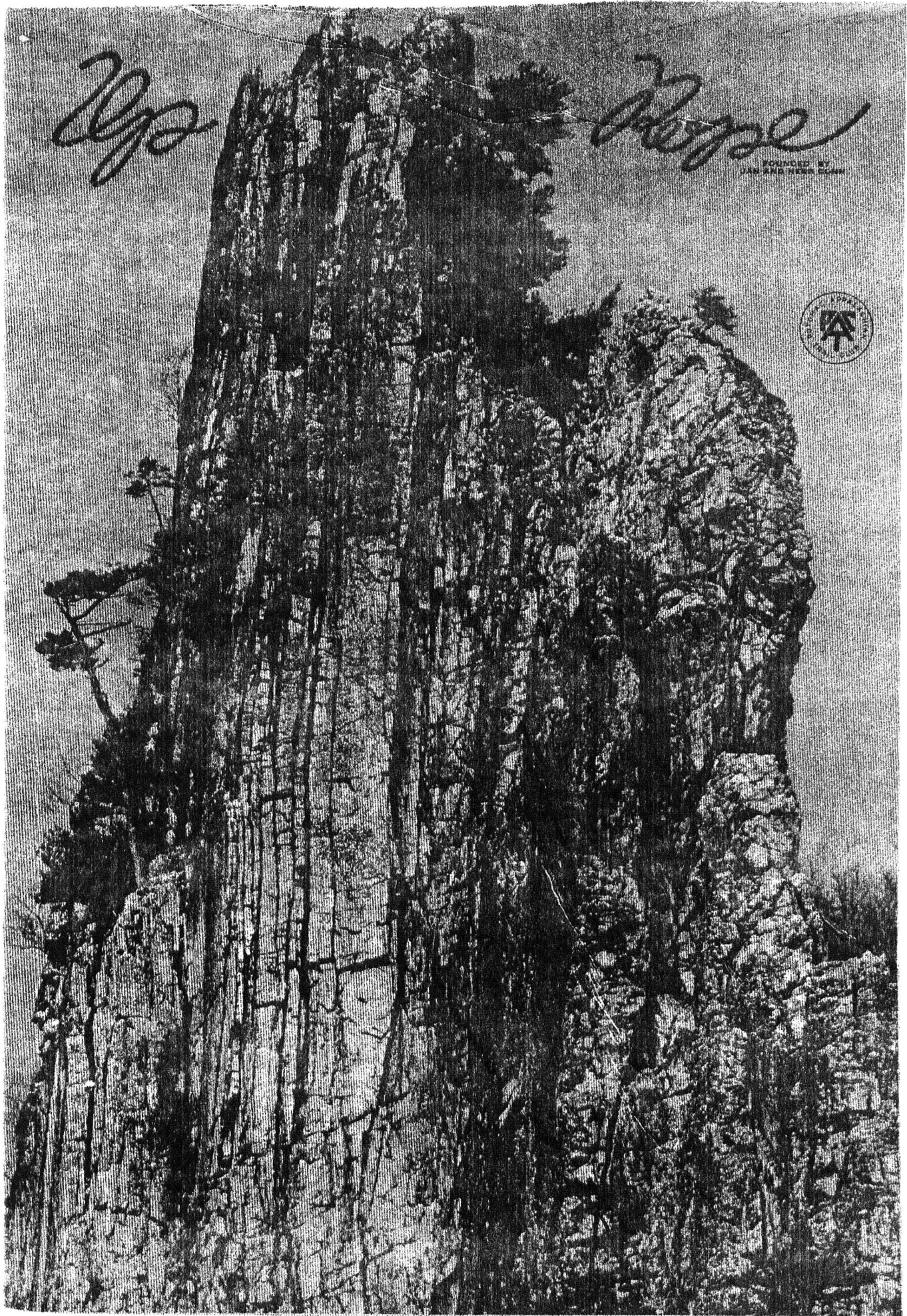


U.S.

Maple

FOUNDED BY
JAN AND NERA CLARK



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EDITOR

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363-0757

BUSINESS MANAGER

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630-9055THE COVER - THE FACE OF A THOUSAND PITONS

The basic photograph was taken by Ross Chappel with the assistance of Thais Weibel and Cris Buckingham. Our thanks to Ross and his assistants for allowing use of his photograph.

