

July 5, 1938.

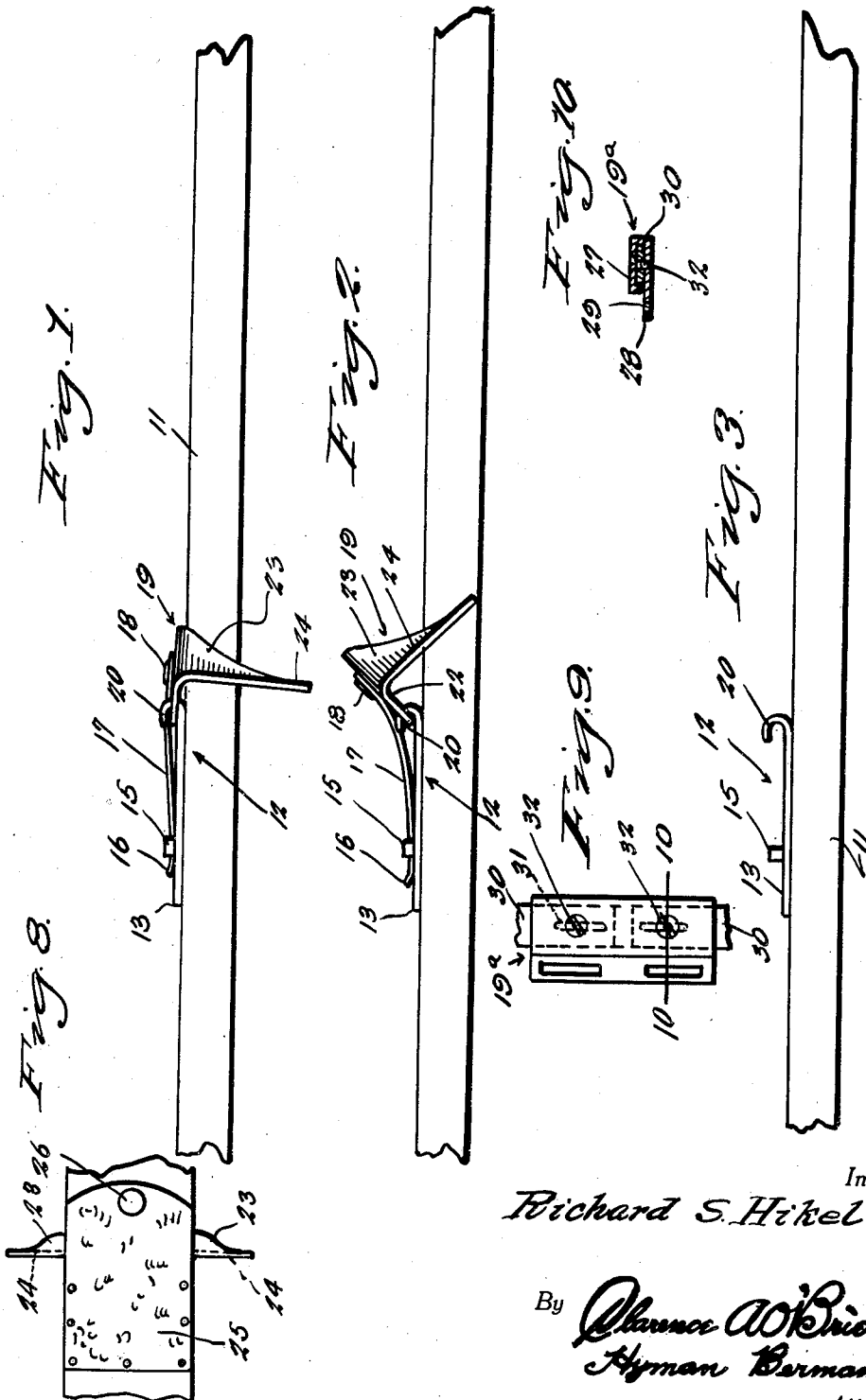
R. S. HIKE

2,122,718

TRACTION CLEAT FOR SKIS

Filed Feb. 5, 1937

2 Sheets-Sheet 1



Inventor

Richard S. Hikel

By

Clarence A. O'Brien
Hyman Berman

Attorneys

July 5, 1938.

