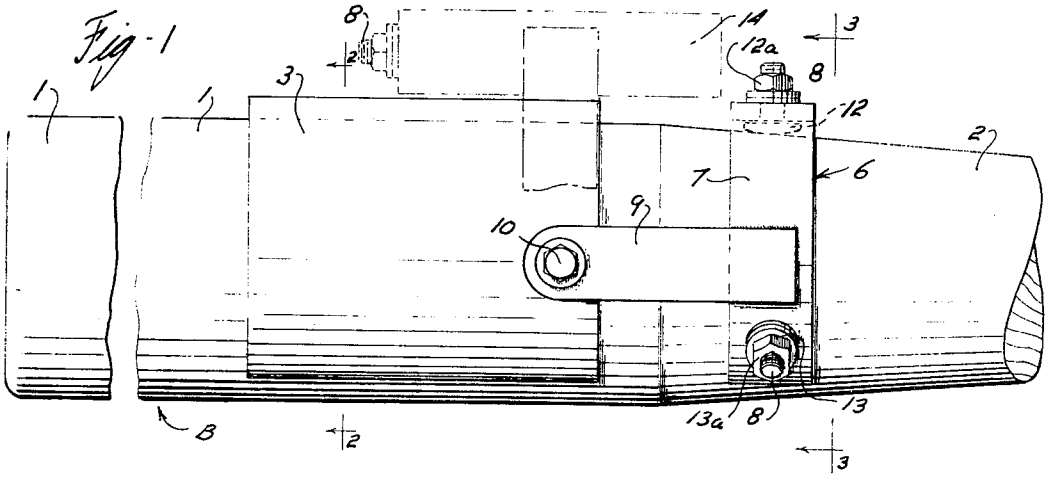
April 28, 1970 R. S. STRIMEL 3,508,748

DETACHABLE WEIGHT FOR BASEBALL BATS

Filed Jan. 18, 1968

Fig. 1



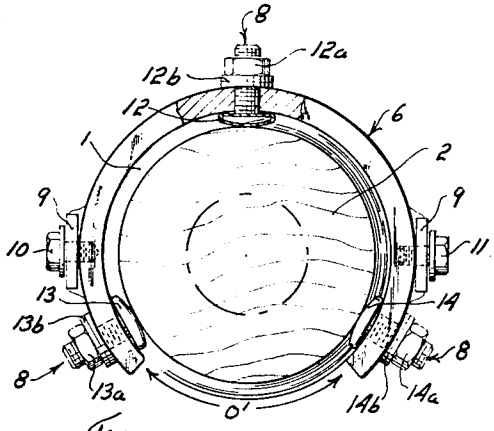
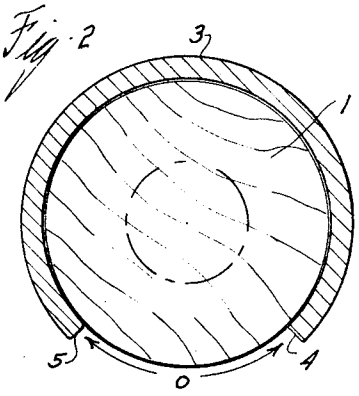