This is the first time we have used this process and, hopefully, with your, the readers, assistance we will be able to continue this practice. Your comments, suggestions, criticisms, or impressions are invited.

JOE NOLTE

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The Mountaineering Section of the Potomac Appalachian Trail Club welcomes all individuals who wish to participate in its weekly outings and to share in the freedom of the hills. Sunday day trips leave from Howard Johnson's at Wisconsin and Western Avenues, N.W. at 8:30 am. Come early and have breakfast. If you are late, check behind the Southeast drainpipe for any change in scheduled activities. Climbing lasts all day. Groups stop for supper on the way home. Bring Lunch and water. Wear clothing suitable for climbing. For further information, contact the trip leader. For information about the Mountaineering Section write to: Secretary, Mountaineering Section, PATC, 1718, N Street, N.W., Washington, D.C. 20036, or visit PATC Headquarters between 7 pm. and 10 pm. any weeknight.

UP ROPE PUBLICATION

UP ROPE is the Newsletter of the PATC Mountaineering Section, founded by Jan and Herb Conn in 1944. Publication is on the last Wednesday of each calendar month at PATC Headquarters. Deadline for submitted material is the next to last Wednesday of the month preceding an issue. Material for inclusion, comments or questions on editorial policy should be directed to EDITOR, UP ROPE, c/o PATC, 1718 N. Street N.W. Washington, D.C. 20036. Subscription rates are \$1.50 per year. New subscriptions and changes of address should be directed to Business Manager, UP ROPE, etc.

Extra copies of UP ROPE are generally found at the information Desk of the PATC should anyone wish one or two for passouts. Please do not take anymore than is necessary for your aims as these are primarily for use by the Information Desk.

When a new editor takes office, it is traditional that he publish a short piece introducing his administration. Generally, he starts by praising past editors, moves on to a quotation from Benjamin Franklin, and finishes with a description of how he intends to "move forward to bring you an even better publication than you have had in the past." In keeping with this tradition, I would like to say; we have had a succession of capable, hard working editors, a penny saved is a penny earned, and I will try to give you the publication that you desire.

But I would like to ask a question at this point. What is the publication that you desire? As you can see, UP ROPE is very different this month. One reason for this is that we have published in haste. The major reason, however, is that UP ROPE is again in the hands of the planners. I would appreciate any suggestions, comments, helpful criticism, and ideas from the subscribers with regard to the design of our newsletter. The quality of UP ROPE is my responsibility as editor. The content and design of UP ROPE are our responsibility as members of the Mountaineering Section. As editor, I have the privilege of deciding what goes in to UP ROPE and how it goes in. But I would like to base my decisions on a knowledge of what all of us, as members, wish to receive each month. I want UP ROPE to be a reflection of the membership. Please take a moment to write in or to tell me in person what you want to see.

The format of UP ROPE is as yet uncertain. I plan to continue to use the cover photo idea and to include sections for editorial comment, business meeting summaries, committee reports, articles on the burning issues of our times (The Spruce Knob-Seneca Rocks Recreation Area Controversy as well as the price of coffee at HoJo's) trip reports, and, of course, the trip schedule. I plan to continue to require a deadline for publication, with late articles carried over for the subsequent issue. As for the treatment of articles, I will try to catch the minor errors that the best of writers make in spelling, punctuation, and grammar. If extensive editing is called for, it will be done in consultation with the author. In order to secure trip reports, I may work up a mimeographed questionnaire for trip leaders. In this manner we will be assured of at least a few details of each trip.

I would also like to make the pages of UP ROPE available as a forum for the discussion of matters of concern to members. I promise to give fair treatment and equal space to proponents of all sides of a given issue in the hope that UP ROPE will be useful to the section in establishing our official position. I will require that comment be kept temperate and, hence, useful.

Although my work is writing, editing is a new experience for me. I have a lot to learn. I hope to serve you well, but I will need your patience and contributions in order to do the job right. My only unbending policy as editor will be to work for you, not against you, as we are all in this together. If UP ROPE is a success, it will be to the credit of us all.

Training Committee Meeting
July 15th, 1968

The minutes of the meeting of June 17th were read and confirmed.

The rest of the meeting was mainly concerned with matters arising from the minutes, as follows:

1. The check list was the subject of considerable discussion with respect to past practices in the club and the prospect of the club being able to continue to offer in the future a rigid, formal training programme.

