

(No Model.)

R. REACH.
GLOVE.

No. 450,717.

Patented Apr. 21, 1891.

Fig. 1.

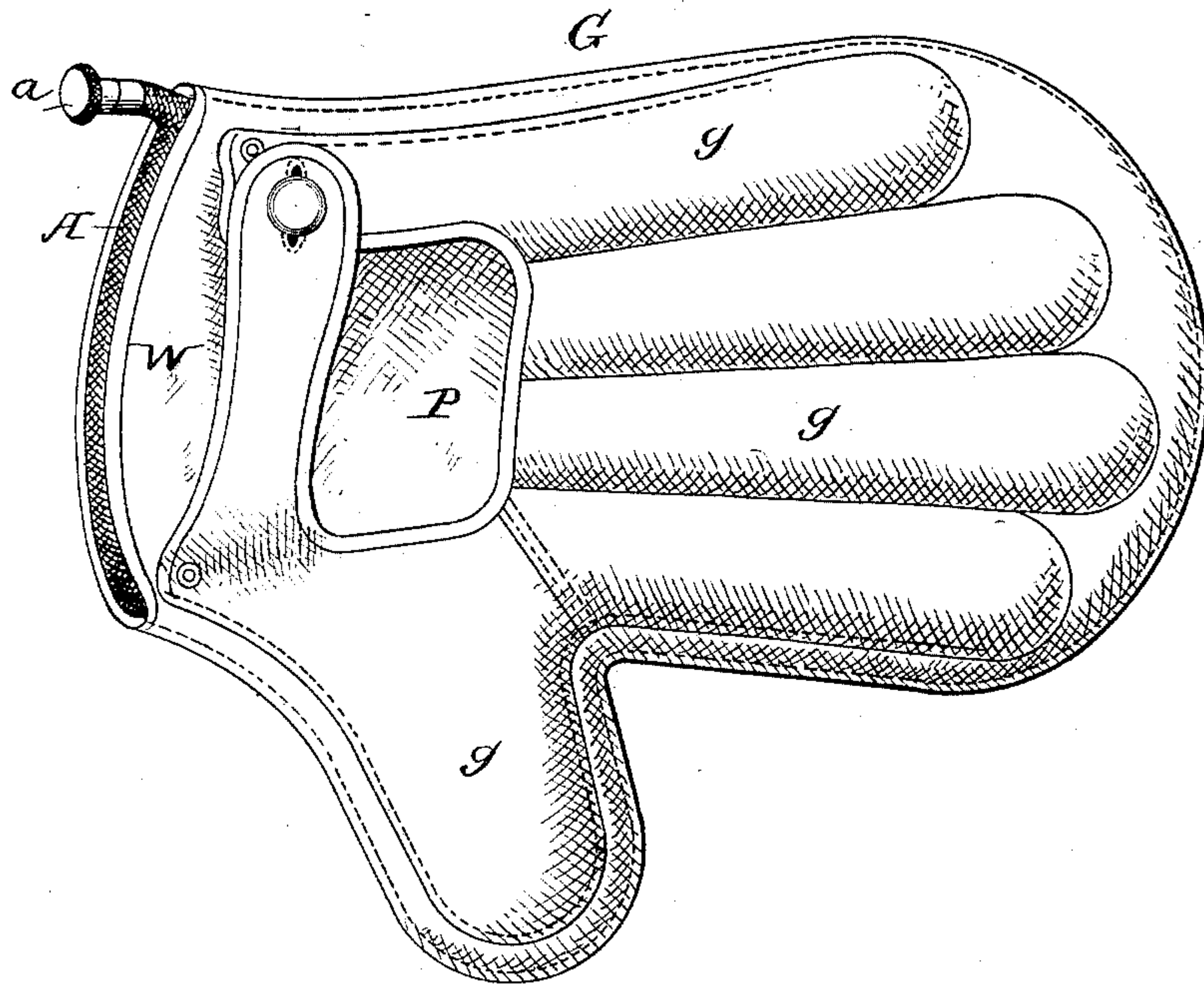


Fig. 2.