Fig. 3

Fig. 2



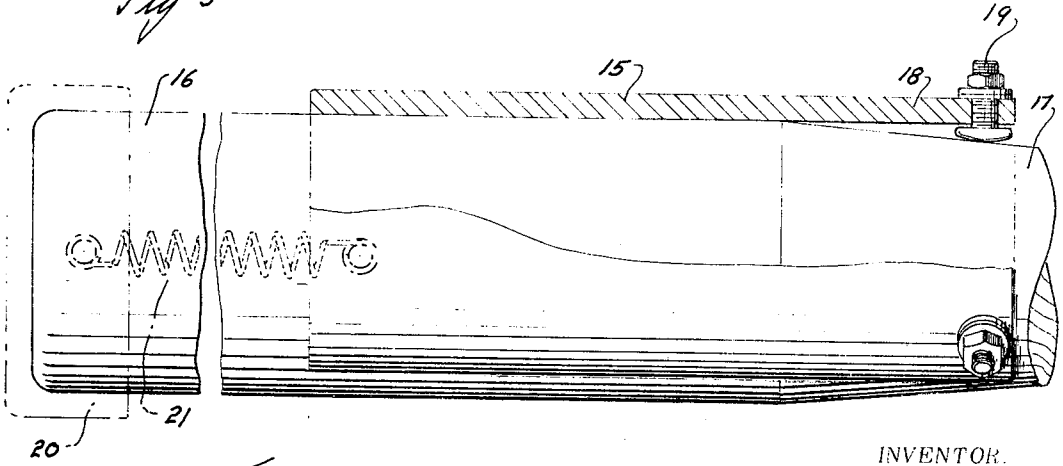


Fig. 4

INVENTOR.
ROBERT S. STRIMEL
BY
Synnestvedt & Lechner
ATTORNEY

United States Patent Office 3,508,748
Patented Apr. 28, 1970

3,508,748

DETACHABLE WEIGHT FOR BASEBALL BATS

Robert S. Strimel, Buckley Road, Penllyn, Pa. 19458

Filed Jan. 18, 1968, Ser. No. 698,923
Int. Cl. A63b 69/00
U.S. Cl. 273—26 2 Claims

ABSTRACT OF THE DISCLOSURE

A weight means readily mountable on (and removeable from) a baseball bat to increase the effective weight thereof, the weight being held on the bat by clamping structure wherein the head of a bolt engages the tapered section of the bat. The clamping structure may be in the form of a C-shaped clamp pivotally connected to the weight means and the bolt may be positioned either in the weight means or the clamp.

This invention relates to baseball equipment and in particular relates to a device for use with a bat which conditions the bat alternatively for use in regular hitting and for use in exercising and practice swinging.

More specifically, the invention contemplates means which can be temporarily affixed to a bat normally used for hitting purposes to thereby increase the effective weight of the bat and adapt the same for exercising and practice swinging.

From the beginning of baseball, it has been customary for the players to try to improve batting ability through exercise and practice swings with heavier-than-normal bats. Ordinarily, this is done by means of lead-weighted bats, or by swinging groups of 2 or 3 hitting bats. This custom developed in order to help strengthen the muscles of the player used in batting and enable the normal hitting bat to be swung faster, harder and with more wrist snap, and to enhance accuracy and control over the lighter hitting bat.

Among the disadvantages of the conventional way of exercising and practice swinging is that the gripping of the lead-weighted bat and/or the group of bats, does not have the same "feel" as the bat which the player normally uses for hitting purposes

Correct "feel" enhances compatibility between player and bat and is essential to good batting ability.

The present invention overcomes the above-mentioned disadvantage by providing a weight means which can be quickly attached to the bat normally used for hitting and thereby immediately convert the same for practice use. In this way, the "feel" or affinity of the player for a particular bat is retained both in practice and in hitting. The invention is constructed so that the increase in effective weight can be matched to the needs of the player and to the size, shape and weight of the bat.

Preferred constructions of the invention will be described below in connection with the following drawings, wherein:

FIGURE 1 is a side elevation of one embodiment of the invention as shown mounted on a bat;

FIGURE 2 is a view taken along the lines 2—2 of FIGURE 1;

FIGURE 3 is a view taken along the lines 3—3 of FIGURE 2; and

FIGURE 4 is a side elevational view partially in section showing another embodiment of the invention.

In FIGURE 1, the bat "B" has a conventional head section 1 and the section 2, which tapers down toward the handle (not shown). It will be understood that the bat "B" is exemplary only, there being a wide variety of bat models which vary in weight, length, handle size, barrel size and degree of taper. The bat with which the

device is intended for use is the bat normally used by the player for hitting purposes.

