Dec. 19, 1961 H. J. BARRECA 3,013,286

BOOT SOLE STRAIGHTENING AND CARRYING DEVICE

Filed March 16, 1959 2 Sheets-Sheet 1

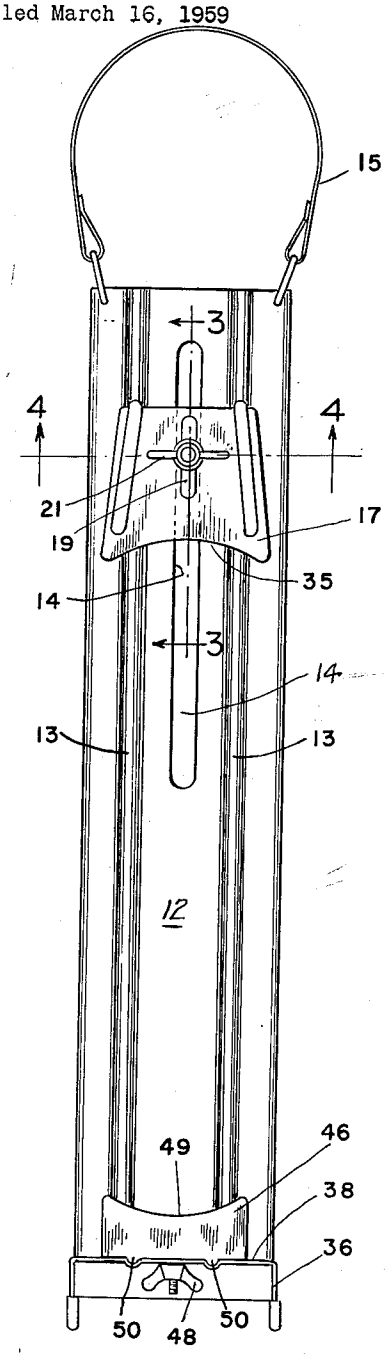


FIG. 1

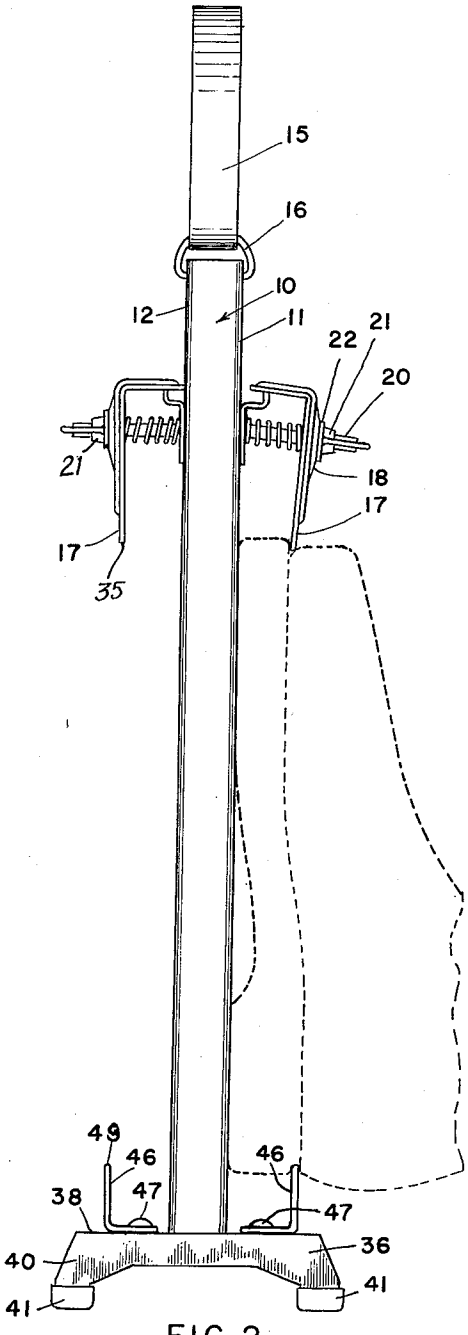


FIG. 2

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BOOT SOLE STRAIGHTENING AND CARRYING DEVICE

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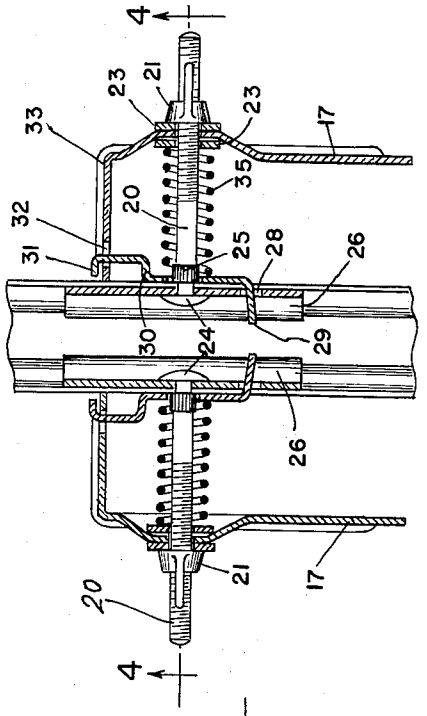


FIG. 3

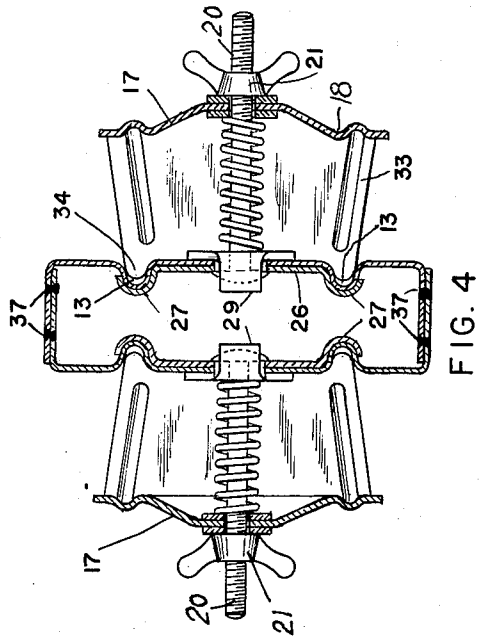


FIG. 4

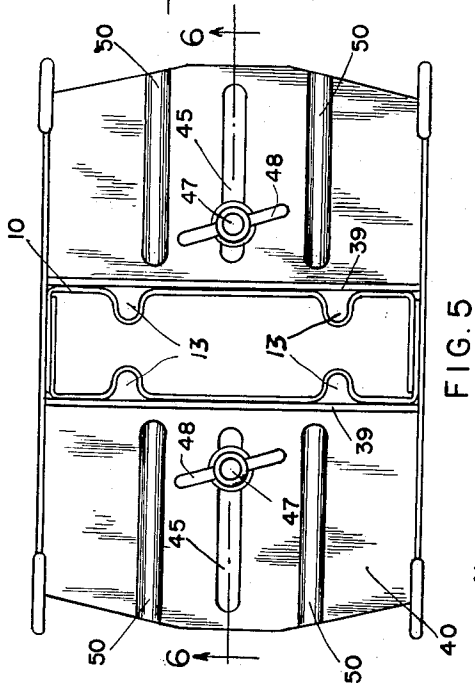


FIG. 5

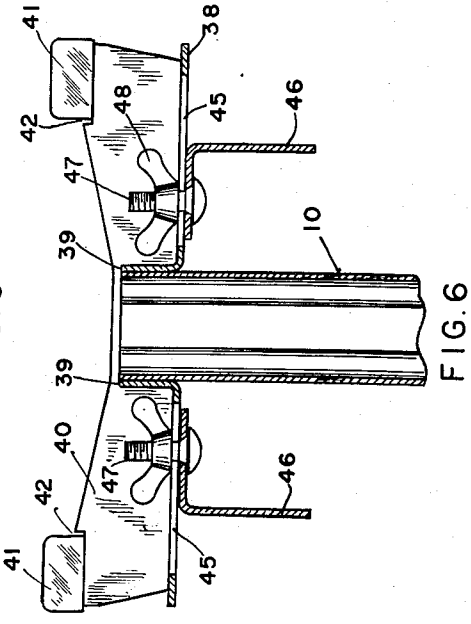


FIG. 6

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3,013,286
BOOT SOLE STRAIGHTENING AND CARRYING DEVICE

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Filed Mar. 16, 1959, Ser. No. 799,657
1 Claim. (Cl. 12—120.5)

This invention relates to a boot sole straightener and carrying device and is an improvement over the device disclosed in my application Serial No. 414,259, filed March 5, 1954 which has matured into Patent No. 2,883,688 granted April 28, 1959. The device of the above mentioned application has had singular success in the field. However, the instant invention makes specific improvements thereon in rendering the device more economical to manufacture while further simplifying its use.

