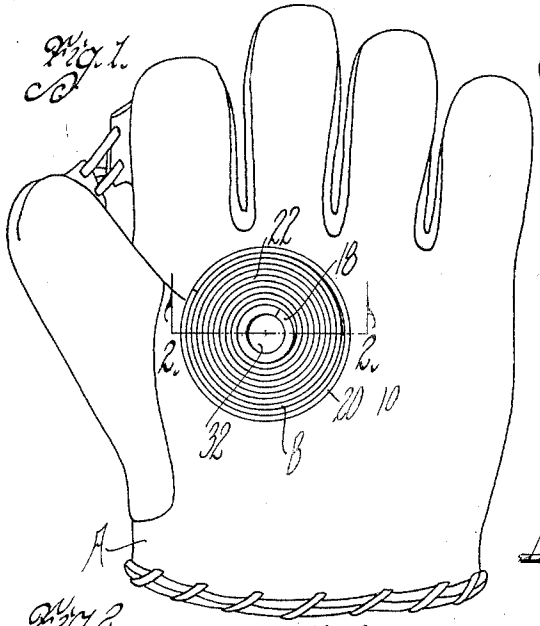
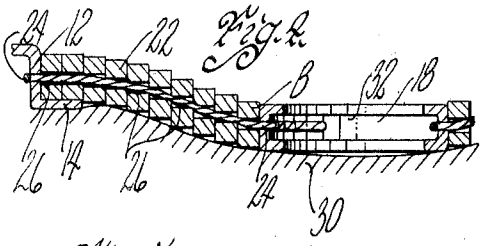
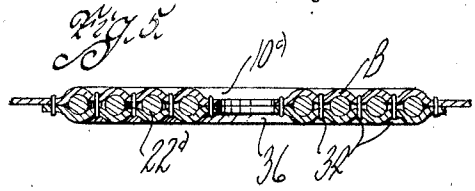
April 5, 1932. K. K. KIRKHAM 1,852,416

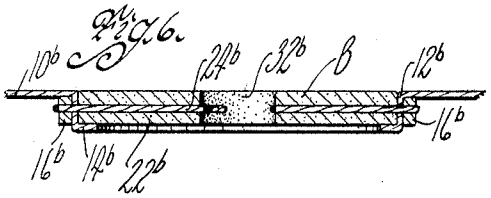
ATHLETIC GLOVE OR MITT CONSTRUCTION

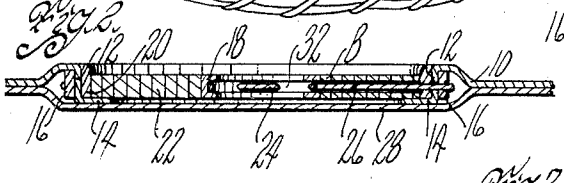
Filed Oct. 5, 1931

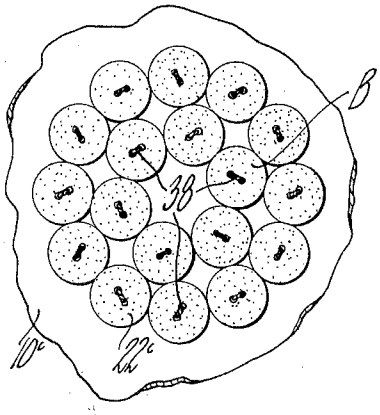


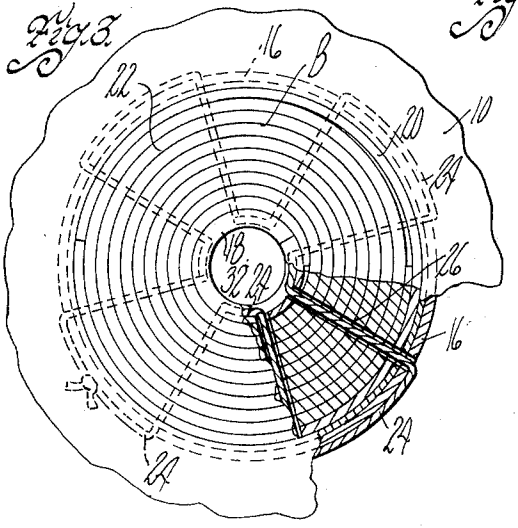


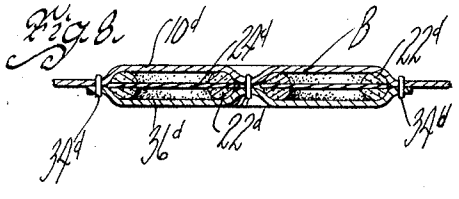












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Patented Apr. 5, 1932

1,852,416

UNITED STATES PATENT OFFICE

KENZIE K. KIRKHAM, OF AMES, IOWA

ATHLETIC GLOVE OR MITT CONSTRUCTION

Application filed October 5, 1931. Serial No. 567,101.

