Final Diploma

Patent Examination Board

FD3 Amendment of Specifications

Wednesday 16 October 2019 10:00 to 13:00

INSTRUCTIONS TO CANDIDATES

1. The whole assessment task is to be attempted.
2. The marks to be awarded are given at the end of the assessment task.
3. The total number of marks available for this paper is 100.
4. Start each part of your answer on a new sheet of paper.
5. Write your answers on alternate lines.
6. Do not state your name anywhere in the answers.
7. Write clearly, as examiners cannot award marks to answer scripts that cannot be read.
8. The scripts will be photocopied for marking purposes.
   a) Use only **black ink**.
   b) Write on one side of the paper only.
   c) Write within the printed margins.
   d) Do not use highlighter pens on your answer script.
9. Instructions on what to do at the end of the examination are on the Candidate Cover Sheet.
10. Any candidate script removed from the examination room will not be marked.
11. This question paper consists of **22 sheets**, including this sheet, and comprises:

    Assessment task (1 sheet)
    Client letter (1 sheet)
    Document A Examination Report (1 sheet)
    Document B Client application GB 1611111.6 (9 sheets, including 2 sheets of drawings)
    Document C Prior art reference D1 – US 3,333,333 (3 sheets, including 1 sheet of drawings)
    Document D Prior art reference D2 – US 4,321,321 (4 sheets, including 1 sheet of drawings)
    Document E A spare set of Claims of the patent application GB 1611111.6 for you to annotate and include in your answer if you wish (2 sheets).

Assessment task

You have received the letter and documents listed on the Instructions to Candidate sheet regarding United Kingdom patent application number GB 1611111.6, which has been filed at the UK Intellectual Property Office with no claim to priority.

Your task is to prepare:

1. **a letter to the UK Intellectual Property Office in response to the Examination Report;**
2. **a set of amended claims, if considered necessary;**
3. **notes on which you would base advice to your client in which you:**
   - i. **explain the actions you have taken;**
   - ii. **provide full reasoning for your actions;**
   - iii. **outline future actions, if any, that your client could take to secure full protection of its commercial interests.**

Your advice should take into account that further information may be required.

Your notes should only relate to the invention(s) outlined in the client's correspondence to you.

Your notes should be directed to patent matters only.

Note the following:

a) You are NOT required to make any amendments to the description of the client's patent application.

b) You should accept the facts given to you and base your answer on those facts.

c) You should not make use of any other special knowledge that you may have of the subject matter concerned.

d) You should assume that the prior art referred to is complete.

e) You should identify clearly any amended claim set and/or divisional claim(s).

Allocation of Marks

Letter: 35 marks
Claims: 36 marks
Notes: 29 marks
Total: 100 marks

Client letter

Hit the Heights Ltd

Shield Patent Attorneys

Dear Mrs Shield,

I am pleased to say that our new item of climbing equipment has proven quite successful in trials, so I am hoping we will get a patent for it. We have now looked at the report from the Patent Office that you sent and hope that you can overcome the difficulties.

The way we see it, the trefoil device D1 is, I suppose, a wedge, but it has a quite different shape to ours and does not seem to give the three-point contact that ours does – if it did, it looks as though the rope would rub against the rock, which is obviously undesirable. In ours, the rope is protected by being inside the chock. The Holdstone document D2, though of an ingenious shape, is basically of the known kind where the wedge shape(s) have to match the rock taper, albeit with three different options. These seem to me to be quite different ways of designing a chock. True, Holdstone does protect the rope in a similar way to ours, but I don't see that the trefoil design is compatible with it. At any rate, no doubt you can come up with a wording for claim 1 that satisfies the Examiner.

As to what the Examiner says about claim 4, I think we were hedging our bets at the time of filing as to what the invention was, but we will be happy to run with claim 1 in whatever form you can get granted.

I hope you can get us broad protection as I fear competitors could easily step into this market. Maybe you could send me a draft to check before sending it to the Examiner.

Yours sincerely,

Leo Capitan

Intellectual
Property
Office

Your ref:		Examiner:	M Blanc
Application no.	1611111.6	Tel:	01633 816666
Applicant	Hit the Heights Ltd	Date of report:	15 July 2019
Latest date for reply:	15 November 2019	Page	1/1

Patents Act 1977

Examination report under Section 18(3)

Basis of the examination

1. The examination has been carried out on the basis of the application as filed.

Novelty

2. The invention as claimed in claim 1 is not new in view of D1 (US 3,333,333). D1 shows a chock 14 which can be described as wedge-shaped (Fig. 3), having four side faces (22, 24), with opposite side faces (e.g. arm 22c with its end 23, rounded portion 25) being convex and concave respectively.

Inventive Step

3. Even if D1 is not considered to show a "wedge", the general shape is similar and the function is similar, so an inventive difference is hard to discern. Also, the device shown in D2 (US 4,321,321) has opposing faces that are curved, albeit they are all convex. It would appear obvious to apply such an arrangement to convex/concave pairings, as in claim 3.