It was agreed to recommend to the club:

(a) The check list will be used as a guide for the training committee and stewards.

(b) The check list is not appropriate as a measure of a member's ability, for example with respect to the membership card requirements and standards other than those of the group.

(c) The membership card should be amended to state simply that members have completed the group's training programme and

(d) That two or more stewards may recommend to the group chairman that the training portion of group entry requirement has been met.

2. The Oscar sub-committee has selected a site at Cupids Bower and will begin active work on July 18th. Tom McCrum is to investigate the supply of new equipment for the manual operation of Oscar, manual operation being preferable in view of the site and the problem of packing in the equipment. Don Stemper has replaced Dave Templeton.

3. The first occasion for stewards to act is to be August 11th. They will be Lanny Hughey and either Chris Buckingham or Joe Nolte.

4. Copies of the M.I.T. guide are to be bought for use by the stewards.

| | | |
|---------------------|-----------|----------------|
| Those present were: | J. Nolte | Miss P. Pierce |
| | R. Adams | D. Stemper |
| | A. Wexler | F. Robinson |
| | L. Hughey | A. Wilder |
| | T. McCrum | |

Signed:

F. R. ROBINSON

PITONS

Field measurements have been carried out by the National Engineering Laboratory of the holding power of many types of pitons driven into a wide variety of cracks in natural rock exposures in the normal way. The rocks were a hard, strong volcanic rock, a hard crystalline limestone and a soft, weak sandstone (Typical of the English Lake District, some Yorkshire Limestone, and the East Kilbride area, respectively). A downward force parallel to the rock was applied to the piton and the force required either to break the piton or to pull it from the crack was measured. From some 450 tests, the conclusions were drawn with regard to the loads which may be applied to pitons used for fixed or running belays (in direct applications, lower standards of security are often acceptable).

1. The holding power of a considerable proportion of the pitons manufactured in Europe is dangerously inadequate. This is due to the use of soft steel or other low-strength materials, and to bad design.

2. In a horizontal crack, adequate holding power can be obtained reliably and consistently under practical conditions only by proper design of the head and blade of the piton and by the use of high tensile alloy steel or other high strength material. At present (February, 1967) the only pitons which fully satisfy these requirements are manufactured in the USA.

In very wide horizontal cracks, high holding power is available from large V-angle pitons of high strength steel or light alloy.

3. In a vertical crack, adequate holding power cannot be assured with any type of piton. The highest level of design and the use of high tensile steel or other high-strength metals will always produce the maximum holding power in any given circumstances, but this is likely to be adequate only in a very good crack.

Personal skill in placing the piton is most important in vertical cracks. The optimum placement normally results when the shape of the crack prevents vertical rotation of the piton when it is loaded, and so produces conditions similar to a horizontal crack.

It is important to use a piton with the longest possible blade consistent with its complete entry into the crack. A heavy headed hammer and very high striking force is particularly advantageous when a poorly shaped crack must be used.

4. Climbers normally assess the holding power of pitons by the way they react to the hammer, by the sound produced on impact, and by the nature and direction of the crack in relation to the direction of pull. Such an assessment for a horizontal crack will always over-estimate the holding power of a badly-designed piton of soft steel, often dangerously so, and will often over-estimate the holding power of a reasonably designed piton of soft steel. In contrast, the holding power of well-designed pitons of high strength steel is normally under-estimated.

For vertical cracks such an assessment is unreliable for any type of piton and neither the sound nor the feel of the piton as it is struck by the hammer provides a useful guide. The quality of the placement in a vertical crack is the only guide. It is normally preferable with a well-designed high

strength piton to use an apparently poor horizontal crack rather than any but an extremely good vertical crack. This is not necessarily true for soft steel pitons.

5. If a piton cannot be hammered completely into a crack, the holding power is much reduced. The holding power can be increased by clipping the karabiner through a loop of strong nylon tape or rope placed around the blade of the piton as close as possible to the rock. Thin blades, or those with sharp edges, can cause cutting of the tape or rope when loaded.

RECOMMENDATIONS

For use as a fixed or running belay, a piton should meet all the following requirements.

1. The distance between the karabiner and the edge of the crack is critical and should be kept as short as possible to ensure a minimum bending moment about the blade. With a circular eye this will be achieved by keeping the distance between the shoulder and the eye small. The eye itself should only be large enough to allow a little clearance around the karabiner. An elliptical eye can greatly reduce the holding power of a piton and should be avoided if possible. If such an eye is considered necessary, then the axis of the eye should be inclined so that when a single karabiner is under load, it will locate at the lowest point of the eye and as close as possible to the shoulder; if two karabiners are used, this will be effective only if the load comes on the inner one.