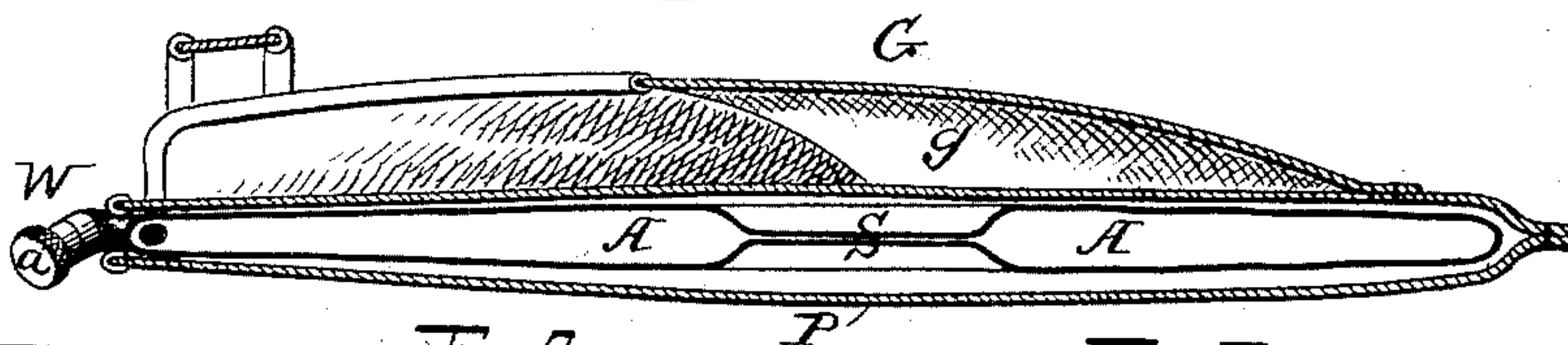


Fig. 3.