4. Claim 2 appears to be saying no more than that the chock is wedge-shaped, which is not new. Claim 4 is in the same vein. As to the second part of claim 2, both D1 and D2 have passages for a rope to enter and leave the chock.

5. Claim 5 is obvious in view of D2, which has such an internal opening 20. Claim 6 is trivial since all the documents concern climbing chocks. Claims 7 and 8 would seem to be obvious design choices.

Conciseness, Clarity and Support

6. Claim 1 does not describe the invention clearly: any wedge-shaped body can be placed in a crack in a rock; some relation to a rope would appear to be required, as this appears to be the function of the device.

7. There is no antecedent for the "line" in claim 2.

8. There are two independent claims in the same category, namely claims 1 and 4, with a considerable overlap (especially when claim 2 is taken into account) and a resulting lack of conciseness (MoPP 14.140). Amendment appears necessary. By way of preliminary view of claim 4, it does not appear inventive to define certain apparently arbitrary spatial relationships of various faces of a wedge.

Client application

GB 1611111.6

CLIMBING AID

This invention relates to climbing chocks. Chocks, also called nuts, are simple passive devices used to jam into crevices in rocks to support a line or “loop sling”, from which a climber’s safety rope may be supported. They do less damage to the rock than the older pitons driven in by a hammer.

Of the many forms of climbing chocks used by climbers, the simple wedge shape has long been regarded as particularly effective. Wedge-shaped chocks are provided in a variety of sizes but the taper angle tends to be constant to fit the taper of a crack in a rock structure that experience teaches as likely to be encountered. In any situation where the taper of a crack is substantially the same as the taper of the wedge-shaped chock, the wedge shape is ideal in providing the greatest holding power, but cracks in rock do not always oblige. Normally, a particular size of chock can be fitted into an appropriate crack, but there is point contact between the chock and the crack wall because of the almost inevitable irregularities that will be present. This does not detract seriously from the effectiveness of the wedge shape, which still cooperates with the general taper of the crack, usually to provide a number of points of contact.

The object of the present invention is to improve the traditional wedge-shaped chock to render it more effective in an irregular but generally tapered crack whilst maintaining a high degree of effectiveness in a smooth tapered crack.

According to the present invention, a climbing chock comprises a generally wedge-shaped body, two opposite side faces of which are respectively of concave and convex configuration. Thus, the concave face allows the chock of the invention to curve round small irregularities in the wall of a crack to ensure two-point contact, and the convex face ensures the third point of contact irrespective of the actual angle of taper of the crack.

Preferably, the end (i.e. upper and lower) faces of the chock are plane and parallel and are of rectangular shape to provide the chock with wider and narrower sides. The other two opposite sides of the chock may also be respectively concave and convex, but it is preferred that they are plane tapered faces.

The body will generally have a longitudinal passageway means between its end faces,

extending in the direction and within the confines of the said side faces; through this passageway means a line is passed up over a solid part of the body and back down again. Force applied along this line urges the said concave and convex faces toward engagement with the sides of the crack, while resisting pivoting action, so as to tend to cause secure three-point engagement of the chock. The rope or line thus passes through the body of the chock between the said convex and concave faces, and is enclosed and protected by them.

Thus, an appropriate size of chock of the invention can be used as a conventional chock to wedge, by its plane tapered faces, into a smooth-sided crack of the same taper angle, but unlike the conventional chock it can ensure at least three points of contact in both smooth cracks and irregular cracks over a far greater range of taper angles of the cracks.

The invention thus improves on the performance of conventional wedge-shaped chocks by virtue of the fact that one size of chock of the invention can be used in cracks over a greater range of angles of taper.

Embodiments of the invention will now be described with reference to the accompanying drawings, in which:

FIG. 1 is a side elevation of a climbing chock in accordance with the invention;

FIG. 2 is a front elevation of the chock of FIG. 1;

FIG. 2a is a front elevational view of an alternative embodiment of the invention;

FIG. 3 is a top plan view of the chock of FIG. 1;

FIG. 4 shows a perspective view;

FIG. 5 corresponds to FIG. 1 but shows a modified construction;

FIGS. 6 and 7 show the chock of FIG. 5 positioned in two cracks of different taper angles; and

FIG. 8 shows chocks in accordance with FIG. 5 applied to a wider crack.

In **FIGS. 1 to 4** a climbing chock 1 is generally of a wedge shape with plane tapered faces 2 and 3, and with plane and parallel oblong or rectangular end (i.e. usually top and bottom in use) faces 4 and 5. The other two opposite faces 6 and 7, the large faces in this embodiment, are respectively concave and convex. The curves of the two

faces extend substantially in the same direction and their degrees of curvature are roughly the same (see FIG. 1). The curves are substantially constant over the height of the chock and extend over most, preferably ≥ 90%, of the height.

