

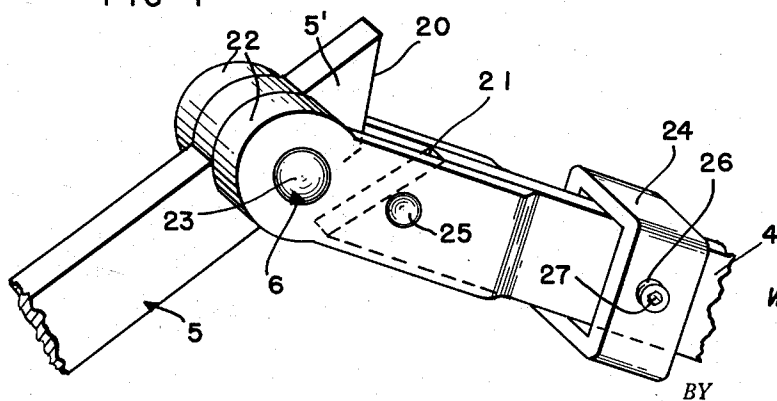
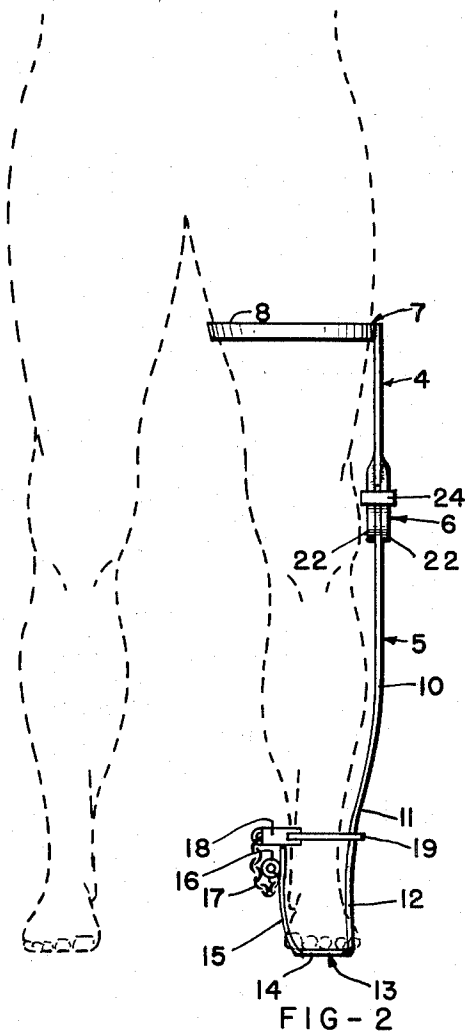
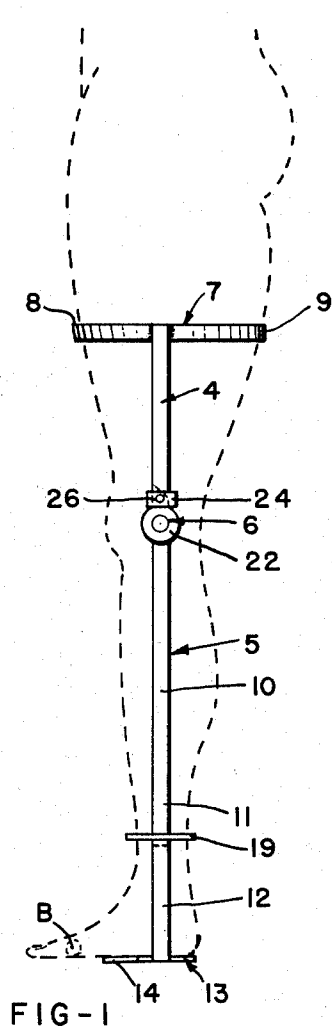
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W. BEZONA

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LEG IRON

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Wayne Bezona
INVENTOR.

INVENTOR.

