Sept. 26, 1933. A. M. BARRON 1,928,280

ADJUSTABLE BASE FOR POLE VAULTING STANDARDS

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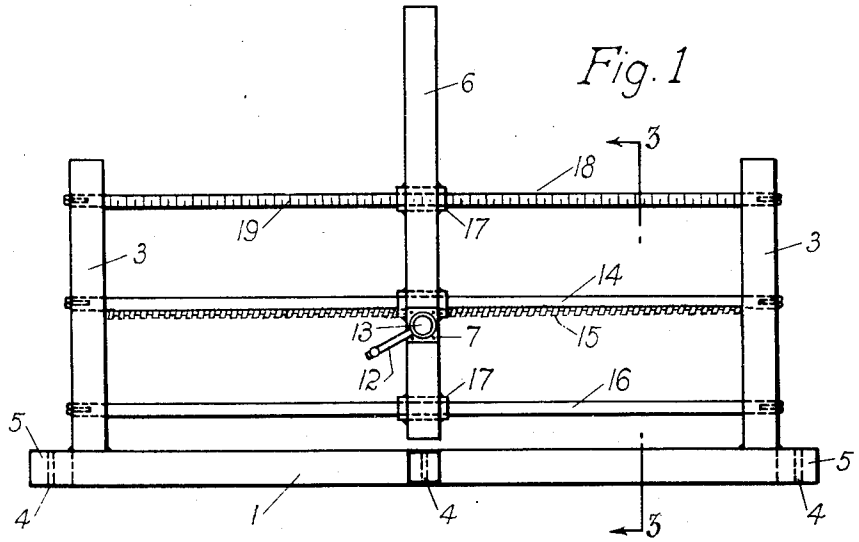
Fig. 1



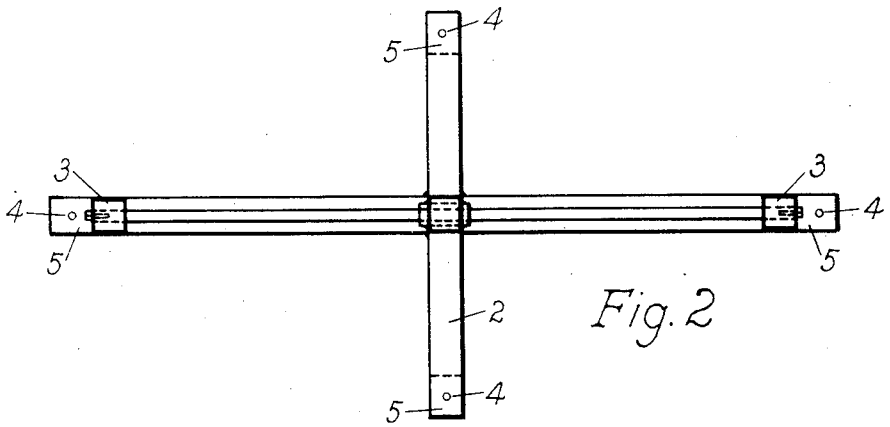


Fig. 2

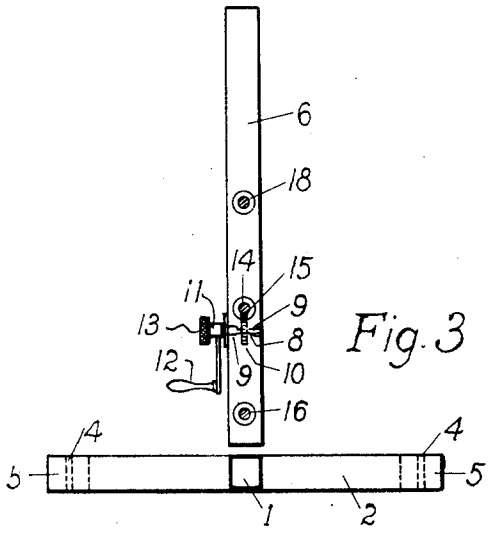


Fig. 3

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ADJUSTABLE BASE FOR POLE VAULTING STANDARDS

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3 Claims. (Cl. 272—59)

My invention has to do with the art of pole vaulting, and with pole vaulting standards generally.

