metal forming the ends of the space D be bulged, as shown at *a a*, or that it be otherwise suitably shaped to accomplish the purpose. (See Fig. 2.)

In the form shown in Fig. 6 a metal spring E' is substituted for the elastic filling E. This bears at its center against the front wall B and at its ends against the rear wall C. Instead of the flat spring a coil-spring bearing against the centers of the front and rear walls might be used. The metal used for the head

is preferably spring-steel, drop-forged or otherwise made of the desirable shape.

The walls B and C are sufficiently thin to be resilient and to give elastically when the ball is struck. Although both walls are shown of the same thickness, a certain measure of utility might be obtained if the front wall only were sufficiently thin to be resilient. The rear wall C may be curved inwardly, as shown in Fig. 5, in which case a portion of the transverse pressure on the filling E would be converted into a longitudinal strain on the filling in the larger ends of the space.

In all the forms shown by suitably proportioning the steel walls the elastic filling or metal spring might be dispensed with.

Although I show my invention applied to only two forms of club, it will of course be understood that it is equally as applicable to all the various forms of golf-clubs in use, whether of wood or metal.

Although I mention vulcanized rubber as the preferable material for the filling, it being unaffected by ordinary extremes of heat or cold, many other substances—such as vulcanized gutta-percha, sponge rubber, cork, wood, or, in fact, any elastic or semielastic substance—might be used for the same purpose.

By constructing a golf-club as above described I am able, with a club of equal or less weight than those ordinarily in use, to obtain greater driving power with the same or less exertion on the part of the player.

I am aware that it is old to provide a golf-club with one resilient side, as shown in the English Patent No. 3,822 of 1893, and to insert a cushion of elastic material in a frame or backing of metal, as illustrated in the English Patent No. 5,741 of 1891, and hence make no claim to such constructions. I regard my invention as essentially different from either of those above mentioned, inasmuch as a club formed with thin resilient walls on all sides having a space between their lower edges makes a very differently-acting club from one in which a resilient side is secured to a hard backing such as has been heretofore used, even if the wooden backing is made hollow. When the four walls are made resilient and the blow is delivered from one of said walls, a great part of the strain from the



blow is felt by the rear and short end walls. In fact, the rear wall may be said to greatly help the front wall in giving the "rebound." This is evident from the fact that when the 5 blow is delivered the center of the resilient face with which the blow is given is forced slightly inward, thus shortening the distance on the front between the end walls, and as this shortening of the space between the end 10 walls at the front will have to be compensated the rear resilient wall gives sufficiently to accomplish this effect. Of course, as the front and rear walls are of resilient material, this occurs instantaneously and each resili- 15 ent wall as quickly tends to resume its initial position, and it will thus be seen that the resiliency of the rear wall is used as well as that of the front wall and that the rebound is therefore made partly by each resilient 20 wall.

What I claim as my invention is—

1. In a golf club, a head having back and front walls of resilient material, and end walls connecting said resilient back and front walls, whereby the rear resilient wall assists in sus- 25 taining the front resilient wall when a blow is delivered and also in giving a rebound, substantially as described.

2. In a golf club, a head having back and front walls of resilient material, and end walls 30 connecting said resilient back and front walls, whereby the rear resilient wall assists in sustaining the front resilient wall when a blow is delivered and also in giving a rebound, the said club being open at the top and bottom of 35 the walls, substantially as and for the purpose specified.

Toronto, September 29, 1893.

WILLIAM T. JENNINGS.

In presence of—

J. EDW. MAYBEE,  
FRED CLARKE.