An object of my invention is to provide an athletic glove or mitt construction having a face for reducing force of impact, which is simple, durable and comparatively inexpensive to manufacture.

A further object is to provide an efficient impact reducing means for the face of an athletic glove or mitt, such as a base-ball glove, which at all times reduces the force of impact without becoming distorted and yet has a maximum of flexibility to conform to the hand of the wearer so as not to undesirably deflect a ball when striking the impact reducing means.

An impact reducing means of this character is particularly desirable over and above present day padded gloves which require two or three months of daily use and practice before a professional player can rely on their efficiency for scheduled competition, my glove requiring no breaking-in and being entirely reliable and one-hundred per cent efficient the first time it is used after being manufactured.

More particularly, it is my object to provide a preferred form of impact reducing means of annularly arranged sectional construction and made of flexible strip material with a means to loosely retain the sections thereof in approximate relation to each other whereby they retain their shape, but nevertheless have sufficient flexibility to instantly conform to the hand of the wearer without any restriction whatever.

A further object is to provide an impact reducing means of this character which forms part of the face of a glove or mitt and is readily built thereinto without undesirably affecting the remaining construction or padding of the glove.

With these and other objects in view my invention consists in the construction, arrangement and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

Figure 1 is a front view of an athletic glove, such as a base-ball glove, showing my impact reducing construction thereon.

Figure 2 is an enlarged sectional view on the line 2—2 of Figure 1.

Figure 3 is an enlarged plan view of Figure 1 showing parts broken away and other parts in section to illustrate the construction of my invention.

Figure 4 is a sectional view somewhat similar to Figure 2 showing the ready flexibility of the impact reducing means to conform to the hand of the wearer.

Figures 5 and 6 are sectional views similar to Figure 2 showing modified forms of construction.

Figure 7 is a plan view of another modified form, while Figure 8 shows a sectional view similar to Figures 5 and 6 of still another modified form of construction.

On the accompanying drawings, I have used the reference character A to indicate a base-ball glove. The reference character B indicates my improved impact reducing means which is built into the face 10 of the glove A. Although I have shown my invention as applied to a base-ball glove, it can also be applied to a base-ball mitt or other types of athletic gloves and mitts as for instance hand ball gloves.

At present, the face of a base-ball glove is usually padded so as to prevent stinging the hand of the wearer when receiving a fast ball from a bat or from a player throwing the ball with considerable force. A good padding has to be worked in by two or three months of daily use in practice before it is formed just so that when the player receives a ball, he knows that he will be able to hold it and it will not be unexpectedly deflected and also will not sting his hand, causing him to flinch and possibly drop the ball. My impact reducing member B makes it possible to receive the swiftest ball with the same confidence and ease as a slow one. This is accomplished by reason of the fact that the impact reducing member B is located in the center of the face 10 and is so constructed for maximum flexibility consistent with firmness that all parts of the member aid in reducing the force of impact of the ball.

The impact reduction is somewhat similar to the effect of a net on a ball when the ball is driven into the net. No matter how great the force of impact, it is instantly reduced and the ball will fall directly downward.

The force of the ball is instantly reduced to almost zero, while in the gloves now in use, increase of padding is the only means to reduce the force of impact. This makes the glove more bunglesome and stiff and therefore inefficient. Since breaking-in is not required, the player does not have the trouble of breaking in a padded glove and then when the padding is to his liking, it will soon become thin so as to cause flinching. Such a glove must then be re-padded or the padding re-adjusted and this is all eliminated with the impact reducing construction I have provided.

With the foregoing advantages in mind, I will now describe the face construction embodying my invention. In Figures 1, 2, 3 and 4, I have shown a downturned flange 12 and an inturned flange 14 on the edge of the face 10, which bound an opening formed therein and into which the impact reducing member B is set. The member B consists of terminal rings 16 and 18 between which the flange 12, an outer ring 20 and a spirally wound member 22 are interposed. The members 16, 18, 20 and 22 are preferably formed of leather, raw hide or other flexible strip material, such as rubber or the like.

The members 16, 18, 20 and 22 are loosely retained in approximate relation to each other by a cord or thread 24 threaded through openings 26 in the members, as shown in Figures 2, 3 and 4. The cords 24 also extend through the flange 12 to retain the member B in assembled position relative to the face 10. An inner lining 28 may be provided if desired.