In its preferred embodiment the invention is a device for holding erect the standards used in the field event of pole vaulting in track meets and comprises a mechanism for the precise and ready adjustment of the standards to accommodate the individual requirements of the vaulter as allowed by rules. While the invention includes the combined instrumentalities above mentioned, I wish it to be understood that I consider the aforesaid means not only combinatively novel, but in so far as I am advised, certain of the devices going to make up such means are new in less combinations than the whole, and some capable of individual use, as will more clearly appear hereinafter.

To explain fully the advantages of my invention I shall refer briefly to the conventional method for undertaking the athletic event of pole vaulting. The contestant in pole vaulting runs down the run way and inserts the pole into the vaulting box and then swings himself into the air. The swing is followed by a pull up and then a hand stand in order to clear the bar and fall into the landing pit lying just beyond the cross bar. In order that these successive movements in the vault may be executed with proper timing in order to vault the maximum height, individual vaulters must vary the distance between the vaulting box and the projection of the cross bar. In fact any one vaulter must alter this distance depending upon the height he wishes to vault.

With the foregoing in view, my invention provides a means for adjusting this distance in a minimum of time. My means for regulating this distance is susceptible of such precise and quick adjustment as to admit of its application to the many different types of technic and form displayed by the contestants in the pole vaulting event.

Supplementing this advantage of a quick adjustment of the aforementioned distance in contradistinction to the conventional method of moving the bases is that of eliminating the long delays between vaults. A material reduction in the time between successive vaults by a contestant prevents him from becoming cold and weary and accordingly conserves his energy and stimulates his interest.

Furthermore, my adjustable bases may be mounted on platforms—an arrangement that breaks the continuous straight lines of the uprights high in the air and gives the contestant the psychological advantage that the cross bar appears lower than it really is.

From the view point of the spectators my invention is conducive toward their increased appreciation of the pole vaulting event in that with the elimination of tedious delays their response to the thrills of the contest is maintained with greater interest and anticipation.

The coach of pole vaulting is similarly benefited in view of the fact that he can more readily observe the faults of a vaulter and can more easily suggest corrective measures since the cross bar can be shifted quickly in respect to its longitudinal distance from the vaulting box.

In addition, the officials of a pole vaulting contest can expedite their duties through the instrumentality of my adjustable bases. Instead of diverting their time and attention to the moving of the unwieldy conventional bases the officials, knowing in advance the position of the standards for various heights and contestants, can more easily enforce the National Collegiate Athletic Association's suggestion that a maximum of two minutes is adequate for every pole vault trial.

From the view point of accurate records my adjustable bases are indispensable. In moving the conventional bases back and forth in order to accommodate the personal requirements of the contestants the vertical distance vaulted is often in error an inch or more because of the occasional elevations and depressions in the ground. My mechanical means of adjusting the uprights in respect to the stationary bases eliminates every possibility of confusion or dispute and assures reliable measurements.

For the purpose of illustrating my invention I have shown in the accompanying drawing one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which by invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of the instrumentalities as herein shown and described.

In the accompanying drawing:

Fig. 1 is a side elevational view of the base embodying the adjusting mechanism of my invention in actual use.

Fig. 2 is a plan view of the adjustable base.

Fig. 3 is a sectional view on line 3—3 of Fig. 1.

Referring to the drawing, in which similar numeral references indicate corresponding parts, 1

and 2 are structural members consisting of square steel tubing or any other suitable material and adapted to lie in a flat horizontal plane and to serve as the base or the support of the adjusting mechanism. The upright members 3 are vertically attached to the member 1 and are adapted to receive and support laterally the aforementioned adjusting mechanism. Members 1, 2 and 3 are preferably fabricated of square steel tubing and welded to one another, although they may be cast as an integral unit or assembled of any appropriate material in any manner whatsoever. At the extremities of the members 1 and 2 are vertically disposed holes 4 adapted to receive means—a stake, a screw, a nail or a bolt—to anchor the base securely to a platform (not shown). If desired, wooden blocks 5 may be inserted into the ends of the members 1 and 2 comprising the base in order to facilitate stable anchorage of my device.