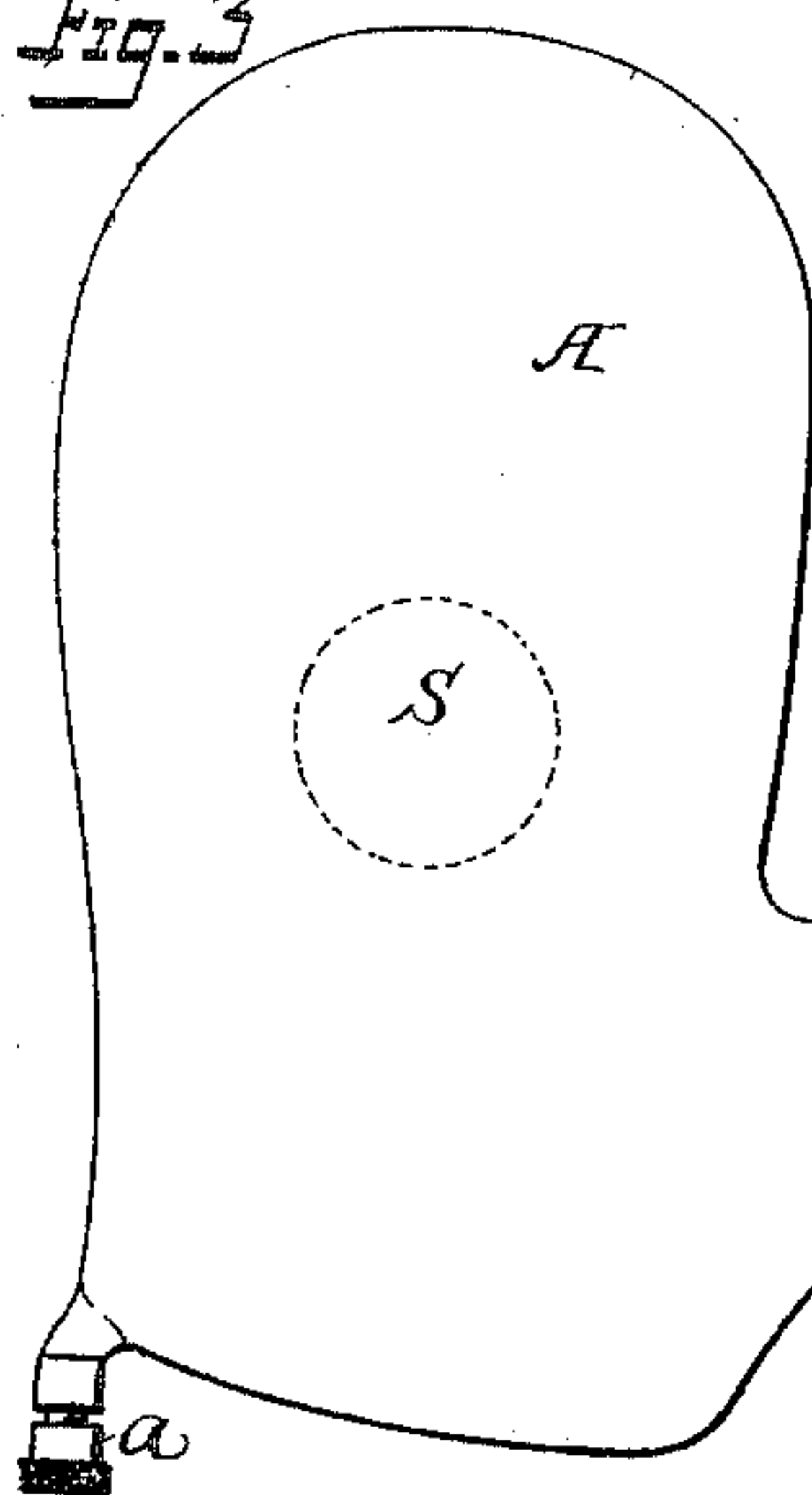


Fig. 4.