Vertical/longitudinal passages or channels 10 for a wire rope run between the top and bottom faces 4, 5. These passages pass through between the side faces 2, 3 and 6, 7, emerging at the top and bottom faces 4, 5. Though not easily visible, the part of the top surface 4 of the chock on which the rope rests is rounded between the openings of the channels, to reduce wear on the wire rope. As long as there is support for the rope so that it pulls the chock downwards when a load is applied, the two channels can be amalgamated over most of their height to a single hollow space or passageway means.

The wire rope enters the chock at an opening in the narrow (lower) end face 5, passes through one longitudinal passage or channel 10 to the upper end face 4, where the rope exits the chock and loops back down through the other longitudinal passage 10 to emerge again from the chock at the narrow end face 5, as more clearly shown in FIG. 6 below. The rope forms a loop or “loop sling” to which the climber’s rope can be attached. By virtue of the internal passageway means afforded by the two channels 10, the wire rope is thus entirely within the body of the chock (as seen in the side-to-side direction, between faces 6 and 7) and is thus protected.

The alternative chock of **FIG. 5** conforms in most respects to the chock of FIGS. 1 and 3 except that it is of larger size and, to reduce its weight, it is hollowed out to provide a central hole 8 extending laterally from one planar side face 2 to the other 3.

Thus, the chock can be used in a conventional manner to wedge by its plane taper surfaces 2 and 3 in a smooth-sided crack of substantially the same taper angle, but, in contrast with a conventional chock, the chock of the invention can be used effectively in irregular cracks and in smooth cracks over a greater range of taper angles, thereby allowing a climber to carry a reduced number of chocks in the reasonable certainty that the chocks carried can lock adequately into all cracks.

As is shown in **FIGS. 6 and 7**, a chock of the invention can be placed within a crack so that it makes three-point contact by its concave and convex sides 6 and 7, and, as can be seen by comparing FIGS. 5 and 6, the same size of chock can be fitted into cracks of widely varying taper angles. In FIG. 5 the crack illustrated is almost parallel-sided and, when the chock makes three-point contact, the contact on the convex face 7 is towards its upper end. With the acute-angled crack shown in FIG. 6 there is again

three-point contact, but in this instance the contact point on the convex face is towards its lower end. In either case, a secure three-point engagement on the rock is attained, with the direction of loading being longitudinally of the body of the chock.

As is shown particularly by **FIG. 8**, the chocks of the invention have still greater versatility over conventional chocks in that they can accommodate cracks wider than an individual chock. Thus, with two appropriately sized chocks placed convex sides facing within a wide crack, at the concave side of each chock there is two-point contact made with the side walls of the crack, the third point of contact being provided between the two chocks themselves, so that the chocks can be effectively jammed within the crack.

In the alternative embodiment shown in **FIG. 2a**, the two opposite sides 2a, 3a are also respectively convex and concave, in addition to the other vertical faces 6, 7, in contrast to the plane tapered faces 2, 3 of FIG. 2. The two additional curved faces 2a, 3a give additional three-point engagement across the wider dimension of the climbing chock, where desired.

Thus, the chocks of the invention, secured to a loop sling of wire or polymer (nylon) rope in the conventional manner, can be wedged into a wide variety of crack shapes. The sling attached to the chock is then itself attached to the climbing rope, giving great security to the climber.

CLAIMS

1. A climbing chock for positioning in a crack in a rock formation, comprising a generally wedge-shaped body including four side faces (2, 3; 6, 7), two opposite side faces (6, 7) of which are respectively of concave and convex configuration.

2. A climbing chock as in claim 1, further comprising two end faces (4, 5) to the chock, the first end face (lower in use) being smaller than the second end face, both end faces being plane and parallel and of rectangular shape, thereby providing the chock with wider and narrower sides; the said first face including longitudinal passages (10) through which the line enters and emerges from the chock.

3. A climbing chock as in claim 1, wherein the other two opposite side faces (2a, 3a) of the chock are also respectively concave and convex.

4. A climbing chock comprising a generally wedge-shaped body, two opposite side faces (6, 7) of which are respectively of concave and convex configuration to provide secure three-point engagement across a crack in rock being climbed under a wide range of conditions of the crack, and the other two opposite side faces (2, 3) of which are plane and tapered, the chock having plane and parallel end faces (4, 5) of rectangular shape, whereby the chock is provided with wider and narrower sides.

5. A climbing chock as in claim 4, wherein the chock is provided with an aperture (8) extending across the plane tapered faces.

6. A climbing chock as in claim 4, wherein the chock is secured to a line for securing to a climbing rope.

7. The climbing chock of claim 1 or 4, wherein the radii of curvature of the opposite concave and convex side faces (6, 7) are substantially the same in magnitude.

8. The climbing chock of claim 1 or 4, wherein the curves of the opposite concave and convex side faces extend in substantially the same direction.