The standard 6, which supports the cross bar (not shown) carries the housing 7 in which are mounted the axis 8, suitably journaled at bearings 9, and the gear 10. The standard 6 is preferably a short section of square steel tubing into which the cross bar can be inserted or it may be designed and constructed to a full length sufficient to carry the cross bar. The axis 8 terminates in the end 11 on which is imposed the operating handle 12 and which is maintained securely in position by the knurled nut 13, engaging with the threaded end 11. Through the housing 7 pass the guide rod 14 attached rigidly to the upright members 3 by any suitable conventional means and the worm 15 with which the gear 10 engages to move the standard 6 to any desired position between the upright members 3. The guide rod 16 is similarly attached to the upright members 3 and serves to maintain the standard 6 in vertical alignment since the standard 6 and its rigidly attached guide member 17 are so perforated as to move freely over the rod 16. Rod 18 is not only attached to the upright members 3 and adapted to permit the movement of the standard 6 along its length in a manner similar to rod 16, but is also graduated in conventional linear units from one extremity to the other. The graduated scale 19 allows a precise adjustment of the standard 6 with respect to any fixed reference object such as a vaulting box (not shown).

The operation of my device is as follows:

The adjustable pole vaulting bases are securely mounted upon platforms prior to the trial by the contestant in a manner previously described. If a plumb line be dropped from the cross bar to the ground beneath, it usually strikes a point several inches beyond the vaulting box and toward the landing pit. However, individual vaulters require for efficient vaulting different distances between the vaulting box and the cross bar and in some instances prefer that the vaulting box lie on the other side of the cross bar toward the landing pit. Since the position of the vaulting box is fixed, it becomes necessary in order to accommodate these individual requirements to shift the standards along lines parallel to the run way and the landing pit. If the vaulter wishes the vaulting box to be 10 inches in advance of the cross bar as he runs down the run way, several turns of the operating handle 12 move the gear 10 along the worm 15 and carry the standard 6 to the desired position. The guides 14, 16 and 18 maintain the standard 6 in perfect vertical alignment. If another vaulter at the same height of the cross bar or the same vaulter at a different height of the cross bar desires the vaulting box to be beyond the cross bar toward the landing pit as he comes down the run way, a few turns of the operating handle 12 move the standard 6 and the cross bar to such a position that the required relative distance between the vaulting box and the cross bar is observed. The ease of manipulation is obvious and marks my device as infinitely superior to the conventional method of shifting the cumbersome bases. No matter what may be the reason for changing the relative distance between the vaulting box and the projection of the cross bar on the ground, whether it be to take more time for the swing, the pull up and the hand stand when the vaulting box lies beyond the cross bar toward the landing pit or to change the distance in order to vault more efficiently the greater vertical heights, such a change is comparatively a simple adjustment with my device in view of the graduated scale and a previous knowledge, gained through practice, of the different relative distances required by the contestants.

Although my invention in its present embodiment applies more specifically to pole vaulting yet its application to high jumping and similar athletic events can be made with little modification.

I am aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and I therefore desire the present embodiment to be considered in all respects as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In combination in apparatus of the class described, a base, upright members mounted therein and carrying horizontal guide rods, an upright standard horizontally movable along said guide rods, and means for adjusting the position of said standard along said guide rods.

2. In combination in apparatus of the class described, a base, upright members mounted therein and carrying horizontal guide rods, one of said rods being graduated in linear units, an upright standard horizontally movable along said guide rods, a worm mounted horizontally between said upright members, and a gear attached to said standard and meshing with said worm, said worm and gear adapted to adjust the position of said standard along said guide rods.

3. In combination in apparatus of the class described, a base comprising horizontal members at right angles to each other, said members adapted to be securely attached to a platform, upright members mounted at the ends of said base and carrying horizontal guide rods, one of said rods being graduated in linear units, an upright standard horizontally movable along said guide rods, said standard adapted to receive a conventional standard, a worm mounted horizontally between said upright members, and a gear attached to said standard and meshing with said worm, said worm and said gear adapted to adjust the position of said standard along said guide rods.

ALBERT MILTON BARRON.