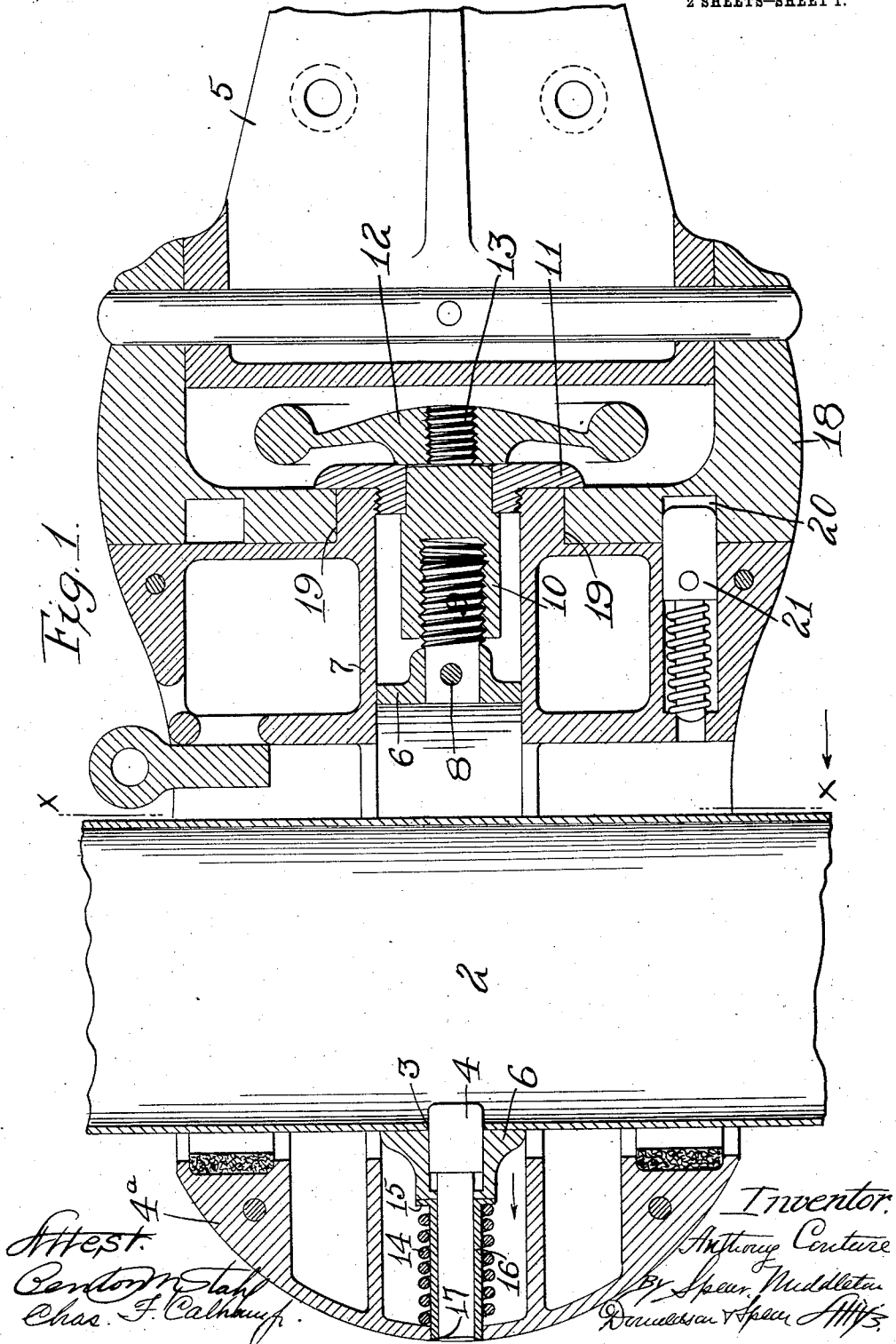


A. COUTURE.
EXERCISING DEVICE (VAULTING BAR).
APPLICATION FILED APR. 16, 1912.

1,047,754.

Patented Dec. 17, 1912.

2 SHEETS—SHEET 1.



A. COUTURE.
EXERCISING DEVICE (VAULTING BAR).
APPLICATION FILED APR. 15, 1912.

1,047,754.

Patented Dec. 17, 1912.

