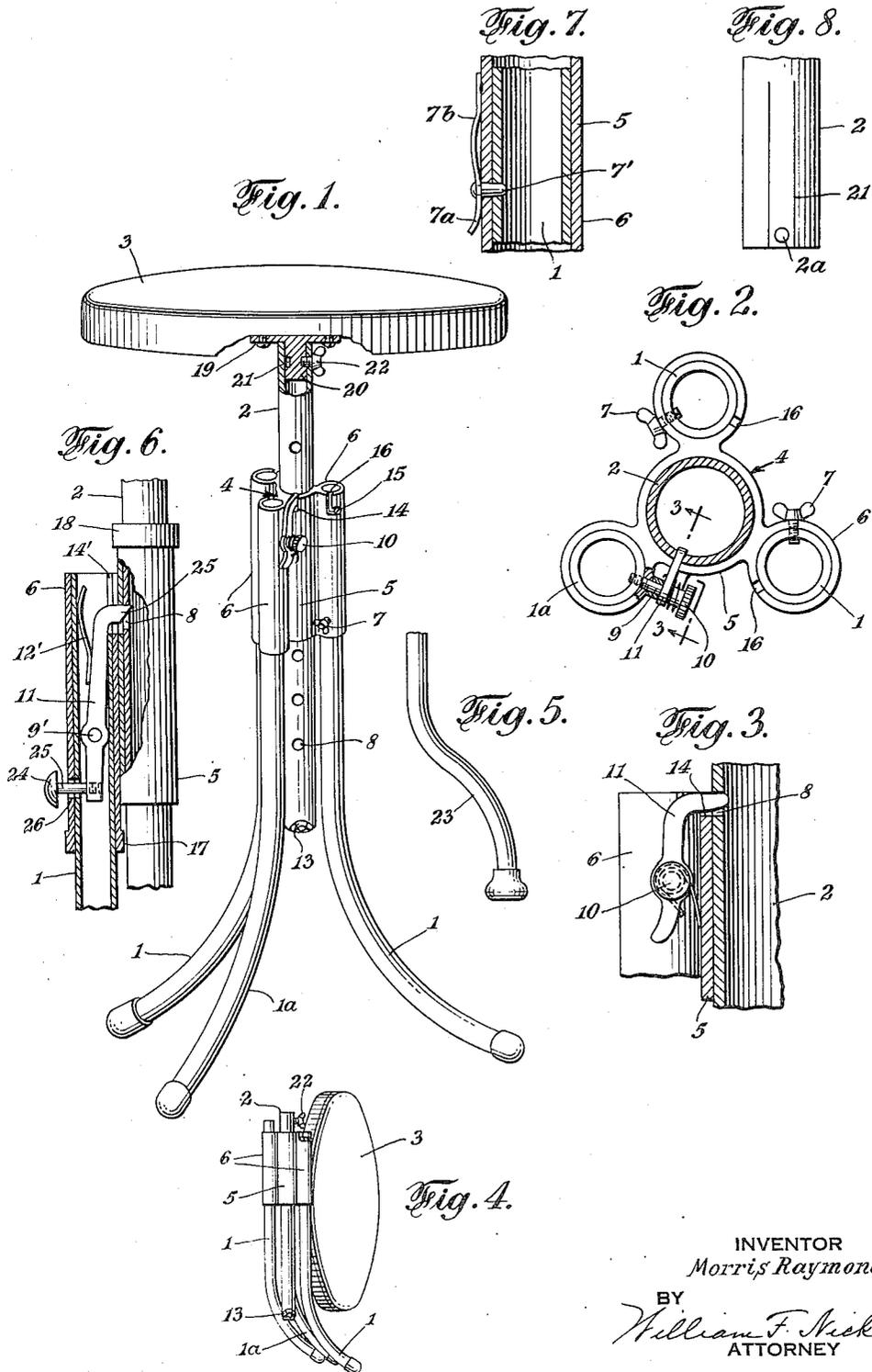


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M. RAYMOND
COLLAPSIBLE CHAIR OR STOOL

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INVENTOR
Morris Raymond.

BY
William F. Nickel
ATTORNEY

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COLLAPSIBLE CHAIR OR STOOL

Morris Raymond, Brooklyn, N. Y.

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2 Claims. (Cl. 155-137)

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This invention is an improvement in stools or chairs; and more particularly a chair or stool of medium size and portable design consisting of folding and detachable parts to enable it to be collapsed and easily carried about; or conveniently set up and secured in the required positions for use.

An object of the invention is to provide a chair that is rugged and durable, light in weight, and easy to manipulate. To this end, the principal supporting members are of tubular formation and made of some suitable metal, plated or otherwise processed to have the necessary strength and be capable of remaining untarnished and keep a bright finished appearance. In its preferred embodiment, the chair or stool, when once set up, can be manipulated with one hand to make an adjustment in the height thereof to suit the needs or desire of the immediate occupant.