As was pointed out in the above-entitled application, the device is specifically adapted to maintain the soles of ski boots straight or flat so that the boots will rest correspondingly flatly on the ski. The device applies considerable downward force upon the heels and soles of the boots so as to maintain them straight or flat during times when the boots are not in use. Further, the device serves as a carrier for the boots.

In the above mentioned application there is disclosed a heel holding portion which has been considerably simplified in the instant invention. Thus, the base of the improved device comprises a bottom platform which is secured to the bottom portion of the device as by spot welding or the like. This bottom platform is capable of permanent adjustment in respect to any particular pair of boots and is further provided with relatively soft plastic covered feet for protecting a surface on which the device rests.

The instant invention also improves the clamping apparatus in that the user will not inadvertently loosen the clamp to the extent that the clamping or gripping element becomes loosened and falls away from the body of the article.

The invention will be further understood from the following description and drawings in which:

FIGURE 1 is a side elevational view of the improved article;

FIGURE 2 is an end elevational view thereof and illustrating the carrying of a pair of boots thereby;

FIGURE 3 is an enlarged cross-sectional view as taken along the line 3—3 of FIGURE 1;

FIGURE 4 is an enlarged cross-sectional view as taken along the line 4—4 of FIGURE 1 and FIGURE 3;

FIGURE 5 is a bottom plan view of the device; and

FIGURE 6 is a cross-sectional view as taken along the line 6—6 of FIGURE 5.

The device comprises a main body **10** having opposed platforms **11** and **12** which constitute opposite faces of the main body. Body **10** is of substantially flattened hollow tubular formation being formed of two opposing halves welded together at **37** as illustrated in FIGURE 4. Each platform **11** and **12** is formed with parallel, longitudinal, concavo-convex grooves **13** in which slide the feet of the longitudinally adjustable clamping members as will hereinafter be made clear. Each platform is also provided with a central longitudinal slot **14** through which the clamping bolt extends and in respect to which it is adjustable as will hereinafter be made clear.

For carrying purposes, the article is provided with a flexible strap **15** which may be of plastic, canvas, leather or the like and which is connected to the body of the article as by rings **16**.

The clamping members are formed with a head or top plate **17** which is shown as substantially planar apart

from its central dome **18**. Dome **18** is formed with a longitudinal slot **19** in which is slidably disposed a threaded bolt **20**. Threaded over bolt **20** is wing nut **21** below which is washer **22** which rests against the margins of slot **19**. An underlying washer **23** rests against the inside margins of slot **19**.

The base of bolt **20**, adjacent to its head **24**, is formed with a vertically knurled and slightly diametrically enlarged collar **25**. This permits simplified fixed engagement of bolt **20** with the slidable retaining plate **26** disposed against the underside of each platform. Retaining plate **26** is formed with edge channels **27** which ride upon the lower convex surfaces of the concavo-convex grooves **13**. Retaining plate **26** is formed with a slot **28** which receives the front lip **29** of tongue **30**. Tongue **30** is disposed loosely around the neck of bolt **20**. Its aforementioned lip **29** penetrates longitudinal, length adjusting slot **14** and enters into horizontal slot **28** of the retaining plate **26** so as to cause the retaining plate **26** to slide together with the clamping members.

Rear lip **31** of tongue **30** enters a horizontal slot **32** in the rearward skirt **33** which is the rear portion of the clamp member being integral with top plate **17** thereof. The lower edge of skirt **33** is formed with opposed feet **34** which ride in the grooves **13**.

A coil spring **35** surrounds the threaded body of bolt **20** between the washer **23** and the tongue **30**. The purpose of the spring is to maintain the vertically adjustable top plate **17** in a normally upward position except as urged downwardly by the wing nut **21**. A further function of the spring **35** is, in cooperation with tongue **30**, to maintain the entire clamping member in a substantially fixed position in relation to slot **14**. This position is said to be "fixed" since the clamping member will remain in an adjusted longitudinal position although it can be manually slid in slot **14** against the action of spring **35** which is not of sufficient strength to impede manually controlled sliding movement of the clamping member in slot **14**.