2 SHEETS—SHEET 2.

Fig. 3.

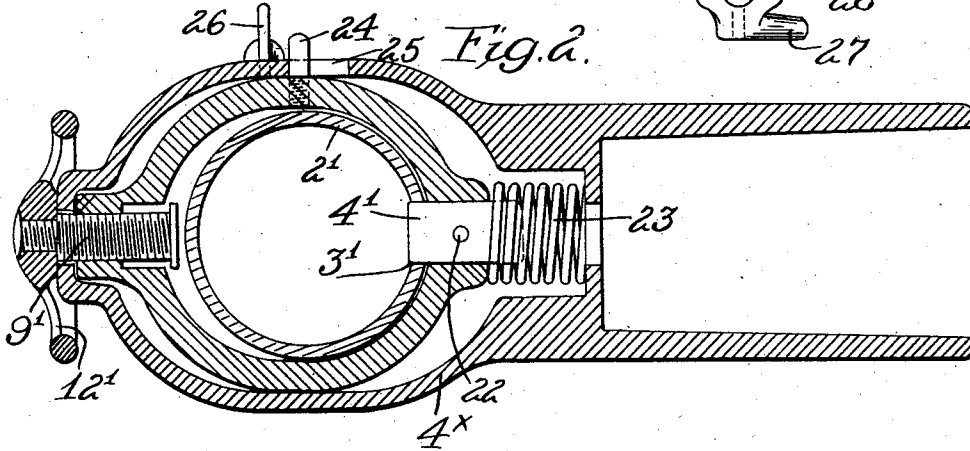
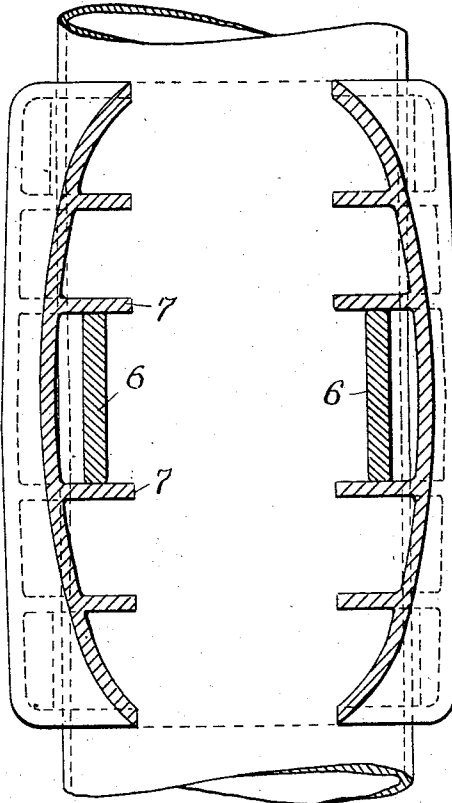


Fig. 4.



Attest.

Centon M. Stahl
Chas. F. Cathouf.

Inventor.

Anthony Couture

By Spear, Middleton, Desautels & Spear
Attys.

UNITED STATES PATENT OFFICE.

ANTHONY COUTURE, OF CHICOPEE, MASSACHUSETTS, ASSIGNOR TO A. G. SPALDING & BROS. MANF'G. CO., A CORPORATION OF MASSACHUSETTS.

EXERCISING DEVICE, (VAULTING-BAR.)

1,047,754.

Specification of Letters Patent.

Patented Dec. 17, 1912.

Application filed April 15, 1912. Serial No. 690,872.

To all whom it may concern:

Be it known that I, ANTHONY COUTURE, citizen of the United States, residing at Chicopee, Massachusetts, have invented certain new and useful Improvements in Exercising Devices, (Vaulting-Bar,) of which the following is a specification.

My invention relates to exercising apparatus of the vaulting bar or Swedish bar type, in which a boom is carried by uprights adjustably.

One object of my invention is to provide means for holding the boom or bar to the uprights firmly, and without play or movement between the parts when in use, and my invention involves the use of a holding pin for sustaining the boom on the uprights, one of said pins being employed at each end thereof, and a friction clamping shoe carried by a coupling at the end of the boom to exert pressure upon the upright without marring the surface of the same in any way.