Application drawings

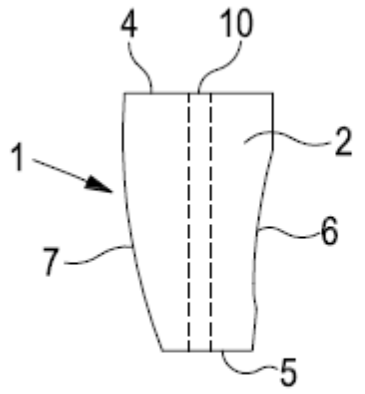

FIG. 1

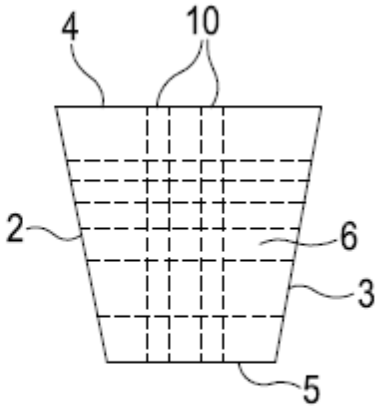

FIG. 2

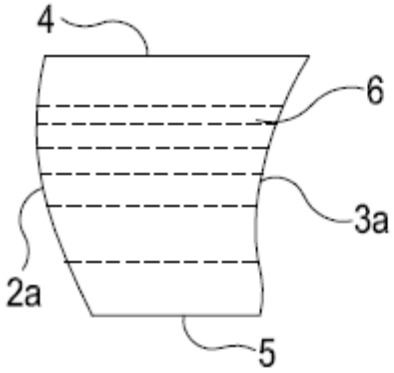

FIG. 2a

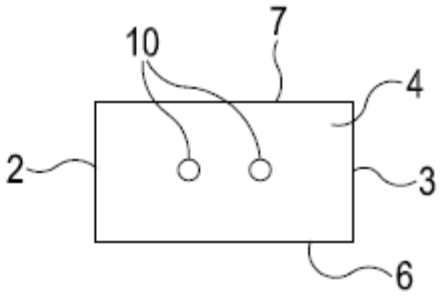

FIG. 3

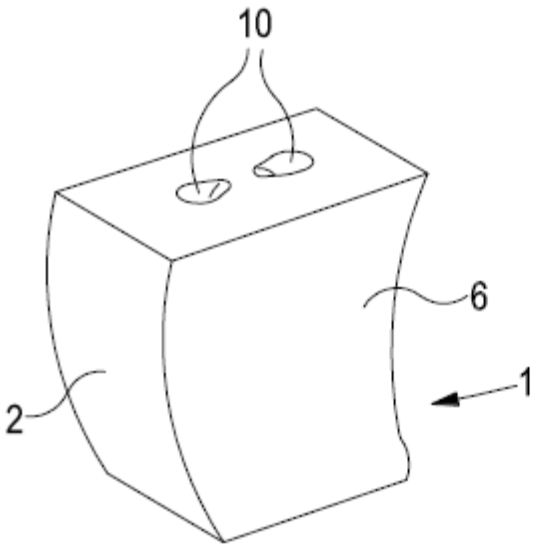

FIG. 4

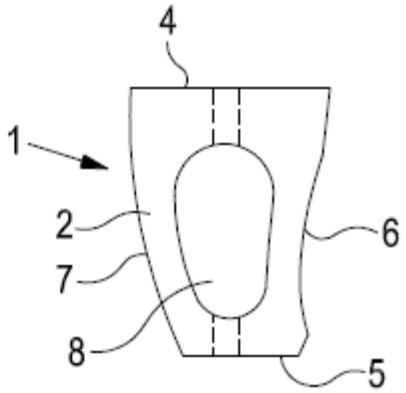

FIG. 5

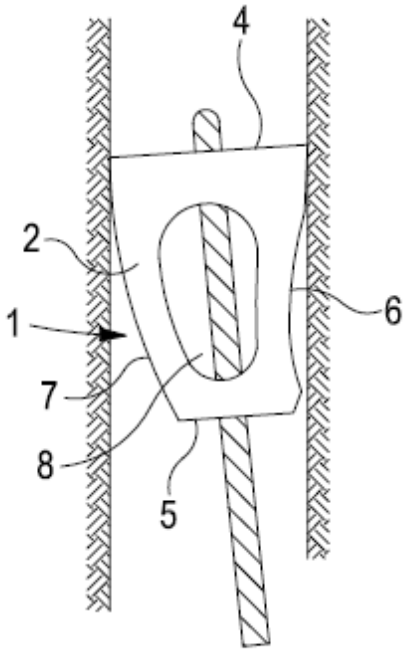

FIG. 6

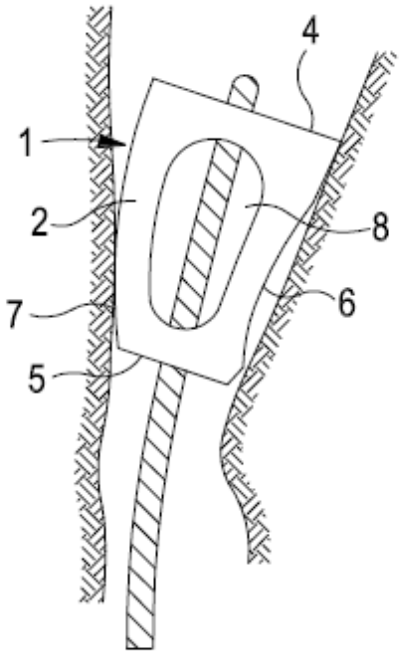

FIG. 7

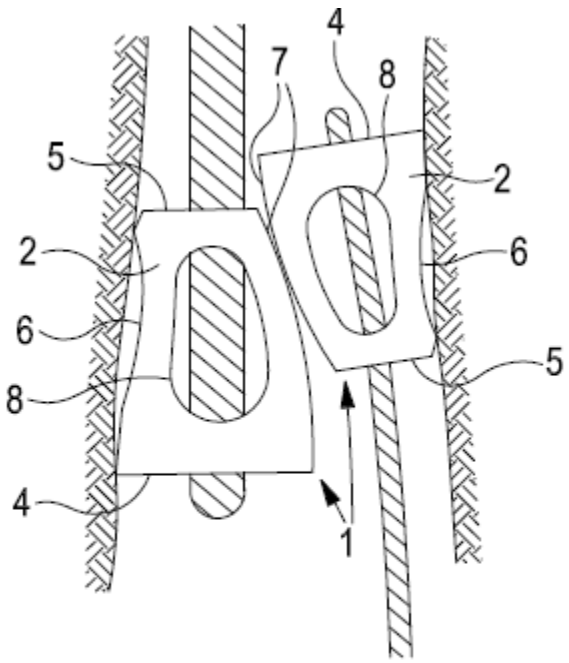

FIG. 8

Document C

Prior art reference D1

US 3,333,333

Granted November 28, 1985

Michael Cloverleaf

BACKGROUND OF THE INVENTION

This invention relates to a new and improved anchoring device for climbing ropes. Preferably, the device is inserted in a crevice with a sling passing through holes formed in the device. A ring or carabiner is received in the sling and a climbing rope slides in the ring or carabiner.

A particular feature of advantage of the device is the fact that it is easily placed by hand or other means in flaws, cracks or irregular formations and is likewise easily retrieved after use.

The device is versatile for use in many natural or man-made formations where the camming or wedging action which is inherent in the device is required to support a rope. The three points of contact of the device provide great strength and stability in anchoring a rope.

When no tension is applied on the rope, the device maintains its position and is instantaneously available to anchor against sudden or unexpected loads or shocks. When tension is applied to the rope, a stable anchor results from the wedging or camming action. When the tension is released, the locking action ceases.

The camming action heretofore mentioned is a result of the shape of the device and also the hole location.

The device may be fabricated from extruded plastic or metal standard stock or special shapes and is fabricated by sawing lengths of the stock and drilling holes in suitable locations. Alternatively, the device may be cast.

Other objects of the present invention will become apparent upon reading the following description and referring to the accompanying drawings, in which similar characters of reference represent corresponding parts in each of the several views.

