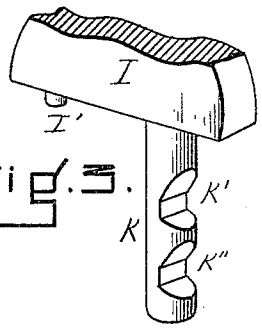
(No Model.)

J. F. ZACHARY.

PUZZLE.

No. 438,217. Patented Oct. 14, 1890.

Fig. 3.



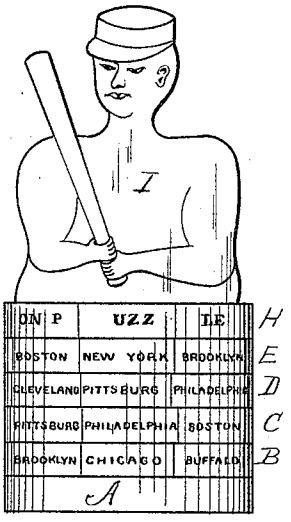


Fig. 1.

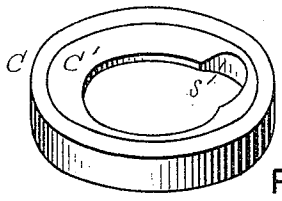


Fig. 4.

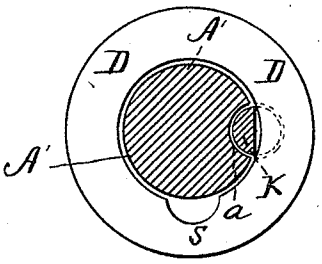


Fig. 6.

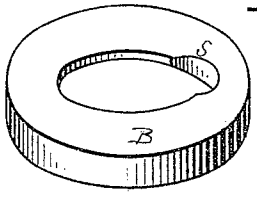


Fig. 5.

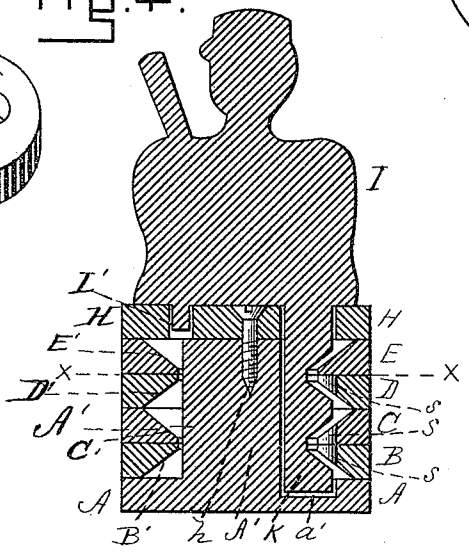


Fig. 2.

WITNESSES.

J. H. Hartnett.

B. W. Williams

INVENTOR

James F. Zachary,

By his Atty

Henry W. Williams

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES F. ZACHARY, OF CHELSEA, ASSIGNOR OF ONE-HALF TO CHARLES A. EASTMAN, OF CAMBRIDGE, AND JAMES Y. TAYLOR, OF BOSTON, MASSACHUSETTS.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 438,217, dated October 14, 1890.

Application filed August 15, 1890. Serial No. 362,071. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. ZACHARY, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Toy Puzzle Apparatus, of which the following is a specification.

This invention is a base-ball toy or puzzle, the nature of which is below described, the puzzle being to discover the combination by which a series of rings having the names of base-ball clubs on their peripheries may be so arranged as to release the figure of a ball-player supported therein.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a front view of my device. Fig. 2 is a vertical section of the same, arranged so that one of the rings does not register, and hence the figure of the player is locked in position. Fig. 3 is a perspective view of a portion of the figure of the player and its shank removed. Figs. 4 and 5 are perspective views of detached rings. Fig. 6 is a horizontal section on line *x*, Fig. 2.

A is a base-plate supporting a central integral post A′, provided on one side with a vertical groove *a*, at the lower end of which is a coincident depression *a′* in the upper side of the base-plate A.

B, C, D, and E are four rings, each of which is provided with an internal notch *s*. The lowest ring B is beveled on its under side at B′. The next ring C is beveled on its upper side at C′. The next ring D is beveled on its under side at D′, and the upper ring E is beveled on its upper side at E′. On the top ring E is laid a cap H, which is secured by the screw *h* to the top of the post A′.

I represents the figure of a ball-player, from which a shank K extends downward. A dowel I′ prevents the figure from turning in its position. This shank K, which is round in cross-section, extends down through the cap H and in the groove *a* in the post A′, its lower end resting in the depression *a′* in the base. The diameter of the shank is of size to fill the groove *a* and a notch *s;* but it is provided with two doubly-beveled notches K′ K″. It will readily be seen that if the notches *s* in the rings all register—*i. e.*, are in a vertical line—the shank K can be withdrawn and replaced at will; but should any ring be moved so that its notch would not register, the inner or flanged portion of such ring would extend into one of the notches K′ K″ of the shank and prevent it from being withdrawn. The puzzle is to release the player I. With the device in the position shown in Fig. 2 this cannot be done, as the notch in the ring E is out of register, and hence the inner edge of said ring lies in the notch K′. In this figure all the other notches register. By lettering the peripheries of the rings with names of different ball-clubs a combination may be arranged, so that the player can be released only by so arranging the rings that a certain arrangement of clubs in a vertical line will cause the notches to register and release the player. In this instance the combination is Chicago, Boston, New York, Cleveland.

The general principle of this device is not new in itself considered, it having been applied to padlocks, (see Letters Patent No. 174,842,) and hence I do not claim the broad principle of the construction; but in detail and as constructed for a toy or base-ball puzzle it is believed to be new.

A special improvement consists in the doubly-beveled notches K′ K″ in the shank, in connection with the beveled inner edges of the rings, which are placed in pairs or back to back, so that one notch in the shank accommodates two rings, locking two at a time when their notches are out of register.

Of course the printed matter on the rings may be varied at will.

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

The herein-described toy puzzle apparatus, consisting, essentially, of the figure of the ball-player I, provided with the shank K, said shank being provided with the doubly-beveled notches K′ K″, the base A, provided with the post A′, grooved at *a*, the rings B C D E, alternately reversely beveled at B′ C′ D′ E′ and provided with the notches *s*, and the cap H, all arranged and constructed as described.

JAMES F. ZACHARY.

Witnesses:

HENRY W. WILLIAMS,

J. M. HARTNETT.