The invention is shown in the accompanying drawings, in which:

Figure 1 is a central vertical sectional view through a portion of one of the uprights and one of the couplings to which the boom is attached, my invention being carried by the said coupling; Fig. 2 is a sectional plan view of another form of my invention adapted to a horizontal bar type of exercising apparatus; Fig. 3 is a detail view. Fig. 4 is a sectional view on the line X-X of Fig. 1.

Referring to Fig. 1, 2 indicates one of the hollow uprights which is provided with openings one of which is shown at 3 to receive a spring pin 4, said pin being carried generally by the coupling shown at 4^a, said coupling having an extension at 5 to which the boom is secured in any suitable manner. The spring pin is mounted slidably in a sliding shoe 6 in the form of an ellipse, which shoe is slidably mounted in the coupling between the guideways or portions 7. The shoe has pinned thereto at 8 a screw threaded extension or member 9 which is engaged by a nut 10 of sleeve form mounted rotatably in a cap piece 11 screw-threaded into the coupling, the said nut having a handle 12 attached thereto by a screw-threaded extension 13 of the nut, so that by turning this handle the clamping shoe may be moved along the guides of the coupling to or from the upright 2. It will be noticed

that the shoe on its interior face is curved on an arc conforming to the surface of the upright, and in assuming position to clamp the coupling to the upright there is no sliding or turning action of the clamping shoe against the surface of the upright which would tend to damage the same, but this contact takes place by the direct movement of surface to surface. The spring pin is pressed by a spring 14 bearing at one end against the casing of the coupling, and at its other end upon a shoulder 15 carried by the pin, this shoulder being formed by a flange on a sleeve 16 carried by the shank of the spring pin and riveted thereto, as indicated at 17, so that, in effect, it is a fixed part of the pin structure. In order to disengage the spring pin from the upright so that the coupling, together with the boom or bar, may be adjusted vertically along the upright, the handle 12 is turned to retract the elliptical shoe 6, and this presses back the spring pin by engaging with the shoulder 15 thereof. When the spring pin is retracted from the opening, the coupling can be raised or lowered, the shoe being free from the upright sufficiently to permit this, and when the approximate position has been reached the shoe may be advanced to the upright, and as soon as the pin registers with the opening in the upright it will spring forward into the same, the parts assuming the position shown in Fig. 1.

A form of boom or bar may be used having different hand hold surfaces thereon, and in order to bring these different surfaces into use the bar may be adjusted about its axis, and for this purpose the coupling is provided with the member 18 swiveled to the main portion of the coupling by fitting thereon at 19 and being retained by the cap 11. This swiveled member 18 may have any suitable number of recesses 20 to be engaged by a spring pin 21, which will hold the swivel member in the desired positions. The spring pin may be retracted by any suitable device. In Fig. 2 I show another form of my invention adapted for horizontal bars in which the upright 2' is substantially the same as that first described, excepting that it has the openings at 3' in the side opposite to that in which the openings are formed in the first form of the invention, and the spring pin 4' in this instance is attached to the binding collar or elliptical shoe by means

of a pin 22. The clamping shoe is pressed by a spring 23 bearing thereon and on the wall of the coupling 4^x. Diametrically opposite the pin and the spring arrangement I provide a device for operating the clamping shoe consisting of the hand wheel 12' to which is fixed a threaded rod 9' which engages the clamping shoe, the said screw-threaded rod 9' finding a bearing in the wall of the coupling, and the hand wheel also finding a bearing against this wall. The threaded rod 9' is fixed to the hand wheel by upsetting or riveting its end over upon the hand wheel. The clamping shoe carries a pin 24 passing through a slot 25 in the wall of the coupling, and this pin is adapted to be borne upon by a clamping button 26 pivotally mounted to the coupling and having an extended end 27 to engage the pin 24. In the operation of this device if it is desired to release the coupling from the upright the handle 12' is turned to run the screw rod 9' back through the wall of the coupling a sufficient distance that when a direct thrust is applied to the hand wheel in the direction of its axis, the clamping shoe will be pressed bodily toward the right in Fig. 2 far enough to withdraw the pin 4' from the opening in the upright, this action being against the pressure of the spring 23, and it being understood that the rod 9' is not threaded into the coupling but only into the clamping shoe or collar. Therefore, the rod 9' can slide freely through the coupling when said pressure is applied. The rod 9', of course, maintains its screw thread engagement with the clamping shoe. When the parts have thus been thrust to the right, the whole coupling may be moved up or down along the upright until the desired opening is reached, when, by removing pressure from the hand wheel, the spring 23 may exert its force to press the friction or clamping shoe toward the left, and thus cause the pin carried thereby to enter the opening in the upright, and this position having been reached, the parts may be clamped by turning the hand wheel 12' so that the screw rod 9 will move inwardly in respect to the clamping shoe, and the hand wheel having become seated against the exterior face of the coupling, further rotary movement of said hand wheel will cause the screw rod 9' to draw the clamping shoe tight against the upright, and thus securely clamp the parts in place. If it is desired to hold the clamping shoe with the pin retracted in relation to the upright, the button 26 may be turned after the shoe has been pressed toward the right, and this will bring the extension 27 of said button against the pin 24 to hold it at the extreme right of the slot 25. It will be seen that in this form as well as in the form first described the clamping of the coupling to the upright is done by a friction shoe which has a move-