The nature and advantages of the invention are made clear in the following description; and the novel features are pointed out in the appended claims. But the disclosure is by way of example only and changes may be made in structural details without departure from the essential construction in which the invention resides.

On the drawings:

Figure 1 is a perspective view showing the stool or chair in readiness to serve its purpose.

Figure 2 is a top plan view of the coupling member uniting the seat post and the legs.

Figure 3 is a view in section on line 3-3 of Figure 2.

Figure 4 presents the chair collapsed for packing and carrying.

Figure 5 shows another design of leg for the chair;

Figure 6 is a view similar to Figure 3 showing a modification; and

Figures 7 and 8 show further details.

The chair or support comprises two legs 1 and a third leg 1a, and a central post 2 supporting a seat 3. The legs and post are united by a hollow coupling head or member 4, that has a bearing 5 in the middle for the post 2, which can be adjusted up or down, and sockets or bearings 6 rigid with the bearing 5 and disposed equidistantly apart on the exterior of the latter. The one leg 1a is rigidly affixed at its top in one of the sockets 6, as by welding it thereto; and the shape of this leg and its position being such that the plane thereof contains the axes of said socket and the bearing 5. The tops of the other two legs 1 are secured in the other sockets 6 by screws 7, which hold the legs so that they cannot slip or turn in the sockets 6.

The post 2 and legs are of hollow tubing so as to be strong and light, and the post 2 has a vertical row of openings or notches 8. On the coupling 4 is a horizontal pivot stud 9 with a head 10; the stud being screwed fast in the socket 6 for the leg 1a, and this leg also therein. On this stud 9 is a movable catch 11, which is engaged

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by a spring 12 encircling the stud 9 so that the upper end of the catch is forced to enter one of the apertures 3. The catch holds the post 2, and prevents movement thereof downward in the coupling 4.

To adjust the seat, one need only press with a finger on the lower end of the catch 11 to force it out of the engaged aperture 3. The post 2 can then be lifted and then turned in the bearing 5 to put the apertures on the post out of line with the catch; it can be raised or lowered in the coupling and then turned to allow the catch to enter another aperture 3 and again support the post 2 and seat 3. The seat can thus be adjusted without difficulty, in practice, from a height of say 14 inches up to 30 inches. After the post 2 is mounted in the coupling 4, a screw 13 is attached to the lower end of the post in the side thereof below the coupling to act as a stop and prevent the post 2 being pulled out of the coupling 4. The upper end of the bearing 5 may have a notch 14 adjacent the catch 11, to give it clearance.

Each of the two legs 1 is adapted to receive a stud 15 at the upper end. This stud may be a screw with a head thereon, to be attached to the outside of each leg 1 after the leg has been pushed through its socket 6 from the lower end of the latter. Each socket 6 for the two legs 1 has an angular or "bayonet" slot 16 extending downward from the upper edge, with the inner extremity of the slot horizontal. When the leg is in the socket with its upper end above the top, the screw or stud 15 is inserted into a hole in the side of the leg; and the latter is then pulled down with the element 15 in line with the slot 16 to draw said element into the slot. Next the leg is turned and the element 15 enters the laterally extended part of the slot at the inner end of the same. Then the two legs 1 are held against longitudinal movement. The lower ends of the sockets for the legs 1a and these legs also, have an opening therein; and when the studs 15 properly engage the inner extremities of the slots 16, the locking elements or screws 7 are inserted; and thus the legs 1a are secured against turning, and the studs 15 cannot move into line with the vertical parts of the slots 16. The legs are thus spread out radially and rigidly maintained in supporting positions; and they are now 120 degrees from the leg 1a and each other.

The seat 3 can be upholstered and of any desired structure and may be equipped with a hinged back, not shown, to be folded down on the top of the seat when the chair is to be packed. To the bottom of the seat is affixed a metal disk or plate 19, having a central boss 20, with a circumferential groove 21. In the upper end of the post 2 is a screw 22 to enter the groove 21 and keep the seat in place on the post 2.

The chair or stool can thus be made ready for use in a moment, and it can just as quickly be collapsed. The screws 7 are merely turned back

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far enough to release the two legs 1 which they bind and these two legs are then brought together with the third leg 1a which is fixed to the coupling 3. The horizontal parts of the slots 16 facilitate this folding movement. The seat is then removed and all the members of the article can then be gathered into small compass, as shown in Figure 4, to be put into a bag for carrying or stored away.

The elements 7 and 22 can have the form of spring-pressed catches, permanently mounted on the two legs and the post 2, like the catches 11, or on the order of these, so that they do not have to be detached when the chair is collapsed and folded.