BY

Henry L. Fish
Attorney

Attorney

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2,724,256

LEG IRON

Wayne Bezona, Spokane, Wash.

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3 Claims. (Cl. 70—16)

This invention relates to a fetter or gyve and more particularly to a leg iron.

One object of the invention lies in the provision of a leg iron which is adapted to be worn by a prisoner upon his leg and which will stiffen the knee and ankle joints and prevent the person from running.

Another object of the invention lies in the provision of a leg iron with a hinge joint to be positioned adjacent the knee joint of the wearer to permit bending of the knee when necessary to sit in close quarters.

Another object of the invention lies in the provision of a releasable collar on the leg iron adapted to secure the hinge joint with the sections in axial alignment.

Another object of the invention is to provide a leg iron with an upper leg receiving ring, and a lower foot receiving stirrup and which has chained thereto a leg shackle or cuff for locking the device on a prisoner's leg.

Another object of the invention lies in the provision of a leg iron which may be worn with comfort, as long as one does not attempt to bend the knee as when attempting to run or fight.

Another object of the invention lies in the provision of a leg iron which is inexpensive to manufacture and easy to apply and remove.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings, forming a part of this specification, and in which like numerals are employed to designate like parts,

Figure 1 is a side elevation of my improved leg iron showing it applied to the leg of a person,

Figure 2 is a front elevation of the same, and,

Figure 3 is a fragmentary perspective view of the hinge joint released and broken.

Referring now to the drawings in detail, I have provided upper and lower sections 4 and 5, respectively, which are pivotally secured together at 6. The upper section 4 has secured on the inner side face and at its upper end, a horizontally disposed leg encircling band 7 which is formed from flat bar stock and is partially shaped to conform to the vertical contour of the leg with the front and side of the band opposed to the section 4 disposed at an angle giving the band an outwardly flared upper edge 8 on said front and side. The band is formed with a vertically disposed rear portion 9 for positioning at the back on the wearer's leg.

If a prisoner attempts to run while wearing the leg iron, the natural tendency to bend the leg when the foot contacts the ground, will cause the rear portion 9 to press on the tendons at the back of the leg causing great discomfort, but as long as one walks at a normal pace, keeping the leg stiff, there is no discomfort.

The leg iron is of such length as to position the leg encircling band 7 substantially midway the distance between the knee joint and the hip joint of an average size adult, and actual tests have proven that the device will then be usable on the legs of persons ranging in size

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from that of an average 15 year old to an adult much over six feet tall. This provides a great latitude of use of the device and does not require vertical adjustment to make it practical.

5 The lower section 5 is shaped with an inward arc 10 commencing substantially midway its length and then downwardly, the arc slowly reverses, 11, and terminates in a substantially vertical portion 12 commencing adjacent the ankle bone of a person wearing the device.

10 Welded on the inner side at its lower end, section 5 has a foot rest or plate 13, disposed in a horizontal plane, and which when viewed in plan appears to be shaped to conform to that of an insole for a shoe. The forward portion 14 of the plate 13 terminates just short of the ball joint B of the great toe and this causes the arch of the foot to be stiff and further hinders use of the foot when attempting to run.

Opposed to the section 5 plate 13 is provided with an outwardly bowed and upwardly extending bar 15 20 which terminates upwardly at a point approximately 3 inches above the inner ankle bone. An eye 16 is secured to the outer side face of bar 5 adjacent its upper end, and a short length of chain 17 secures a shackle 18 of the type having the usual pivotal jaw 19 and of the type being provided with a lock and key to releasably secure the jaw about a leg and the lower section 5, as shown in Figures 1 and 2.

The pivotal joint 6 is positioned adjacent the knee joint of the wearer, and the lower section 5 is provided with an upper portion 5' having an end face 20 formed at a downward incline from front to back. The lower end of section 4 is formed with an angled end face 21 30 adapted to conform to face 20 when the two sections are positioned in axial alignment.

