No. 637,900. Patented Nov. 28, 1899.

T. SMITH.

BOOT OR SHOE ATTACHMENT.

(Application filed Dec. 24, 1897.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

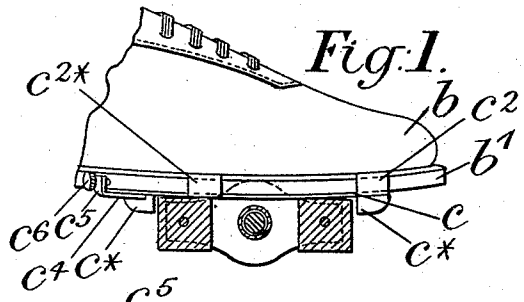


Fig. 2.

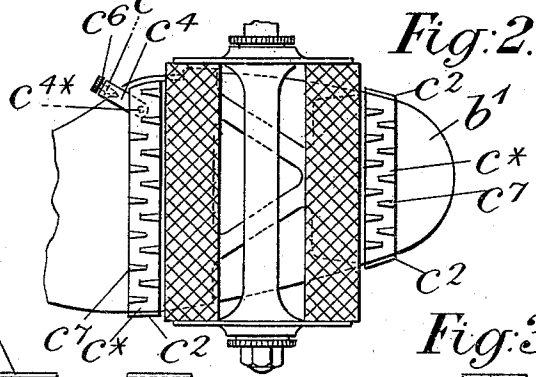


Fig. 3.

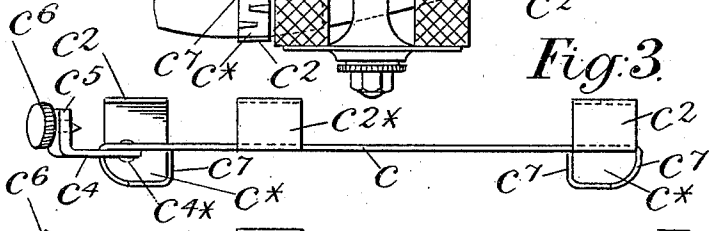
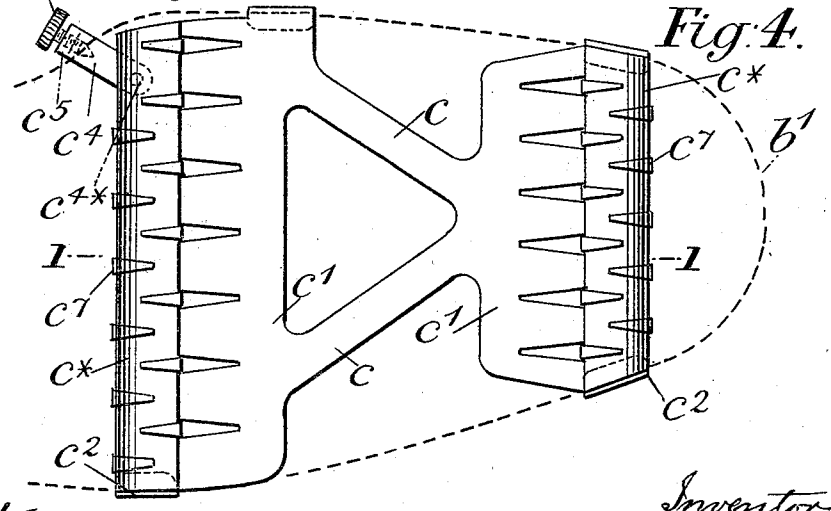


Fig. 4.