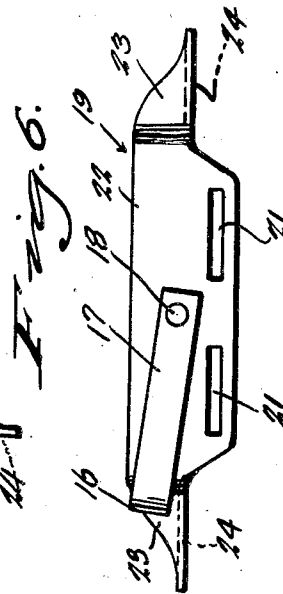
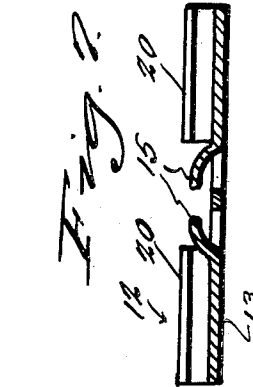
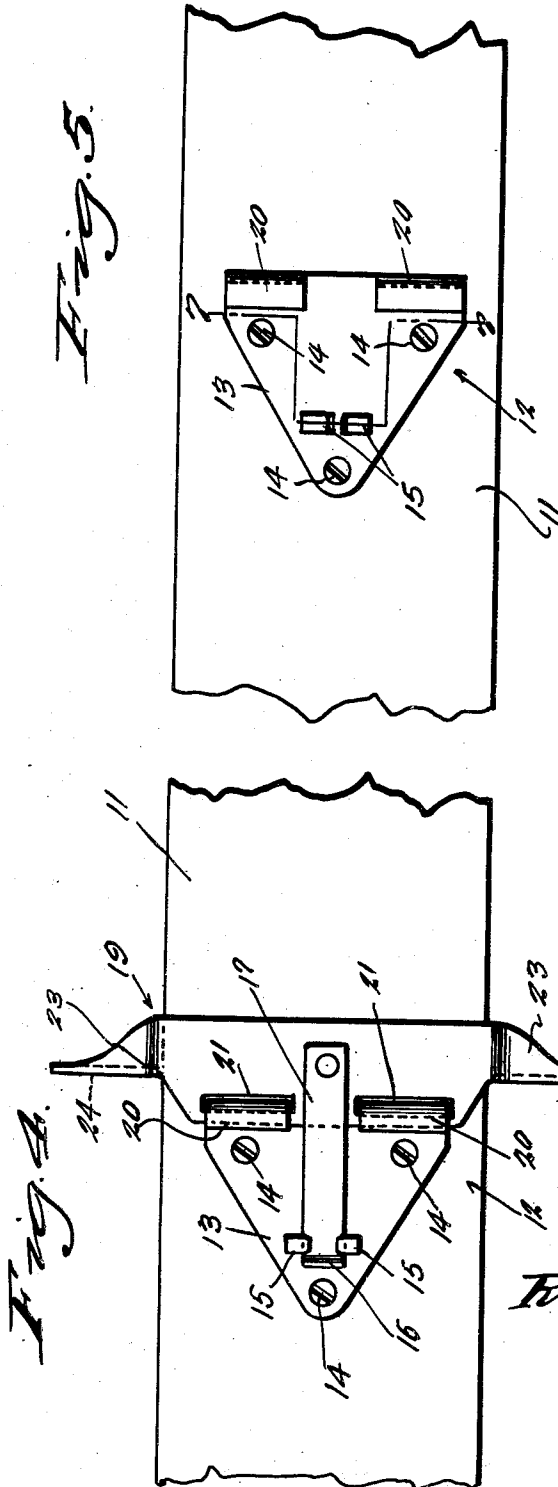
R. S. HIKEL

2,122,718

TRACTION CLEAT FOR SKIS

Filed Feb. 5, 1937

2 Sheets-Sheet 2



Inventor
Richard S. Hikel

By *Chas. A. O'Brien*
Hyman Berman

Attorneys

UNITED STATES PATENT OFFICE

2,122,718

TRACTION CLEAT FOR SKIS

Richard S. Hikel, Plymouth, N. H.

Application February 5, 1937, Serial No. 124,322

2 Claims. (Cl. 280—11.13)

This invention relates to improvements in traction cleats and attaching and retention means therefor applicable to a so-called conventional ski, and the purpose of the invention is to provide a double calk-equipped check and traction device to facilitate hill climbing while on skis.

Other objects and advantages will become more readily apparent from the following description and drawings.

In the drawings, wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is an elevational view of a fragmentary portion of a ski with the improved traction cleat or check means associated therewith, the means being disposed in its usual operating position.

Figure 2 is a view like Figure 1 showing the double-pronged or calk-carrying cleat elevated to a non-traction position.

Figure 3 is a view with the detachable cleat removed showing the anchoring fixture or bracket.

Figure 4 is a plan view of Figure 1.

Figure 5 is a plan view of Figure 3.

Figure 6 is a detail view of the detachable double-prong or calk unit.

Figure 7 is a section taken on the irregular line 7—7 of Figure 5.