In the drawings:

Fig. 1 is a fragmentary perspective view showing one location in which the device is used and also showing climbing gear in place;

Fig. 2 is an enlarged bottom plan view of the device;

Fig. 3 is an end elevation partly broken away in section to reveal internal construction; and

Fig. 4 is a side elevational view of the structure of FIG. 2.

Figure 1 illustrates one site suitable for installation of the device of the present invention. A flaw, crack or crevice 11 is illustrated having downward converging side edges 12, 13. The rock formation should have a crevice 11 with downwardly converging walls 12, 13.

The device 14 is termed herein a “trefoil” or triangular wedge shape and is of plastic or metal, light in weight, strong, and of a shape defined more accurately below.

The device 14 has a centre indicated by reference numeral 21 from which, as viewed in end elevation in Fig. 3, extend three arms 22a, 22b, 22c equiangularly spaced 120° apart and preferably of equal length. The outer end 23 of each of the arms is rounded and the junctures of the arms are rounded in large-radius fillets 25. The shape may be a standard plastic or metal extrusion. In a preferred form of the invention, as best shown in Fig. 4, in side elevation the device is trapezoidal in that the end walls 24 converge toward the first arm 22a. This arm 22a, as best shown in Fig. 1, is preferably downmost in position of use.

Holes 26b, 26c are formed in the device at the base of the upper arms 22b, 22c (see especially Fig. 3) and the holes 26b, 26c intersect at the rounded portion 25 between the arms 22b, 22c, their intersection being exposed. The holes 26b, 26c pass to either side of the centre 21.

Accordingly, the sling 16 is inserted through the holes 26b, 26c, and a knot 17 is formed therein. The exposed intersection of the two holes facilitates installing the sling 16. When a downward pull is applied to the sling 16, the arms 22b, 22c wedge against the crevice sides 12, 13.