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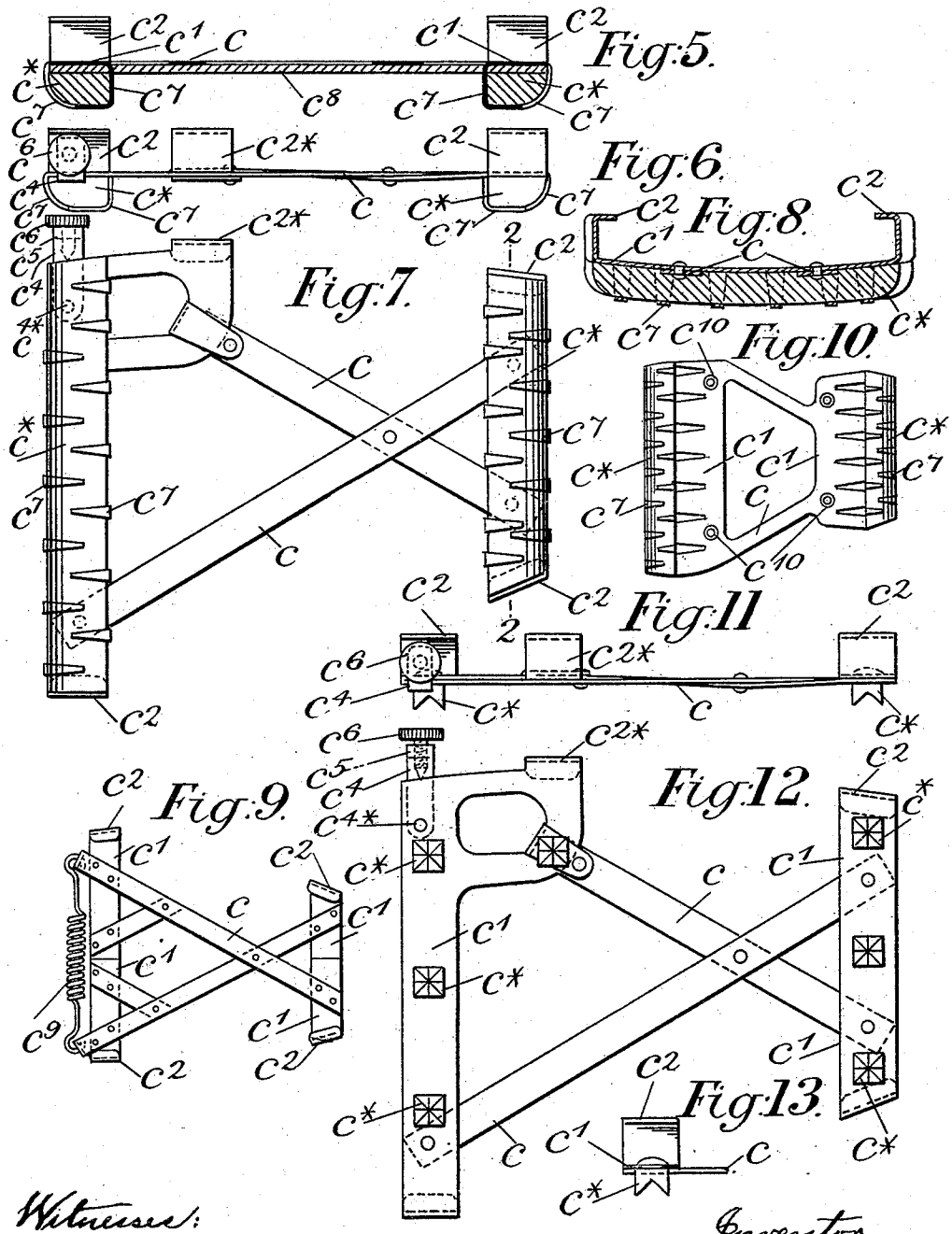
No. 637,900. Patented Nov. 28, 1899.

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BOOT OR SHOE ATTACHMENT.

(Application filed Dec. 24, 1897.)

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UNITED STATES PATENT OFFICE.

TURBERVILLE SMITH, OF LONDON, ENGLAND.

BOOT OR SHOE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 637,900, dated November 28, 1899.

Application filed December 24, 1897. Serial No. 663,313. (No model.)