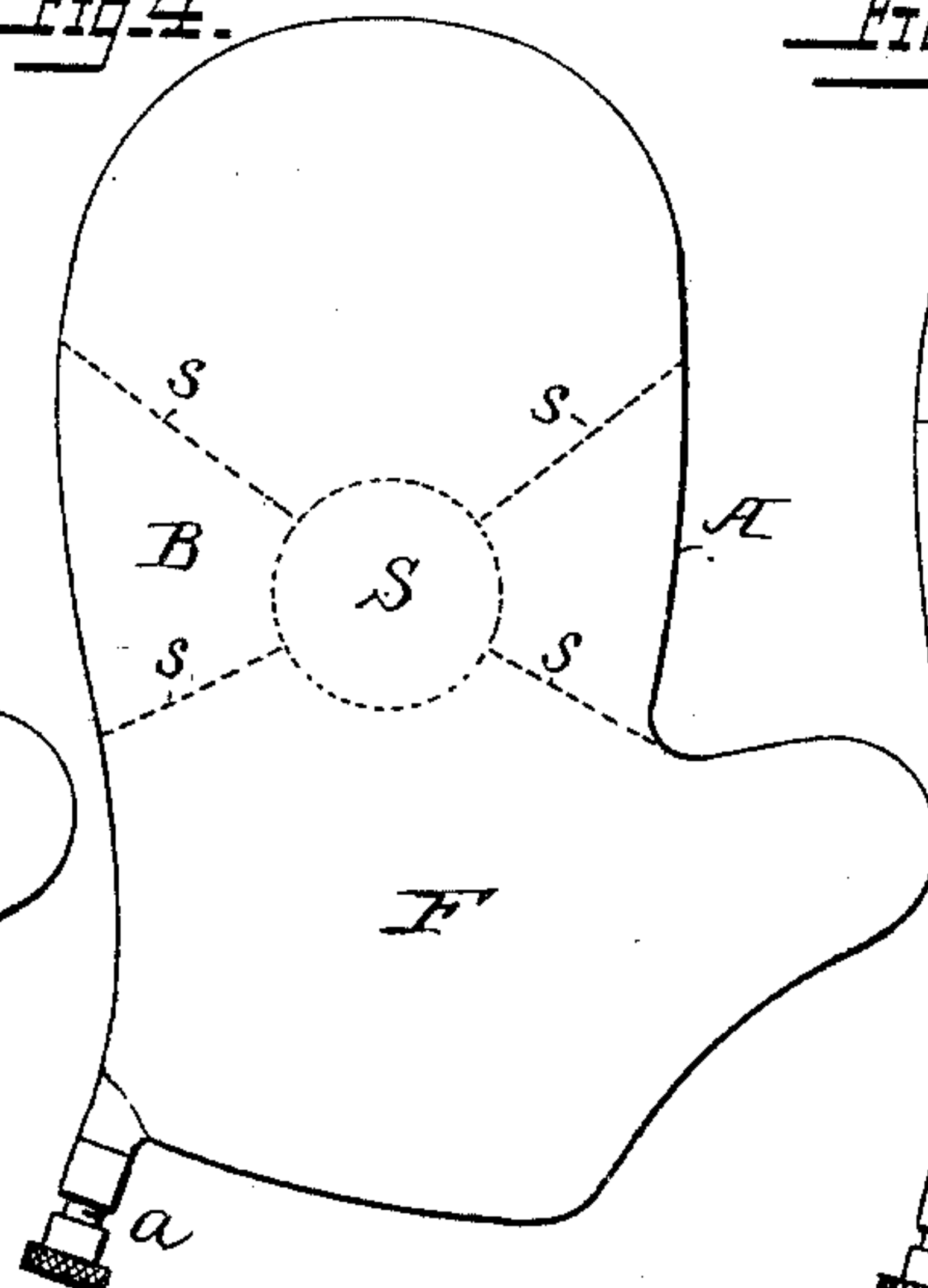
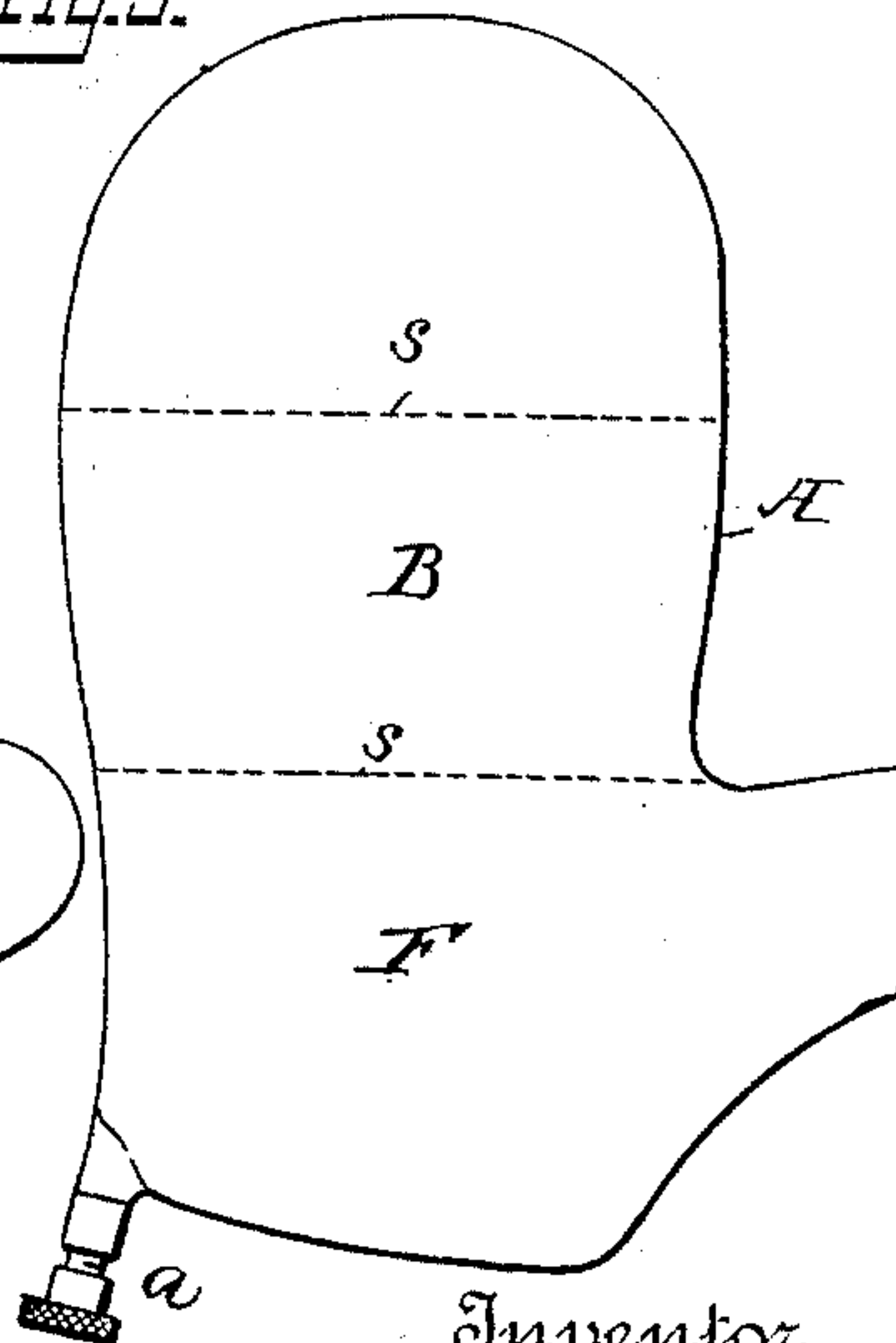