Figure 8 is a fragmentary view of a modification depicting a protective shield or cover sometimes used in connection with the invention.

Figure 9 is a fragmentary top plan of a modification in the cleat unit construction.

Figure 10 is a cross-section on the line 10—10 of Figure 9.

In the drawings the ski is denoted by the numeral 11. As a permanent part of this, I provide an adapter or attaching bracket or fixture denoted by the numeral 12. Although this may vary in configuration, it is preferably substantially triangular in form, that is, embodies a triangular plate 13 secured by screws or similar fastenings 14. Adjacent the apex portion, I have found it expedient and practicable to strike out tongues 15 from the plate, and these are bent to form retention elements or hooks for the adjacent end portion 16 of the flat tensioning spring 17. The opposite end of this spring is riveted or pivoted as at 18 to the central portion of the calk-equipped cleat or check unit 19. It will be observed in this connection that the anchoring or attaching plate 13 is provided with a pair of curled extensions forming what may be conveniently called keeper hooks as at 20, and these are designed to inter-

lock with the slots 21 on the body portion or plate 22 of said check unit 19. The opposite ends of this unit are twisted laterally, as indicated at 23, and then bent into wing-like extensions 24, which function as anti-slipping teeth or calks, as the case may be.

It is evident that this spring-pressed, detachable calk unit 19 is susceptible of swinging from the position shown in Figure 1 to the lifted position shown in Figure 2, at which time the calks are adapted to glide over snow and ice covered surfaces.

The gist of the invention, so far described, is in the provision of an adapter or attaching unit or plate 12 characterized by features to accommodate the bodily attachable and removable cleat unit 19, this having means whereby a hinge connection may be provided and including spring means for maintaining it under constant yieldable stress. Hence, under the action of the spring, the so-called calks are pressed downwardly in relation to the bottom of the ski, whereby they are in position to check retrograde sliding of the ski while the wearer is ascending a steep incline. Due to the hinged spring action, however, it is possible for the calks to rise up and glide over the surface as a forward stroke of the ski is made, whereby to permit the desired safe and reliable climbing action to be assured.

In most instances the simple hinged spring-pressed arrangement depicted to advantage in Figure 4 will serve satisfactorily. In this connection, however, it might be stated that under certain conditions, it is well to provide a suitable jacket or cover 25 of leather, canvas, or the like, as seen for example in Figure 8. This may be of any appropriate construction and suitably mounted and provided with a snap fastener 26. Its function is to overlie the attaching bracket and hinge and spring means to prevent accumulation of snow and ice so as to allow the calk unit 19 to be slipped off whenever necessary or desired. In accomplishing this removable action, it is evident that the part 19 can be removed while in downward flight or before the take-off. With the spring and claw element 15, the application is simple. For example, by swinging the leaf-like plate 22 up on its hinge connection, the spring 17 can slide on through and beyond the hook 15, allowing the slots 21 to be disengaged from the keeper hook 20. Then the spring can be slid back and readily disconnected from the hooks 15.

In the arrangement seen in Figure 9, the unit 19a is slightly different. The main distinction

here is in providing a sheath or casing 27 having a flange 28 with slots 29 to engage the hooks 20. The calks in this arrangement are independent and the shank portions 30 are slidably maintained in the sheath by way of the slots 31 and the connecting screws or bolts 32. The purpose here is to provide adjustable cleats susceptible of being adjusted in relation to varying width skis.

It is thought that the description taken in connection with the drawings will enable a clear understanding of the invention to be had. Therefore, a more lengthy description is thought unnecessary.

While the preferred embodiment of the invention has been shown and described, it will be understood that minor changes coming within the field of invention claimed may be resorted to if desired.

I claim:

1. A traction cleat for a ski comprising a plate like attaching member secured to the top of the ski, a calk member comprising a flat elongated plate hinged at one edge to an edge of the mem-

ber for vertical swinging movement and to extend lengthwise across the top of the ski and provided with a pair of tooth like end calks depending therefrom upon opposite sides of the ski, respectively, said plate being limited as to downward movement by engagement with the top of the ski, and a leaf spring secured at one end to said plate with its other end slidably bearing on top of said member.

2. A traction cleat for a ski comprising a plate like attaching member secured to the top of the ski, a calk member comprising a flat elongated plate hinged at one edge to an edge of the member for vertical swinging movement and to extend lengthwise across the top of the ski and provided with a pair of tooth like end calks depending therefrom upon opposite sides of the ski, respectively, a leaf spring secured at one end to said plate with its other end sliding on top of said member during swinging of the plate, and a pair of guide lugs on said member overlying opposite edges of the spring.

RICHARD S. HIKEL.