2. The shape of the shoulder should ensure that only a very limited amount of bending of the head about the blade is possible before the shoulder comes into contact with the rock. This greatly reduces the extractive components of force on the piton.

3. The head must be sufficiently rigid not to deform significantly under the loads imposed.

4. The blade of the piton should possess maximum rigidity for its section and weight. This necessitates the use of high-strength material, such as alloy steel, and a cross-section which is inherently stiff.

5. The steel used must display a high degree of toughness, even at low temperatures. The overall degree of quality control during manufacture of the piton and, in particular, during heat treatment, must conform to the highest industrial standards so as to avoid any possibility of brittleness.

HORIZONTAL CRACKS

| <u>Type of Piton</u> | <u>Hard Volcanic Rock</u> | <u>Hard Limestone</u> | <u>Soft Sandstone</u> |
|---------------------------------|-------------------------------|-----------------------|-----------------------|
| Well designed, high strength | 2850-5000+1b | 2400-4200+1b | 1950-4200+1b |
| Well designed, soft steel | 1450-4200 lb | 900-3200 lb | 1000-2250 lb |
| Badly designed, soft steel | 500-2100 lb | 400-1750 lb | 400-1850 lb |

VERTICAL CRACKS

| | | | |
|---------------------------------|--------------|-------------|-------------|
| Well designed, high strength | 1050-4600+1b | 900-4800+1b | 800-3400+1b |
| Soft steel | 400-3200 lb | 400-2600 lb | 200-3100+1b |

ACKNOWLEDGEMENTS

This report is by the British Mountaineering Council Equipment Subcommittee in co-operation with National Engineering Laboratory, East Kilbride, Glasgow, Scotland, and was given to UP ROPE by Bob Robinson.

A CABIN IN THE SENECA AREA

At the last meeting, Bob Robinson proposed a motion that the Section should investigate the possibilities of leasing and/or buying a cabin somewhere in the vicinity of Seneca Rocks. This motion was seconded and carried by a unanamous vote.

With the number of people already involved in committee activities and the large number away for the summer, I propose to put this matter before the general membership and invite your comments, suggestions, and proposed location. When a list of proposed locations is available, a committee will be formed to select a suitable site.

The eventual selection of a cabin location will depend on your cooperation.

Joe Nolte
JOE NOLTE

THE END OF AN ERA

OSCAR is gone from Carderock

Once only a few fisherman and a group of enthusiastic climbers knew the location of carderock. The half mile walk along the toe path kept all but the hardest of picnickers away and climbers could climb and train new members in relative solitude. This was an excellent location for OSCAR and for a goodly number of years, generation after generation of new climbers were initiated in the practical application of dynamic belaying.

Now progress has destroyed the solitude of Carderock and vast numbers of city dwellers descend on the area to escape from THE CITY, commune with nature and deposit their litter in every conceivable location but the trash containers.

To protest these lovers of the great outdoors, OSCAR training was suspended.

Now OSCAR lies in the river, all the rigging is gone from his tree, and an era is ended.

Anyone who wants to help re-locate OSCAR, contact Joe Nolte.

COMING EVENTS

August 4 Echo Cliffs
 Trip Leader
 Al Goldberg 552-2378

August 11 Carderock
 No trip leader. This will be the first time that
 the Training Committee will be active.
 Lanny Hughely 530-0007
 Cris Buckingham
 are the training stewards.

August 17 - 18 Eads Ford
 Trip Leader
 Glen Cannon 301 433-6314

August 24 - 25 Smoke Hole
 Trip Leader
 Joe Nolte - 836-6650

August 31 Labor Day
September 2 Seneca Rocks
 No Trip Leader

 Gunks
 Trip Leader
 Tom McCrumm 527-6272

ANNOUNCEMENTS

Wedding Bells rang for Pete Hackett and Carol Hedden. Our congratulations to the Doctors Hackett.

Anyone who wants information on the Dinner at Riverton on the Labor Day weekend, call Susie Moore at 948-9137.

Karl Edler has some 150' Columbian ropes for sale, call Karl at 773-1693 for more information.