The device 14 may be placed in the crack 11 by hand or by a stick, which is used to extend it into place. Once it is in position, a pull on the rope 19 cams the device 14 into position. After the device 14 has served its purpose, it may be pulled upward by the climber for reuse later.

(*claims omitted*)

D1 drawings

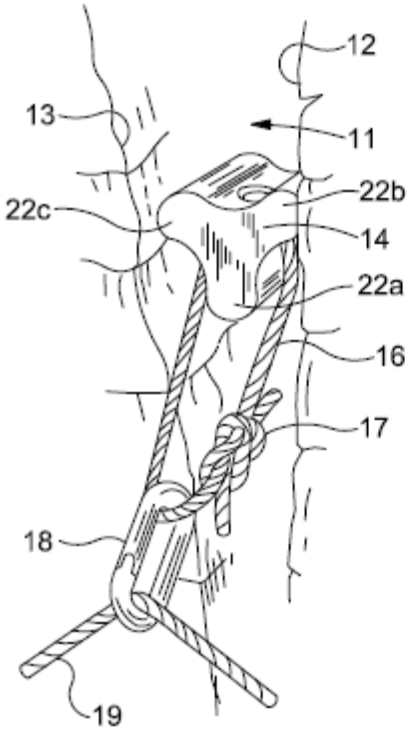

Fig. 1

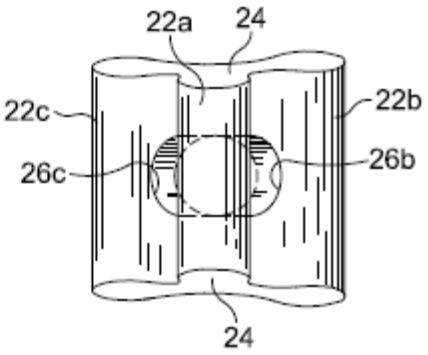

Fig. 2

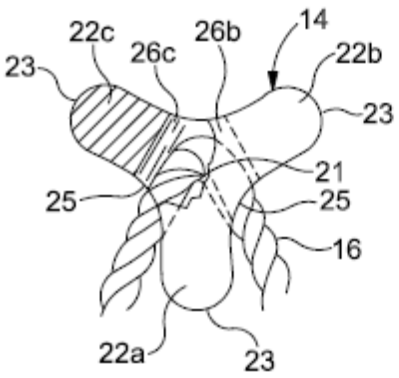

Fig. 3

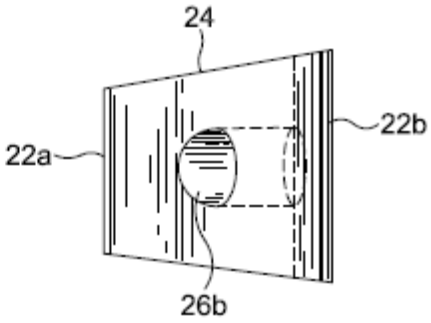

Fig. 4

Prior art reference D2

US 4,321,321
Granted March 27, 1998
Holdstone, Inc.

BACKGROUND OF THE INVENTION

Providing means for supporting climbers when climbing steep rock or mountains has been a problem. Traditionally, pitons have been used by rock climbers and mountaineers to provide anchor points when climbing steep rock faces or peaks. Various-sized wedges are used, made of metal and equipped with an eye. They are driven into cracks in the rock with a small hammer and provide solid anchor points when they are placed properly and driven in firmly. The eye of the piton is outermost and a climbing rope is attached with a metal carabiner, a snap ring or metal loop with a spring-loaded gate. The problem with pitons is that they are often difficult to remove and reuse and their placement and removal seriously scars and damages the rock, especially in popular climbing areas. In such areas, therefore, pitons are being rapidly replaced by metal nuts of various types.

SUMMARY OF THE INVENTION

The present invention relates to a lightweight device adapted to be wedged in existing cracks in rock for holding a rope and which may be readily removed.

It is, therefore, an object of this invention to provide a climber's nut or chockstone suitable for use in cracks of many different widths.

It is a further object of the invention to provide a climber's chockstone adapted to have a sling rope associated therewith and wherein the sling rope is protected from abrasion against the rock surface.

It is another object of this invention to provide a climber's chockstone that can be removed from a crack easily through use of the sling rope itself.

A still further object of this invention is to provide a climber's chockstone configured to produce a cam-like effect to jam the device securely in any crack of appropriate width, regardless of the nature of the rock or its texture.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a side view of a chockstone of the present invention showing the same in place in a relatively wide crack;

Fig. 2 is an end view of the device of Fig. 1 showing it in place in a narrow crack;

Fig. 3 is another side view of the device of Fig. 1 illustrating the manner of its use in a narrower crack than that of Fig. 1;

Fig. 4 is a top plan view of the chockstone as would be seen from the top of Fig. 1;

Fig. 5 is a bottom view of the chockstone as would be seen from the bottom of Fig. 1;

Fig. 6 is an end view of the chockstone as would be seen from the left side of Fig. 1;

Fig. 7 is a sectional view taken along the line 7--7 of Fig. 4; and

Fig. 8 is a sectional view taken along the line 8--8 of Fig. 4.