To all whom it may concern:

Be it known that I, TURBERVILLE SMITH, gentleman, a subject of the Queen of Great Britain, residing at 1 Boyle street, Regent street, London, in the county of Middlesex, England, have invented a new or Improved Boot or Shoe Attachment, of which the following is a specification, reference being had to the drawings hereunto annexed and to the letters marked thereon.

The invention relates to a new or improved device applicable to boots or shoes for rendering the same more suitable for cycling, golfing, cricketing, or other sports.

The primary object of the present invention is to obtain a simple attachment to an ordinary walking boot or shoe, which is adapted to be instantaneously fixed in position without removing the boots or the like from the feet and which in one form will prevent the same slipping with relation to the pedals of a cycle when the wearer is cycling and in another form will prevent the boots or the like slipping with relation to the ground when the wearer is golfing, cricketing, or taking part in like exercises.

In the accompanying drawings, Figure 1 is a side view representing the device applied to a boot or shoe and engaging the pedal of a cycle. Fig. 2 is an under side view thereof. Fig. 3 is a side elevation of the device separately. Fig. 4 is an under side view thereof, the outline of the boot being indicated by a dotted line. Fig. 5 is a longitudinal section taken on the line 1 1 of Fig. 4, representing a slight modification. Fig. 6 is a side elevation representing a modified construction of device. Fig. 7 is an under side view thereof. Fig. 8 is a vertical transverse section taken on the line 2 2 of Fig. 7. Fig. 9 is a plan or top view representing a slight modification in the means of fastening the device to the boot or shoe. Fig. 10 is an under side view representing a further modification in the means of fastening the device to the boot or shoe. Fig. 11 is a side elevation representing a device designed for playing golf and similar games. Fig. 12 is an under side view thereof, and Fig. 13 is a detail view of part thereof.

In the several figures, in which like parts are indicated by similar letters of reference, Figs. 1, 2, 9, and 10 are drawn to a reduced scale with respect to the other figures of the drawings.

Referring to Figs. 1 to 4, *a* represents a cycle-pedal, *b* represents a boot or shoe, and *c* represents the attachment which forms the subject of the present invention. The attachment consists of a base-plate or frame *c*, preferably of skeleton form, as represented at Fig. 4, or it might be solid, which is stamped out of a sheet of mild steel or other suitable metal or material. The base-plate or frame *c*, which is approximately of the width of the boot or shoe, is shaped to the sole thereof according to whether it is to be applied to a right or left boot or the like, while the examples given in the drawings are designed to be applied to left boots. The frame or base-plate is at its ends formed of cross-bars or platforms c', which lie transversely across the sole of the boot or shoe, and the front one of these cross-bars c' is furnished with clips or hooks c^2, adapted to slide upon and engage the sole b' of the boot *b* at the welt, as represented at Figs. 1 and 2, and the rear one of these cross-bars c' is at one end furnished with a similar clip or hook c^2, while a fourth clip or hook c^{2*} is formed upon a bracket or offset c^3 upon the rear cross-bar c' at the opposite end thereof, and which clip c^{2*} is arranged so that it occupies a position at or near, but not rearwardly, beyond the widest part of the sole of the boot. That end of the rear cross-bar c' adjacent to the clip c^{2*} is provided with a short arm c^4 by one end horizontally pivoted at c^{4*} to the cross-bars c' and at the other end provided with a vertical lug or flange c^5, apertured and threaded to receive a set-screw c^6. By this arrangement of parts the base-plate or frame *c* is adapted to be slid into position upon the sole b' of the boot *b*, the peculiar position of the clip c^{2*}, carried by the bracket or offset c^3, enabling the same to engage the sole b' at or at about the widest part of the boot and upon the inner side thereof, beyond which point the sole narrows rearwardly, so that it would be impossible if a clip were placed on that end of the rear cross-bar to slide the device into position and yet obtain a firm grip of the sole. When the base-plate or frame *c* is slid into position in the manner hereinbefore described, the pivotal arm c^4 is turned until the

