(No Model.) 2 Sheets—Sheet 1.

J. E. McKENNA & A. M. BAKER.

BASE BALL CURVER.

No. 385,816. Patented July 10, 1888.

Fig. 1.

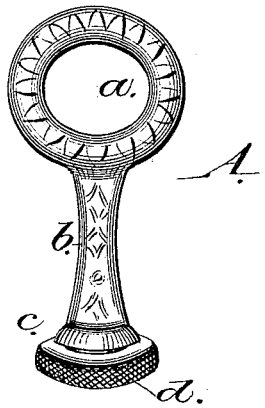
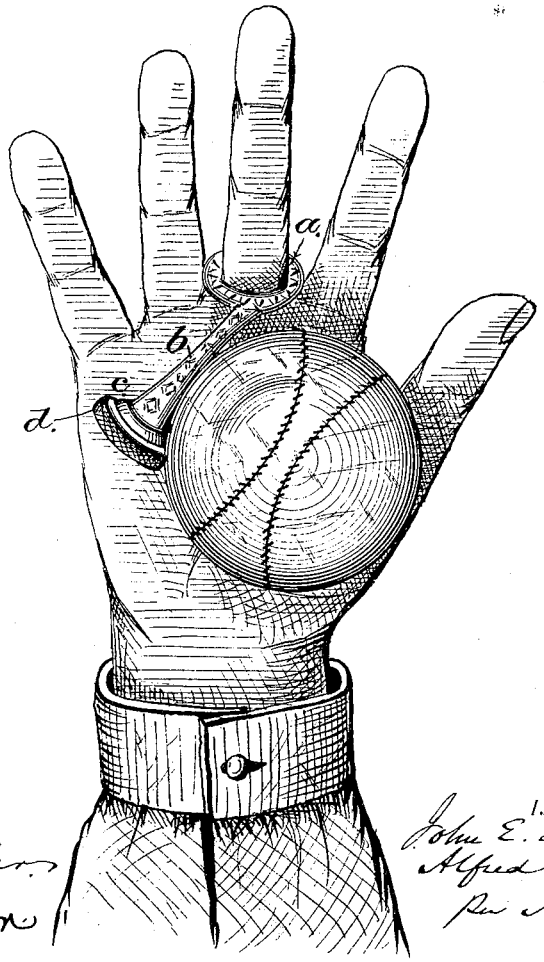


Fig. 2.



WITNESSES

T. W. Fowler.

W. H. Patterson

INVENTOR.

John E. McKenna.

Alfred M. Baker.

Per A. H. Evans & Co

Attorneys,

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

J. E. McKENNA & A. M. BAKER.

BASE BALL CURVER.

No. 385,816. Patented July 10, 1888.

Fig. 3.

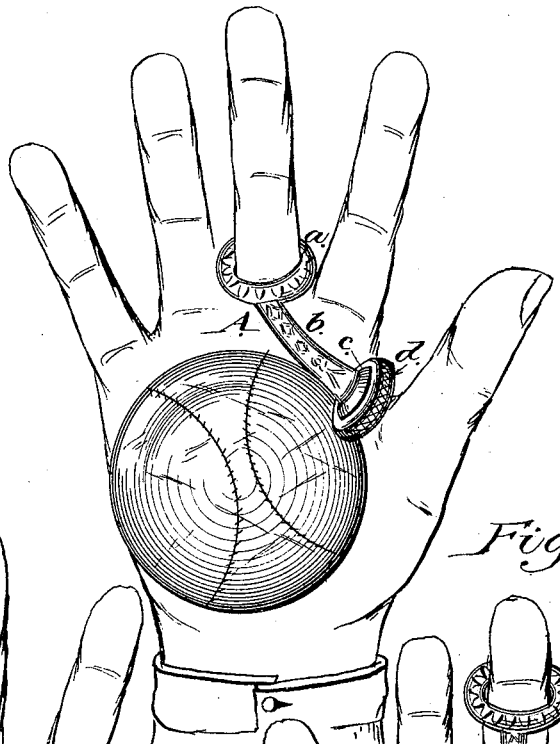


Fig. 4.