DESCRIPTION OF A PREFERRED EMBODIMENT

In the drawings, 2 and 4 indicate opposite sides of a crack in a stone face or rock to be climbed and to which a climber desires to secure his climbing rope. The chockstone of the present invention, generally designated 6, comprises a unitary body of material formed to the configuration shown and having a first pair of opposed faces 8 and 10, a second pair of opposed faces 12 and 14, and a third pair of opposed faces 16 and 18. As shown, the opposed faces are external surfaces of the chockstone and the faces of each pair are outwardly convex and tapered generally from one side to the other so that the body in its entirety actually defines wedges of three different widths. The convex shape is ideal for ensuring that the chockstone engages the crack. Some climbers might prefer one pair, or even two pairs, of faces to be flat and parallel.

Preferably, the chockstone 6 will be moulded of a polycarbonate resin. This material provides a chockstone of light weight, thus imposing no great burden on a climber who carries several of them. It is also extremely strong, resistant to abrasion and unlikely to shatter. However, other suitable materials may be used.

As also shown in the drawings, the body 6 is provided with an opening 20 through it, which extends through the faces 8 and 10, for example, but inwardly of the other pairs of faces. The opening 20 also extends laterally, as at 22 (Fig. 8), through the face 14, for example. Extending transversely across the opening 20 is a support member 24 shown as a metal tube, press-fitted into a transverse bore 26 in the body 6. A loop of sling rope 28 is formed to extend into the opening 20 round the tubular support 24, as shown in Fig. 1. The sling rope 28 may be provided with any known or desired form of carabiner or like connector, to which a climber's tie rope may be readily attached, all in a well-known manner.

In use, when a climber wants to provide an anchor point in an available crack in the rock, the chockstone may be placed in the crack in any one of the positions shown in Figs. 1, 2 or 3, depending upon the width of the crack and the size of the particular chockstone employed. Figure 2 shows the chockstone in a narrower crack, sideways on, and Fig. 3 shows it in a crack of intermediate width, as in Fig. 1 but rotated by 90°.

A slight downward pull on the sling rope 28 will firmly wedge the chockstone in the crack and provide a firm anchor point for the climber. As shown in Figs. 1 and 2, the sling rope 28 hangs down through that portion of the opening 20 extending through the face 10, but, in the position shown in Fig. 3, the sling rope 28 extends outwardly of the body 6 through the lateral enlargement 22 of the opening 20 in face 14. The integral strut portion 32 of the chockstone bears against a side of the rope sling 28 but does not interfere with its free suspension downwardly from the chockstone, to support a climber.

As stated previously, it is desirable that anchor devices used by climbers be easily removed as the climber progresses upwardly and it is advantageous that they be readily removable from the rock crack without unduly disfiguring the rock surface and without requiring the climber to carry heavy equipment to effect this removal. To remove the chockstone 6 from the crack, as shown in Fig. 1, for example, the sling rope 28 is pushed upwardly so that its upper end projects upwardly through the face 8, as shown in broken lines in Fig. 1. Thereupon, the climber grasps the upwardly projecting portion of the sling rope and, by pulling or jerking it upwardly, dislodges the wedged chockstone from the walls 2 and 4, and frees it from the crack without further manipulation. It may thereupon be wedged in another or the same crack at a higher elevation using whichever pair of opposed faces may be appropriate for the width crack at the next desired anchor point.

From the foregoing description it is apparent that applicant has provided a lightweight chockstone easily and readily manipulated to provide a firm anchor point or to be released therefrom and with which abrasion of the climber's rope is at a minimum. The climber's rope sling need not engage the rock surface at all, and thus the danger of abrasion from the rock is minimized. Clearly, a chockstone embodying the principles of the present invention may be constructed in any desired size or range of sizes.

(*claims omitted*)