set-screw c^6 occupies a suitable position to lock the device against endwise movement, when the set-screw c^6 is screwed home until it obtains the required grip of the sole b' of the boot, and the device is thus securely locked against accidental displacement. The end cross-bars c' of the base-plate or frame c and the clips or hooks c^2 c^{3*} are preferably formed of mild steel or like comparatively soft, but tough, metal, so that the cross-bars c' may be readily bent to the shape of the bottom of the sole b', and the clips or hooks c^2 c^{2*} may be readily shaped to the form and thickness of the sole b', and thus the necessity for keeping in stock a great variety of sizes will be avoided. In this example the device is designed to enable the boot b of a cyclist to obtain a firm grip of the pedal a, and for this purpose bars or stops c^*, consisting of thick strips of vulcanized india-rubber or other suitable material, are placed beneath the end cross-bars c' and there fixed by any suitable means, but preferably by tongues c^7, formed in the stamping out of the metal base-plate c and cross-bars c' and turned over or bent around the india-rubber bars or stops c^*.

The device hereinbefore described when in use is fixed in position upon the sole b' of the boot or shoe b in the manner hereinbefore described, when the pedal a will naturally occupy a position between the two bars or stops c, and thus any danger of the foot slipping off the pedal will be obviated.

In the example given at Fig. 5 the device is assumed to be substantially the same as that hereinbefore described, but in this case a sheet of leather, india-rubber, or other suitable material c^8 is fixed beneath the base-plate or frame c by placing the ends thereof between the cross-bars c' and stop-bars c^*, and the object of this piece of rubber or the like c^8 is to produce a cushioning effect and assist the device in obtaining a firm grip of the pedal a.

In the example given at Figs. 6, 7, and 8 the device is similar to that hereinbefore shown and described with respect to Figs. 1 to 4, except that instead of the entire frame being stamped out of sheet metal the cross-bars c', clips c^2 c^{2*}, and bracket c^3 are thus formed, and the cross-bars c' are connected together by diagonally-arranged bars or strips c of spring-steel, which are riveted to the cross-bars c' and also riveted together at the point of crossing.

In the example given at Fig. 9 the device is arranged to spring onto the sole of the boot, and for this purpose the cross-bars c' are divided longitudinally of the frame, the connecting strips or bars c are pivotally connected together at c'^*, and a spring c^9, hooking onto extensions of the bars c, forces the divided parts together, while in this case the bracket c^3 and pivotal arm c^4 are dispensed with and a fourth clip c^2 is formed upon the rear cross-bar c', so as to engage the sole b' of the boot at a point to the rear of its greatest width.

In the example given at Fig. 10 the base-plate or frame c is assumed to be stamped out of sheet metal in a similar manner to that represented at Figs. 1 to 4; but in this case the clips c^2 and coacting devices are dispensed with and the base-plate or frame c is provided with holes c^{10}, adapted to receive ordinary screws, by means of which the device may be permanently fixed to the sole of a boot or shoe.

In the example given at Figs. 11, 12, and 13 the device is similar in construction to that hereinbefore shown and described with respect to Fig. 7; but in this case it is designed to prevent the feet of the wearer slipping with relation to the ground, and for this purpose it is furnished with nails or spikes c^* in lieu of the rubber stop-bars hereinbefore described in order that it may obtain a firm grip of the ground.

It will be obvious that the device is capable of being further modified without departing from the spirit of the invention.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is—

A boot attachment comprising a base-plate or frame provided with side clips or hooks adapted to engage the sole of the boot, and arranged two at the front of the device, one at the rear, and another in a suitable position between the front and rear, stop bars or spikes fixed to the under side of the base-plate or frame and an arm swiveled to the rear extremity of the base-plate or frame and provided with a set-screw for engaging the sole of the boot and preventing endwise movement of the device; substantially as herein shown and described and for the purpose stated.

TURBERVILLE SMITH.

Witnesses:
C. MELBOURNE WHITE,
C. H. WHITE.