The main body weight 3 is C-shaped, as is shown in FIGURE 2. The opening O between the edges 4 and 5 is sufficient so that the body can be slipped over the tapered section 2. The inside diameter of the body is dimensioned to make a loose, sliding fit with the barrel section 1.

A retainer 6 comprises a clamp 7, lock bolts 8 and arms 9. The clamp 7 is C-shaped and is shown as disposed over the tapered section 2. The opening O is wide enough so that the clamp can be slipped over the tapered section 2. The arms 9 are fixed to the clamp 7 and extend axially to the body weight 3, where they are pivotally connected as by the pivots 10 and 11. The pivots permit the clamp 7 to tilt with respect to the body 3.

One of the principal features of the invention is that it enables the effective weight of the bat to be made compatible with the needs of the player and with the size and weight of the particular bat. This is attained by the construction of the retainer which provides for the device to be selectively positionable along the bat and to assume such position each time it is attached. By shifting the device along the axis of the bat, the effective weight can be increased or decreased as desired. The structure and operation of the retainer to achieve the foregoing will be explained below.

The clamp 7 fits around the bat to an extent that the lock bolts 8 can be located 120° apart as shown in FIGURE 3. The bolts extend through appropriately sized apertures in the clamp. The heads 12, 13 and 14 of the lock bolts have engagement surfaces contacting the tapered portion 2. Each head is preferably semi-spherical in shape and is rubber-coated so as to prevent marring or denting of the tapered section. Other materials, having a modulus lower than that of the bat, may constitute the engagement surfaces.

The lock bolt heads 12, 13 and 14 are each adjustable radially toward and away from the axis of the bat. When the heads 12, 13 and 14 occupy outward positions, the device assumes a position close to the tip of the barrel and when the heads occupy inward positions, the device assumes an inward position down toward the handle.

As shown in FIGURE 3, the heads 12, 13 and 14 occupy the outmost radial position and the device is located toward the barrel tip at a maximum outward position on the bat. This represents the maximum amount of increase in effective weight.

To decrease the effective weight, the device is made to assume a position inwardly toward the handle by adjusting the heads of the lock nuts inwardly. The heads of the lock nuts can be positioned toward the bat axis simply by removing the nuts 12*a*, 13*a* and 14*a*, and then putting one or more of the washers 12*b*, 13*b* and 14*b* between the head and the inside of the clamp.

Under normal conditions, it is contemplated that the device be used to increase the effective weight of the bat one, two or three times the actual weight.

The manner in which the device of FIGURE 1 is secured to the bat is explained following:

First, the device is held with the opening O facing downwardly and with the retainer tilted to the position shown by the dot and dash lines. The body 3 is then slipped over the tapered section 2 of the bat and the retainer rotated downwardly until the head 12 engaegs the tapered section. The body and retainer are moved to the left until such time as the heads 12, 13 and 14 come into firm engagement with the tapered section 2. The device will then be appropriately located along the axis on the bat.

The device is pulled up tight so that the heads are wedged on the tapered section. This prevents the device from slipping off when the bat is held in an upright position. As the bat is swung, the centrifugal force developed by the weight **3** will tend to move the device axially outwardly, but this movement is prevented by the heads **12, 13** and **14** engaging or wedging with the tapered section **2.**

It will be appreciated that the physical dimensions and material of the main body weight **3** can be varied to obtain an effective weight suited to the size, age and strength of the batter group, for example, the Little Leaguers, the high-schoolers and the professionals. It is preferable to obtain such variance by change in length or thickness or diameter of the body weight **3.**

For removal of the device of FIGURE 1 from the bat, it is preferable to turn the bat so that the opening O faces upwardly. The device is then pushed towards the tapered section **2** and, as the weight and the retainer move down on the tapered section, the gravity causes the retainer to falll away via the opening O and the main body weight **3** subsequently can drop away via the opening O.