D2 drawings

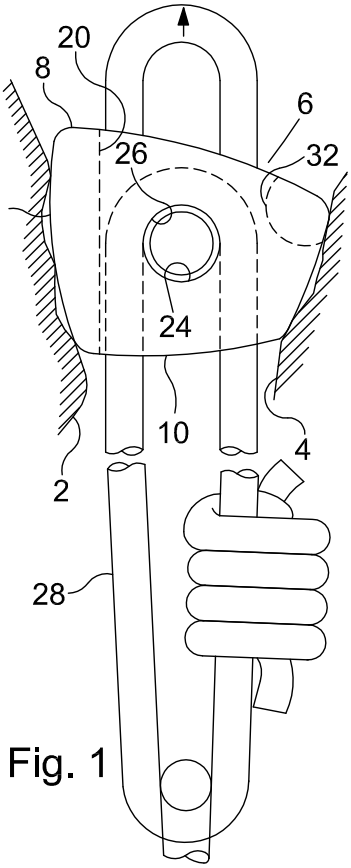

Fig. 1

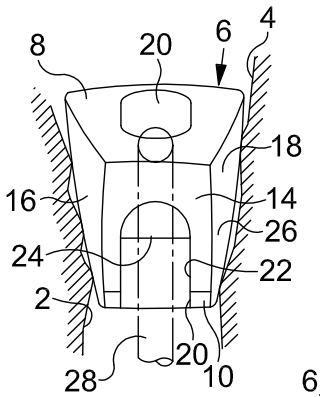

Fig. 2

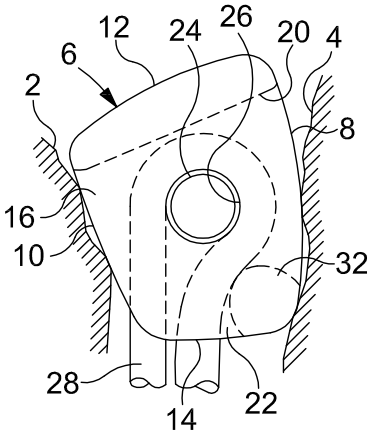

Fig. 3

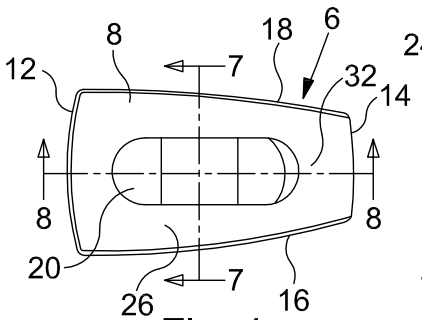

Fig. 4

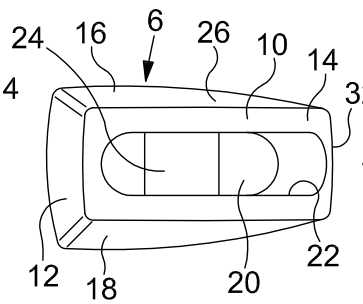

Fig. 5

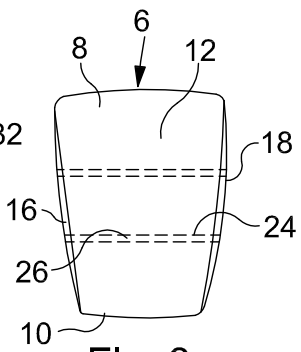

Fig. 6

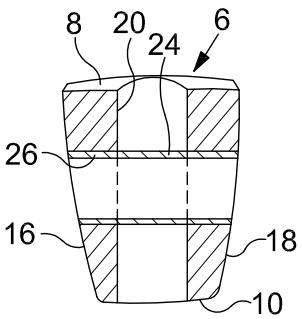

Fig. 7

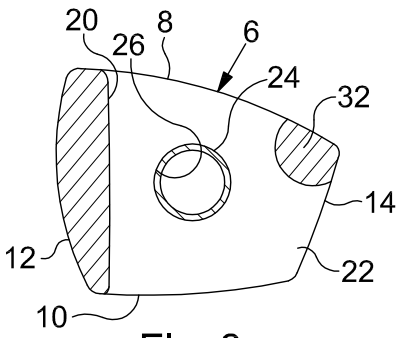

Fig. 8

Document E

A copy of the claims

CLAIMS

1. A climbing chock for positioning in a crack in a rock formation, comprising a generally wedge-shaped body including four side faces (2, 3; 6, 7), two opposite side faces (6, 7) of which are respectively of concave and convex configuration.

2. A climbing chock as in claim 1, further comprising two end faces (4, 5) to the chock, the first end face (lower in use) being smaller than the second end face, both end faces being plane and parallel and of rectangular shape, thereby providing the chock with wider and narrower sides; the said first face including longitudinal passages (10) through which the line enters and emerges from the chock.

3. A climbing chock as in claim 1, wherein the other two opposite side faces (2a, 3a) of the chock are also respectively concave and convex.

4. A climbing chock comprising a generally wedge-shaped body, two opposite side faces (6, 7) of which are respectively of concave and convex configuration to provide secure three-point engagement across a crack in rock being climbed under a wide range of conditions of the crack, and the other two opposite side faces (2, 3) of which are plane and tapered, the chock having plane and parallel end faces (4, 5) of rectangular shape, whereby the chock is provided with wider and narrower sides.

5. A climbing chock as in claim 4, wherein the chock is provided with an aperture (8) extending across the plane tapered faces.

6. A climbing chock as in claim 4, wherein the chock is secured to a line for securing to a climbing rope.

7. The climbing chock of claim 1 or 4, wherein the radii of curvature of the opposite concave and convex side faces (6, 7) are substantially the same in magnitude.

8. The climbing chock of claim 1 or 4, wherein the curves of the opposite concave and convex side faces extend in substantially the same direction.