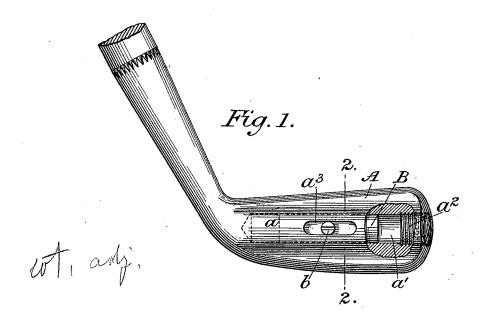
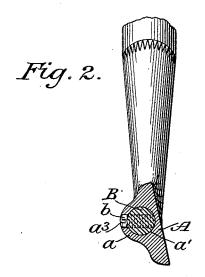
## J. CRAN.

(Application filed Nov. 29, 1899.)

(No Model.)





Attest: A.N.Jesbera. L. R. Moore Inventor: James Cran by Redding, Kiddle Greeley Attys.

## UNITED STATES PATENT OFFICE.

JAMES CRAN, OF CHICOPEE FALLS, MASSACHUSETTS, ASSIGNOR TO THE A. G. SPALDING & BROS., OF JERSEY CITY, NEW JERSEY, CHICAGO, ILLINOIS, AND NEW YORK, N. Y.

## GOLF-CLUB.

SPECIFICATION forming part of Letters Patent No. 645,942, dated March 27, 1900.

Application filed November 29, 1899. Serial No. 738,639. (No model.)

To all whom it may concern:

Be it known that I, James Cran, a subject of the Queen of Great Britain, and a resident of Chicopee Falls, in the county of Hampden, 5 State of Massachusetts, have invented certain new and useful Improvements in Golf-Clubs, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

The object of this invention is to provide a head for a golf-club which can be adjusted in weight or in balance—that is to say, in the disposition of the weight—according to the requirements of different players or of different players.

15 ent conditions of use.

The invention will be more fully described hereinafter with reference to the accompany-

ing drawings, in which-

Figure 1 is a view in side elevation of a golf20 club head which embodies the invention,
partly broken out to show details of construction; and Fig. 2 is a section on the line 2 2 of
Fig. 1

The invention is particularly applicable to 25 "iron" clubs, which are preferably made of soft steel and drop-forged, but may also be made of malleable iron or other metal and formed in any suitable manner. A head A of this general class is shown in the drawings 30 and may be of usual shape, except that it preferably has a wide ridge a running along the back from end to end, or nearly so, in order to give greater thickness from face to back. A chamber a' is formed within the 35 head, as by being bored from the end, the outer end of the cavity or chamber being closed conveniently by a screw-plug  $a^2$ , tapped into it. A weight B is placed within the cavity and may be replaced as required by one 40 greater or smaller, according to the weight which it is desired that the head shall have. In order that the balance of the head may be adjusted, the weight B is made adjustable within the cavity, being held in adjusted position by a set-screw b, the head of which 45 travels in a slot  $a^3$ , cut in the back of the head, the end of the screw bearing against the opposite wall of the cavity or chamber. The weight preferably fits somewhat snugly within the cavity, and if it is desired to change 50 the weight of the head a longer or shorter weight is substituted.

It will readily be seen that it is not only an advantage to be able to change the weight of a given club according to the requirements 55 of the player, but that it is an especial advantage to be able to adjust the balance of the club to suit the player, thus giving to the club in the hands of the player a greater driving power and insuring straighter drives, precenting pulling or slicing of balls. Although the invention is here shown and described as applied to an iron, it will be readily understood that it is equally applicable to any form of golf-club.

I claim as my invention—

The combination with a golf-club head having a cavity therein and a slot through the rear wall of said cavity of a weight placed in said cavity and movable therein, and a set-70 screw traveling in said slot, and passing through the weight to bear against the opposite wall of the cavity, substantially as shown and described.

This specification signed and witnessed this 75 27th day of November, A. D. 1899.

JAMES CRAN.

In presence of— FRANK C. FLINT, HOWARD L. HOLT.