The advantageous results of employing the threaded bolt **20** in cooperation with the wing nut **21** is that the bolt remains stationary while the wing nut can apply considerable force to clamp the plate **17** over the front portion of the slot of the boot as illustrated in FIGURE 2. Generally, the boot is applied in place and the clamping member is slid downwardly in slot **14** until the concave lip **35** of the top plate **17** engages the sole as illustrated in FIGURE 2. Thereafter the wing nut **21** is manually screwed forcefully downwardly to provide the clamping pressure. When the boot is to be released, the wing nut is loosened and the clamping member is then slid upwardly away from the boot. During such loosening the user will note the end of bolt **20** and will not unscrew the wing nut until it passes the end of the bolt. It will be observed that this is easily prevented since the user can see the end of the bolt relative to the wing nut.

This invention further includes the unitary, transverse base **36** which is connected to the lower end of the body **10** as by spot welding. Base **36** is formed with an upper plate **38** which is provided with a central opening formed by downwardly extending parallel flanges **39** which are integral with the upper plate **38**. As illustrated in FIGURE 6, the lower portion of body **10** is inserted into the space defined by the parallel flanges **39** where it may be welded thereto so that the horizontal base extends laterally planarly on both sides of the body **10**. The sides **40** of base **36** terminate in corner feet which are embraced by resilient plastic shoes **41**. Thus, the feet are defined in part by vertical slots **42** formed in sides **40** so that the shoes, which are simply plastic

sleeves open at one end thereof to admit the feet, are deposited over such feet. Inasmuch as the device is generally made of metal and may be sharp in places, and the boots being quite heavy, the effect of shoes **41** is to protect a surface upon which the device rests.

The upper plate **38** of base **36** is formed with slots **45**. Angle brackets **46**, which serve as heel clamping members, are formed with bottom slots to receive bolts **47**. Bolts **47** are slidably received in slots **45** and are tightened in respect thereto as by wing nuts **48**. Thus, the angle brackets **46** may be slid inwardly or outwardly relative to body **10** in accordance with the heel size of the boots as illustrated in FIGURE 2. This is a permanent adjustment for any particular pair of boots. In other words, brackets **46** will be slid outwardly in slots **45** in accordance with the height of the heel and will then be tightened. Thereafter the heel of the boot need only be installed in place as illustrated in FIGURE 2 while the clamp top plate **17** is brought downwardly and tigtened to retain the entire boot in place.

The top edge **49** of the bracket **46** is preferably concave as illustrated in FIGURE 1 so as to snugly embrace the top of the heel. In adition, the bottom section of the bracket **46** is formed with feet **50** which ride in grooves formed in the upper plate **38** on both sides of the central slot **45** as illustrated in FIGURE 1. As above stated, the brackets **46** are adjusted on each side of the body **10** in accordance with the height of the heel of the boots whereupon the nuts **48** are tightened.

The bottom assembly of the article is very simple relative to any prior devices. It is only necessary to slip the base **36** to the body and weld it in place. The brackets or clamps **46**, after having been once set by the user, need not be thereafter adjusted. They are fixed in place on base **36** since the top adjustment of the clamp

17 is all that is required to accommodate the length of the boot.

There has been shown what is now considered a preferred embodiment of the invention but it is obvious that changes and omissions may be made without departing from its spirit.

What is claimed is:

A boot sole straightener and carrying device comprising a pair of opposed platforms each respectively adapted to grip one of a pair of boots and jointly forming an elongated body, a pair of opposed clamps on each of said platforms for engaging a boot at its extreme front and rear portions, at least one clamp of each pair of clamps being longitudinally adjustable in accordance with the length of the boots to be gripped, the other clamp of each pair being slidably adjustable in accordance with the height of the heel of the boots, means to lock said other clamps in fixed adjusted position, a base embracing the lower end of said body and extending laterally planarly on both sides of said body, said other clamps being mounted on the upper surface of said base, and side walls on said base, each of said side walls being formed with one vertical slot defining corner feet, and relatively soft shoes slid into the slots and covering said feet so as to prevent marring of a surface upon which the device rests.

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