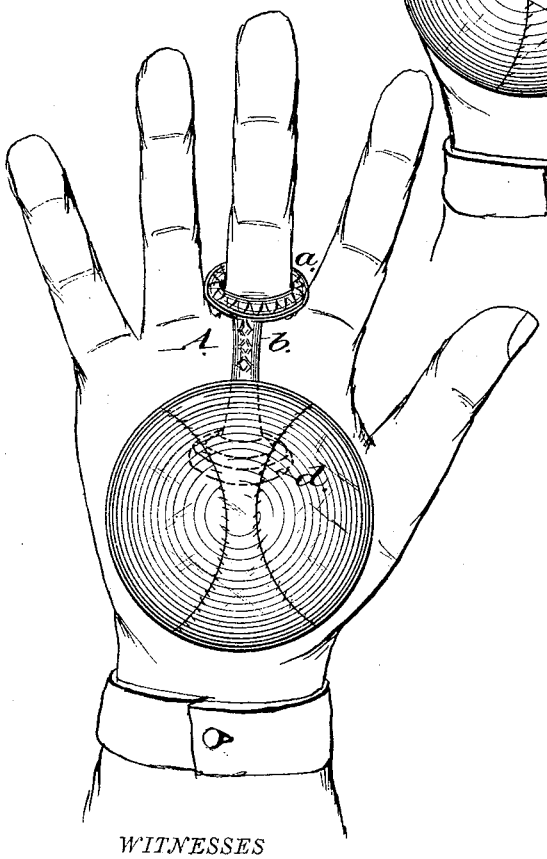
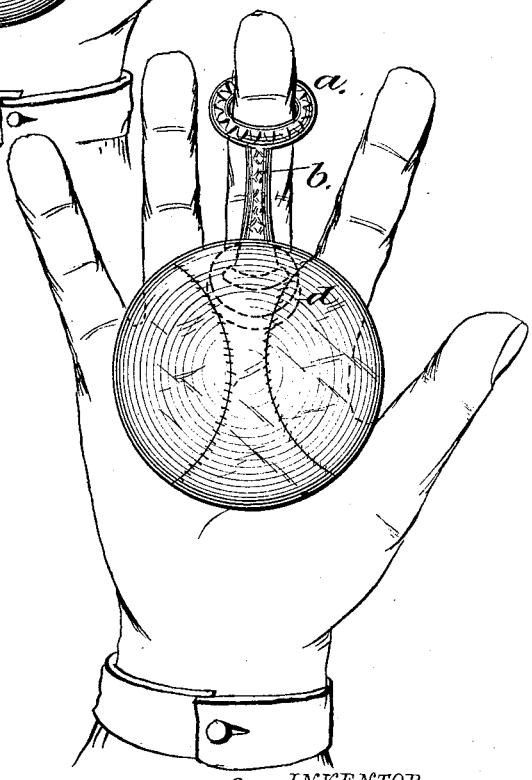


Fig. 5.



WITNESSES

P. V. Fowler.

W. H. Patterson.

INVENTOR.

John E. McKenna.

Alfred M. Baker.

by A. H. Evans & Co

Attorneys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN E. McKENNA AND ALFRED M. BAKER, OF ST. LOUIS, MISSOURI.

BASE-BALL CURVER.

SPECIFICATION forming part of Letters Patent No. 385,816, dated July 10, 1888.

Application filed January 9, 1888. Serial No. 260,201. (No model.)

To all whom it may concern:

Be it known that we, JOHN E. McKENNA and ALFRED M. BAKER, citizens of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Base-Ball Curvers, of which the following is a full and clear description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a perspective view of our ball-curver. Fig. 2 illustrates the position of the curver when the ball is to be delivered with an in-curve. Fig. 3 illustrates the position of the curver for an out-curve. Fig. 4 illustrates the position of the curver when an up-shoot is to be delivered. Fig. 5 shows the location of the curver for a down-shoot.

Our invention relates to certain devices used by ball-players for the purpose of imparting to the ball an in-curve, out-curve, up-shoot, or down-shoot; and our invention consists in a flexible curver adapted to be held in the palm of the hand and to bear against the ball in such a manner as to impart to said ball as it leaves the hand any of the curves above noted.

The object of this invention is to provide ball-pitchers with a simple device readily applied to the hand and of such a nature that the player may, by changing the position of the device, cause the ball as it leaves his hand to describe either an in-curve, out-curve, up-shoot, or down-shoot, as desired.

Referring to the drawings, A represents our ball-curver constructed of flexible material—such as rubber—and provided at one end with a ring or loop, *a*, through which the second finger is inserted, whereby the device is retained in position in the hand. The body portion *b* of the device connects the ring or loop *a* with the opposite or inner end, *c*, said inner end being provided with a flange or disk, *d*, having its edges or surface roughened by diagonal or crossed lines or other means, whereby the leverage upon the ball is greatly increased.

To better illustrate the operation of our curver, we will now refer to Fig. 2, where the flanged inner end of the curver is shown as bearing firmly against the ball upon its left side. This figure illustrates the position of the device with relation to the ball which the player is about to throw in the usual manner. It will thus be seen that as said ball leaves the hand of the player it will describe an in curve; or, in other words, the ball will move in a curved line to the left of the batsman. In this figure it will be observed the ring or loop is pressed down to a point near the base of the finger and the ball held close against the body and flanged end of the curver.

In Fig. 3 the position of the curver and the ball is reversed, the former in this instance pressing against the latter on its right side, so that as the ball is delivered the flanged portion *d* imparts that twist and motion which is necessary to cause the ball as it leaves the pitcher's hand to move in a curved line the reverse of that described for Fig. 2. In this case, therefore, the ball moves in a curved line toward the right of the batsman, and thereby makes what is known as the "out-curve."

For the up-shoot the ball and curver are placed in the positions shown in Fig. 4, and for the down-shoot they assume the positions illustrated in Fig. 5. In this latter position the ring or loop *a* of the device is placed near the end of the second finger, and the flange *c* bent back by the ball, as shown in said Fig. 5.

From the foregoing it will be seen that all the usual curves may be given the ball as it leaves the pitcher's hand. At the same time the player has complete control of the ball, and is enabled to grasp it with that firmness which is essential to accurate delivery.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A base-ball curver of flexible material having one end flanged and adapted to press upon the ball, and having its opposite end provided with means for attachment to the hand of the player.

2. The curver A, having at one end the

loop or ring by which it may be attached to the finger, and at its opposite end a flange or disk, said loop or ring and flange being united by a flexible body-piece, substantially as described.

3. As an article of manufacture, a ball-curver formed of rubber having at one end a ring or loop by which it may be attached to the finger, and at the opposite end a flange or disk having a serrated or roughened edge or surface, substantially as described.

JOHN E. McKENNA.
ALFRED M. BAKER.

Witnesses:
H. J. BURGDORF,
W. H. PATTERSON.