In FIGURE 4, I have shown a simplified version of the invention. This comprises a C-shaped main body weight **15,** configured to fit over the barrel end **16** of the bat and to extend axially over the tapered section **17.** The body **20** has an opening similar to the opening O of the weight **3.** The right-hand section **18** of the body weight being connected with the portion over the barrel and having lock bolts **19** functions as a retainer means. The lock bolts **19** are identical in construction and operation as bolts **12, 13** and **14.**

For placing the device of FIGURE 4 on the bat, the same is held in the hand over the tapered section **17** and then is placed on the bat by way of the opening O, and then moved to the left over the barrel section **16** of a position determined by the adjusted position of the heads of the lock bolts **18.**

It will be appreciated that the devices of FIGURES 1 and 4 can be quickly mounted and detached, and this is of special advantage where the player is making practice swings before going to the plate. The player can get maximum practice time and without delay for removal of the device.

In some instances, particularly where the device is adapted for use with the Little Leaguers, it is preferable to incorporate a safety means. In FIGURE 4, the safety means is shown in phantom and comprises the cap **20** which fits over the barrel end and is secured to the body weight **15** by a pair of springs, one of which is indicated at **21.**

When the safety device is used with the embodiment of FIGURE 4, the cap **19** is positioned at the top of the body weight at the time the main body **15** is slipped over the tapered section. When the handle is moved to the position shown in FIGURE 4, the cap **21** is pulled against the tension of the springs into the position shown.

In the embodiment of the invention of FIGURE 1, I have shown the main body weight as having an opening which is used for slipping the body over the tapered section of the bat. It will be understood that the invention contemplates the body of FIGURE 1 to be constructed without an opening, i.e., a complete tube. A device as shown in FIGURE 1, constructed with a body without

an opening is placed on and removed from the bat as follows:

First, the retainer **6** is tilted to the position shown by the dot and dash lines and then the body is moved past the tip of the bat over the barrel section **1** until the retainer is positioned over the tapered section **2.** The retainer is then swung downwardly until the head **12** engages the tapered section. The body and retainer are then moved to the left until such time as the heads **12, 13** and **14** come into firm wedging engagement with the tapered section **2.**

For removal of the device just described, the bat is turned until the opening in the retainer faces upright. The device is then moved to the right until the heads are free from the tapered section and gravity causes the retainer to fall away. Then the device is removed by pulling the same back over the barrel section.

I claim:

1. A device for increasing the effective weight of a baseball bat, comprising:

a main body weight configured to fit around a bat; and

retainer means connected to said body weight and adapted, when the device is disposed on a bat, to be located adjacent to the tapered section of the bat, the retainer having mechanism engaging the tapered section while the bat is being swung and operating to prevent outward axial movement of the device over the barrel of the bat due to centrifugal force developed, the connection of the retainer means with the body weight rendering the device immovable during a swing, said mechanism including a plurality of bolts adjustable toward and away from the axis of the bat, the head of each bolt being adapted to engage said tapered section.

2. A device for increasing the effective weight of a baseball bat comprising:

a C-shaped main body weight configured to fit over a barrel of a bat; and

retainer means including a C-shaped clamp configured to fit over the tapered section of the bat, a plurality of bolts attached to the clamp, the head of each bolt having a surface adapted to engage the tapered section of the bat while the bat is being swung, the engagement preventing outward axial movement of the device over the barrel of the bat due to centrifugal force developed, and arm means pivotally connecting the clamp and the main body weight and providing for the clamp to be tilted with respect to the body weight.

References Cited

UNITED STATES PATENTS

1,030,982	7/1912	Dinger	273—72
2,543,722	2/1951	Hetzel	273—194 X
2,608,409	8/1952	Pinkerton	273—194
2,950,115	8/1960	Hurdzan	273—194 X
3,351,346	11/1967	Strahan	273—193

GEORGE J. MARLO, Primary Examiner

R. J. APLEY, Assistant Examiner

U.S. Cl. X.R.

272—84; 273—194