The chair is thus nicely calculated to gain all the objects of the invention. It is an article of utility well adapted for professional workers, in dental parlors, beauty parlors, barbers' establishments, artists' studios, salesrooms, class rooms in art schools, the bathroom, kitchen or elsewhere in the home, and many other places. It can also be handily taken along on picnics and outings at the seaside or in the country. When collapsed, it makes a small neat package that the manufacturer can easily ship to the buyer. The legs may have the shape indicated on Figure 1 or be formed as shown at 23 on Figure 4 or otherwise.

In Figure 6, the structure of the coupling has the central bearing 5 projecting a little higher than the sockets 6 and the latter extend a little beyond the lower edge of the bearing 5. The lower edges of the sockets 6 are provided with relatively thick collars 17, which, in the sockets 6 for the legs 1 have the threaded openings in line with the openings of the legs 1 therein to receive the fastening elements 7. The latter and the screw 13 are wing screws and easy to handle. The screws 7 need not be removed when the chair or stool is collapsed. They only require to be turned back to release the legs 1a and can remain attached to the sockets 6 and turned back far enough to stay in place and be ready for use again. They are located at the sides of the sockets 6, near the bushing 5, to be out of the way. The upper edge of the bearing 5 can be similarly reinforced by a collar or flange 18. The top of the post 2 can also have a collar, if desired for the wing screw 22.

In the modification of Figure 6, the catch or stop 11 is inside the stationary leg 1a. The catch is pivoted on a stud or journal pin 9' mounted in the leg 1a and the containing socket 6. Its bent over upper end projects through recesses or notches 14' in this leg and socket and engages any one of the apertures 8 in the post 2. A leaf spring 12' in the leg, affixed to the catch, acts to press the catch into hold position. A button or head 24 on the outside of the socket has a shank 25 extending through a hole in the socket and secured to the catch in the leg 1a. Pressure on the button 24 releases the catch. The latter is thus entirely concealed instead of being exposed as previously described.

Figure 7 shows how the elements 7, that are easily lost, can be replaced by catches which remain in place and do not have to be dismounted from the parts carrying them when the chair is collapsed. Each of the legs 1 and the socket 6 containing it may have registering openings to receive a locking pin 7'. This pin has a head or flange 7a outside of the socket 6, and to this flange is secured the end of a leaf spring 7b, attached as by an ordinary screw. The spring 7b is so set that it presses and holds the pin

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7' in the openings of the parts 1 and 6. The part 7b is so shaped that it can easily be engaged by the finger to withdraw the pin 7' whenever the leg is to be released. Then the pin will be held in only the bushing 6.

Further, to avoid the use of the detachable screw at the lower end of the post 2, this post may be cut as indicated in Figure 8 to form a tongue 21 at the lower end with a small knob or protuberance 2a. The tongue 21 is resilient and to insert this post in the bearing 5, the knob 2a can easily be pressed inward with the fingers. When the knob 2a passes through the lower end of the bushing it will project beyond the outer surface of the post and prevent the post from being pulled out of the bearing 5 if this post is lifted. The post can always be removed merely by pressing inward on the knob 2a until this knob clears the lower edge of the bearing 5.

The catch 11 can have the shape indicated in Figure 3, or as in Figure 6; where a bevelled end 25 is shown. In the latter view, if the post is pulled up, the catch can easily be disengaged even if the button 24 is not pressed inward.

In this description and the drawings the chair is disclosed as having three legs. If desired, of course four legs can be used, one of the legs being affixed like the leg 1a, and the others being mounted in the coupling 4, so that they can be folded as shown in Figure 4.

Having described my invention, what I believe to be new is:

1. A collapsible support comprising a post carrying a seat at the top, radially extending legs, a coupling member having a central bearing to receive the post and a catch to engage cooperating means on the post and hold the post in adjusted position, sockets for the legs on the exterior of the central bearing, the upper part of the legs being received in said sockets, all but one of the legs and sockets having releasable bayonet slot connections, said one leg being rigidly fastened in the socket therefor, so that the legs having such releasable connection can be rotated to supporting positions or folded against said one leg, and retaining elements to hold the other legs in assembled position in said sockets.

2. A collapsible support comprising a post carrying a seat at the top, radially extending legs, a coupling member having a central bearing to receive the post and a catch to engage cooperating means on the post and hold the post in adjusted position, sockets for the legs on the exterior of the central bearing, the upper part of the legs being received in said sockets, all but one of the legs and sockets having releasable bayonet slot connections, said one leg being rigidly fastened in the socket therefor, so that the legs having such releasable connection can be rotated to supporting positions or folded against said one leg, and retaining elements to hold the other legs in assembled position in said sockets, said catch being inside the said rigidly fastened leg and socket therefor.

MORRIS RAYMOND.

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