Ears 22 are welded at each side of upper section 4 and extend downwardly beyond the angled end face 21 in straddling relation to the end portion of section 5. A pivot pin 23 passes through ears 22 adjacent the ends thereof and through section 5 below the end portion 5' and which is positioned between the two ears 22 to 35 hingedly connect the two sections.

The cooperating angled faces 20 and 21 prevent the lower section from pivoting forwardly but permit its rearward movement. To lock the joint 6, I provide a substantially square collar 24 adapted to slip downwardly over the upper ends of ears 22 when the two sections are in axial alignment, and with the collar movable downwardly in restricting covering relation to the end portion 5'. One spaced ear 22 is provided with a socket 25, and collar 24 has a set bolt 26 threaded through one wall thereof and positioned to seat in said socket 25 when the collar is in its lowered locking position.

My improved leg iron is applied to the leg of a prisoner by passing the leg through band 7 and placing the foot on the stirrup defined by the elements 12, 13, 14 and 15. Shackle 18 is then locked with its jaw 19 encircling the prisoner's leg and the section 5. The joint 6 may be left flexible and the prisoner then may put his shoe on covering the saddle and his foot. The joint may then be locked stiff by means of collar 24 and then pants may be 60 donned covering the device.

A special type wrench receiving socket 27 may be supplied in set bolt 26 which will preclude its removal by a prisoner having no tools.

Having thus described my invention, I claim:

1. A leg iron comprising upper and lower sections, a leg receiving band secured to the inner side face of said upper section, said band having front and side portions angled downwardly to conform to the vertical contour of a person's leg, a vertically positioned rear portion on said band, spaced ears secured to said upper section at its lower end, a socket in one of said ears, said upper 70

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section having an angled lower end face, said lower section having an angled upper end face conforming to said lower end face when the sections are in axial alignment, said lower section being hingedly secured between said ears adjacent its upper end, an upper end portion on the lower section above the point of hinging, a vertically shiftable collar for locking said sections in axially aligned relation by encircling said ears and upper end portion in restricting covering relation, a set bolt threaded through one wall of said collar and adapted to seat in said socket to lock the collar against vertical movement, said lower section having an inwardly curved arcuate portion and a slow reverse curve terminating in a vertical portion, said inwardly curved portion commencing downwardly midway the length of said lower section, a horizontal foot plate secured at the lower end of said lower section, an outwardly curved upstanding bar secured to said foot plate, an eye on said bar, a chain secured in said eye, and a leg shackle secured to said chain and adapted to lock while encircling a leg and said lower section.

2. A leg iron comprising upper and lower sections, a leg receiving band secured to the inner side face of said upper section, said band having front and side portions angled downwardly to conform to the vertical contour of a person's leg, a vertically positioned rear portion on said band, hinge means uniting said upper and lower sections and being adapted for selective locking in axial alignment, said lower section having an inwardly curved arcuate portion and a slow reverse curve terminating in a vertical portion, said inwardly curved portion commencing downwardly midway the length of said lower section, a horizontal foot plate secured at the lower end

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of said lower section, an outwardly curved upstanding bar secured to said foot plate, an eye on said bar, a chain secured in said eye, and a leg shackle secured to said chain and adapted to lock while encircling a leg and said lower section.

3. A leg iron comprising an elongated rigid bar, a leg receiving band secured to the inner side face of said bar at its upper end, said band having front and side portions angled downwardly to conform to the vertical contour of a person's leg, a vertically positioned rear portion on said band, said bar having an inwardly curved arcuate portion and a slow reverse curve terminating in a vertical portion at its lower end, a horizontal foot plate secured at the lower end of said bar, an outwardly curved upstanding bar secured to said foot plate opposed to said first named bar, an eye on said second named bar, a chain secured in said eye, and a leg shackle secured to said chain and adapted to lock while encircling a leg and said first named bar.

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