Fig. 5.



Witnesses

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ROBERT REACH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
AMERICAN PATENTS COMPANY, OF SAME PLACE.

GLOVE.

SPECIFICATION forming part of Letters Patent No. 450,717, dated April 21, 1891.

Application filed November 15, 1889. Serial No. 330,436. (No model.)

To all whom it may concern:

Be it known that I, ROBERT REACH, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Gloves, of which the following is a specification.

This invention relates to gloves of that class which are used more particularly by base-ball players and other ball-players where a ball or other missile is to be caught in the hands of the wearer.

The invention relates to improvements in such gloves; and it consists in providing the glove on the inner or palm side with a rubber cushion adapted to be inflated with air in any well-known manner in connection with the hereinafter-described arrangement and construction of the several parts of such air-cushion, whereby the same may be successfully used for the purpose desired. Base-ball gloves are ordinarily lined or padded with a thick padding of cloth, hair, or other similar material, which very much interferes with their flexibility and renders them awkward in use, so that the wearer does not receive and catch the ball as well as he would wish. If the thickness of the padding is reduced, then there is not sufficient of a bumper action, and the player is apt to be wounded or his hands bruised.

The use of an inflated air-cushion for various purposes is well known in the arts; but the peculiar necessities of the present use demand that such air-cushion shall have little or no elasticity, which would tend to repel the ball from the hand of the wearer and cause him to "muff" it. To overcome this elasticity and yet to provide a glove which shall be of sufficient thickness, softness, and flexibility is the object of the present invention.

In the accompanying drawings, Figure 1 is a plan view of the glove complete, the palm being shown as uppermost. Fig. 2 is a longitudinal section of the glove, showing the air-cushion therein and in an inflated condition; and Figs. 3, 4, and 5 are plan views of several forms of air-cushions removed from the glove, the dotted lines representing partitions within such air-cushions.