The openings 26 are preferably slightly larger than the cord 24 to allow free flexibility of the members relative to each other, as shown in Figure 4, to conform to the hand 30 of the wearer. The cord 24 also contributes to flexibility since it in itself is flexible. In Figure 4, the members 16 and 20 are omitted and so is the lining 28, since these are not absolutely essential to workability of the device.

Although I have shown the device in Figures 1, 2, 3 and 4 as being of flexible strip material and as annularly and partly spirally arranged, none of these considerations are requisite. For instance, instead of a spiral arrangement, a plurality of concentric rings may be provided and instead of being annularly arranged, the sections of the device may be arranged in straight lines side by side to fill a rectangular opening and other variations may be made without departing from the real spirit of the invention.

Also instead of the impact reducing member B being confined to the center of the face 10, it can be used on other parts of the face such as the fingers and in fact, can be used on faces other than on gloves, such as for athletic protectors to reduce the force of impact of a ball striking the body of the wearer where such protector is used.

I have found that it is unnecessary to provide a center for the impact reducing member B, but an opening 32 can be left therein without decreasing the efficiency of the device. This allows more convenience for assembly of the particular type of device shown in Figure 3, although the opening 32 can be plugged or eliminated in some other manner if desired. It will be noted that the ring 18 has inwardly extending flanges. This is preferable in order to protect the stitches of the cord 24 whereby they project into the opening 32.

In Figure 5, I have shown a modified construction in which the face 10*a* has a plurality of flexible concentric impact reducing rings 22*a*. Instead of being secured in position as heretofore disclosed, they are secured by stitches 34 extending through the face 10*a* between the rings 22*a* and through an inner face 36. In Figure 6, I have shown a face 10*b* with a single piece washer 22*b* secured in position by cords 24*b*. The member 22*b* may be of rubber or similar flexible composition. Other parts corresponding to Figure 2 are indicated at 12*b*, 14*b*, 16*b* and 32*b*.

In Figure 7, I have shown the face 10*c* covered by a plurality of disks 22*c* made of rubber or leather or similar flexible material and providing an impact reducing member of sectional character. The members 22*c* may be formed like ordinary buttons and sewed by threads 38 to the face 10*c*. They may be of any shape desired, but regardless of shape, they present a very flexible face for reducing force of impact and being of sectional character, facilitate flexion thereof.

In Figure 8, I have shown a face 10*d* and an inner face 36*d* with a pair of rings 22*d* secured therebetween by stitches 34*d*. The cords 24*d* may then be utilized for connecting the rings 22*d* together. The face 10*d* between the rings 22*d* stretches across the rings something in the manner of a drum head to serve as a resilient and flexible impact reducing face.

It will be obvious that my construction can be either inset in the face of a glove or the like as illustrated or be entirely arranged under a flexible face or on top of the face.

This change and others may be made in the construction and arrangement of the parts of my device without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of

mechanical equivalents, which may be reasonably included within their scope.

I claim as my invention:

1. In a glove or mitt construction, a face having impact reducing means including an annularly arranged sectional member of flexible strip material and means to loosely retain the sections thereof in approximate relation to each other.

2. In a glove or mitt construction, a face having impact reducing means including a sectional member of flexible strip material and cords through the sections thereof to retain said sections in approximate relation to each other.

3. In a glove or mitt construction, a face having impact reducing means including an annularly arranged sectional member and means to loosely retain the sections thereof in approximate relation to each other.

4. In a glove or mitt construction, a face having impact reducing means including an annularly arranged sectional member having an opening in the center thereof and means to loosely retain the sections thereof in approximate relation to each other.

5. In a glove or mitt construction, a face having impact reducing means comprising an annularly arranged sectional member of flexible material having an opening in the center thereof and means to loosely retain the sections thereof in approximate relation to each other whereby the sections may freely flex to conform to the hand of a wearer.

6. A glove or mitt construction comprising a face having an opening therein and impact reducing means spanning said opening, the edge of said face adjacent said impact reducing means being secured to the edge of said impact reducing means.

7. A glove or mitt construction comprising a face having an opening therein and impact reducing means spanning said opening, the edge of said face adjacent said impact reducing means being bent at an angle relative to said face and secured to the edge of said impact reducing means by cords extending through such bent portion and through said impact means.

8. A glove or mitt construction comprising a face having an opening therein and impact reducing means spanning said opening, the edge of said face adjacent said impact reducing means having a flange extending from the face and across the edge of said impact reducing means and a flange extending under said impact reducing means and means for securing said impact reducing means to said first mentioned flange.

Des Moines, Iowa, September 28th, 1931.

KENZIE K. KIRKHAM.