ment directly toward and from the said upright, and whose contact is by direct pressure as distinguished from a sliding, grinding or turning pressure, and thus marking of the finish of the upright is avoided.

My invention is distinguished among other features by having a clamping shoe of curved form extending beyond the clamping surface of the curved shoe, and a spring for causing the pin to enter the openings in the upright however these parts may be arranged or combined.

I claim as my invention:

1. In combination in apparatus of the class described, a frame member having openings therein, an exercising member or bar, a coupling to connect said member with the frame member, a pin carried by the coupling to enter the openings in the frame member, and a clamping shoe having only direct non-rotary-pressure upon the frame member, with means for operating said friction clamp shoe, substantially as described.
2. In combination a frame member having openings therein, a member to be supported thereby, a coupling between said members, a pin carried by the coupling to enter holes in the frame member, a clamping shoe supporting the pin, means for operating the clamping shoe, said clamping shoe having a curved surface conforming to the curve of the frame member, substantially as described.
3. In combination an upright having openings therein, a horizontal bar, a coupling between said parts, a pin supported by the coupling to enter the openings in the upright, a clamping shoe encircling the upright, the means for operating the said clamping shoe, said means being carried by the coupling, substantially as described.
4. In combination an upright having openings therein, a horizontal bar or like member, a coupling between the same and the upright, a friction clamping shoe carried by the coupling to bear upon the upright, a pin supported by the shoe to engage the openings in the upright, said shoe encircling the upright, and means carried by the coupling at a point diametrically opposite the pin for operating the said shoe, substantially as described.
5. In combination an upright having openings therein, a horizontal bar, a coupling between said parts, means for holding the coupling to the upright consisting of a spring pin to enter the openings in the upright, an elliptical clamping shoe supporting the spring pin, and means for operating the clamping shoe, substantially as described.
6. In combination the upright having openings therein, a horizontal bar, a coupling between said parts, a shoe movable toward and from the upright to clamp the same by a movement without turning or sliding in contact therewith, and a pin sup-

ported by the shoe, a spring to cause the pin to enter the openings in the upright, and means for operating the shoe, substantially as described.

5 7. In combination an upright having openings therein, a horizontal bar, a coupling between said parts, a clamping shoe slidably connected to the coupling, means for operating the same, a spring pin to en-
10 gage the openings in the upright, and a spring bearing on the coupling at one end and on a shoulder of the pin at the other end, substantially as described.

15 8. In combination, an upright, a horizontal bar, a coupling between the said parts, including a swiveled connection between the horizontal bar and said coupling, and a pin held under compression for locking said swivel connection, substantially as described.

20 9. In combination an upright having openings therein, a horizontal bar, a clamping shoe in connection with the horizontal

bar, said shoe being of curved form to engage the curved surface of the upright, and a spring pressed pin extending beyond the clamping surface of the curved shoe to enter
25 the openings in the upright, said pin and clamping shoe being adjustable with the horizontal bar along the said upright, substantially as described.

30 10. In combination, a horizontal bar, a perforated upright, a pin to engage upright, curved clamping means moving with the horizontal bar and supporting the pin along the upright, and a spring compression to
35 force the pin into the perforations of the upright.

In testimony whereof, I affix my signature in presence of two witnesses.

ANTHONY COUTURE.

Witnesses:

R. W. BURKE,
M. M. OLWELL.