G represents a glove made, as usual, of cloth, leather, kid, chamois, or any other desired material, and provided with the ordinary stalls *g* for the fingers and thumb. This glove is provided, preferably, with two thicknesses of material over its palm *P*, which thicknesses are sewed or stitched together around their edges, except across the wrist *W*, whereby the palm of the glove is practically a pocket, within which an air-cushion may be removably inserted, as shown in Figs. 1 and 2. If desired, the said air-cushion may be sewed into or formed integral with the body of the glove, as will be clearly understood by those skilled in the art. The said air-cushion *A* is constructed, preferably, of rubber cloth and provided at any suitable point with an inflating tube or device *I*, having a valve *a* for preventing the escape of the air, as is usual in air-cushions. I prefer, however, to locate this device in the position shown in the drawings—viz., at the outer side or corner of the inner end of the cushion—in order that when in position it will stand at the outer side of the wearer's wrist, which point will the least interfere with the successful operation of the glove; but I have found that an ordinary air-cushion, when fully inflated, as usual, arranged at the palm of a base-ball glove, will generally render the same so elastic that when the ball is caught therein, especially if it be coming with considerable force, it will tend to rebound therefrom before the wearer can close his fingers around it. In order to overcome this objectionable feature of the convenient and inexpensive air-cushion, I take care to only partially fill the cushion with air, so that when a ball strikes, the air, instead of being at once compressed and offering an elastic resistance, will be forced to one part of the cushion, the portion struck sinking and yielding with a buffer action, which deadens the shock without causing any rebound.

In Fig. 3 I have shown an air-cushion provided near its center with a section *S*, preferably circular, or approximately so, where the two thicknesses of the cushion are sewed together or otherwise connected, so that at this point, which stands normally over the center of the palm when the cushion is in place within the glove proper, there will be a dead-

space with practically no cushion or padding, although the impetus of the ball will be to a considerable extent overcome by the annular surrounding inflated portion.

- 5 In Figs. 4 and 5 the cushion is shown as provided with internal partitions *s*, (dotted lines,) of fabric or of perforated material, the perforations or meshes being of such size that the flow of air from one portion or chamber, as F, into another, as B, will be to an extent
10 restricted. The result of such restricted flow of air will be to present a gradually-yielding buffer to the ball without any objectionable elasticity.
- 15 I am aware that heretofore gloves with cushioned palms have been used, and also that air-cushions have been used in positions where softness and great elasticity has been desired, and these features I do not claim broadly.
- 20 The cushions heretofore used in the palms of gloves have been made of hair or similar material, and they have been found to be too elastic, thereby causing the ball to rebound so quickly as to render the catching of it
25 quite difficult. I have found that by using an air-cushion and by only partially inflating it I can produce a cushion which is almost inelastic when the ball first comes into contact with it, the air being forced to other parts
30 of the cushion, so that the ball is permitted

to sink into the cushion, forming a matrix or cavity for itself and allowing the wearer of the glove plenty of time to secure it with his other hand. I so regulate the amount of air within the cushion that, while it permits of
35 the primary inelastic action above described, there will yet be always sufficient air between the ball and the wearer's hand to afford a gradually-increasing resistance to the impact of the ball and to protect the hand.

Without limiting myself to the precise construction shown, I claim—

1. As a new article of manufacture, a base-ball-catcher's glove provided in its palm with a pocket containing a removable and inflatable air-cushion or pad in compartments, said compartments having restricted but free passages between them, substantially as shown and described.

2. As a new article of manufacture, a glove
50 having an air-cushion at the palm, said cushion surrounding a central, dead, or unpadded portion, substantially as described.

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

ROBERT REACH.

Witnesses:

GEO. W. REED,
EMANUEL HOFF.