

The 1972 Chouinard Catalog...

A word...

by Yvon Chouinard and Tom Frost

The 1960's marked an awakening in American climbing characterized by a vast increase in climbing activity, closely paralleled by a corresponding improvement in technique and equipment. Significant climbing advances have resulted. On the other hand, this combination is producing a serious problem - deterioration of the climbing environment. The deterioration is twofold, involving the physical aspect of the mountains and the moral integrity of the climbers.

No longer can we assume the earth's resources are limitless; that there are ranges of unclimbed peaks extending endlessly beyond the horizon. Mountains are finite, and despite their massive appearance, they are fragile. Although alpine tundra, meadows, trees, lakes and streams are all endangered, our primary concern here is with deterioration of the rock itself. Granite is delicate and soft - much softer than the alloy steel pitons being hammered into it. On popular routes in Yosemite and elsewhere the cracks are degenerating into series of piton holes. Flakes and slabs are being pried loose and broken off as a result of repeated placement and removal of hard pitons.

We can offer a few immediate solutions. Stay off climbs you do not intend to finish. Don't climb up to Sickle Ledge unless you plan to do the entire Nose. Do not use artificial aid on free climbs. But most of all, start using chocks. Chocks and runners are not damaging to the rock and provide a pleasurable and practical alternative to pitons on most free, and many artificial climbs.

Do not use pitons on established clean routes. Where a piton is necessary a fixed piton should be considered and documented in local guide books. Routes of 5.7 difficulty were climbed 60 years ago in England. Today the footholds on these routes are well polished, but because pitons have not been used, the protection cracks are still in mint condition. We urge to your attention Doug Robinson's excellent treatise on the joys and ways of pitonless climbing. It was written especially for this catalog.

Equally serious is a moral deterioration. Armed with ever more advanced gadgetry and techniques the style of technical climbing is gradually becoming so degraded that elements vital to the climbing experience - adventure and appreciation of the mountain environment itself - are being submerged. Siege tactics, bolt ladders, bat hooks, bash chocks, detailed topos and equipment lists, plus a guaranteed rescue diminish rather than enhance a climb. Even now existing techniques and technology are so powerful that almost any climb imaginable can be realized, and the fear of the unknown reduced to rote exercise.

Mad bolters are among the worst offenders of the alpine environment. Young climbers must learn that bolting is done as a substitute for climbing. Guides, climbing schools and established climbers have a heavy responsibility here. We believe the only way to ensure the climbing experience for ourselves and future generations is to preserve (1) the vertical wilderness, and (2) the adventure inherent in the experience. Really, the only insurance to guarantee this adventure and the safest insurance to maintain it is exercise of moral restraint and individual responsibility.

Thus, it is the style of the climb, not attainment of the summit, which is the measure of personal success. Traditionally stated, each of us must consider whether the end is more important than the means. Given the vital importance of style we suggest that the keynote is simplicity. The fewer gadgets between the climber and the climb, the greater is the chance to attain the desired communication with oneself - and nature.

The equipment offered in this catalog attempts to support this ethic. Basically multi-purpose, the articles are carefully designed to serve the overall needs of the climber. More than mere aids, they are conceived to be used in meaningful combination with accepted technique to elevate the individual to a rewarding alpine experience. As we enter this new era of mountaineering, re-examine your motives for climbing. Employ restraint and good judgement in the use of Chouinard equipment. Remember the rock, the other climber - climb clean.

The Whole Natural Art of Protection

by Doug Robinson

There is a word for it, and the word is clean. Climbing with only nuts and runners for protection is clean climbing. Clean because the rock is left unaltered by the passing climber. Clean because nothing is hammered into the rock and then hammered back out, leaving the rock scarred and the next climber's experience less natural. Clean because the climber's protection leaves little track of his ascension. Clean is climbing the rock without changing it; a step closer to organic climbing for the natural man.

In Britain after thousands of ascents of the popular routes, footholds are actually becoming polished but the cracks that protect them are unscarred and clean. The "Nutcracker" in Yosemite, which was deliberately and with great satisfaction climbed clean on the first ascent, doesn't have polished holds yet, but has obviously been climbed often and irreverently; some section of crack are continuous piton scars for several feet.

It can still be done with nuts - they even fit in some of the pin scars - but no one will be able to see this beautiful piece of rock the way the first ascent party did. It didn't have to happen that way. It could still be so clean that only a runner-smooth ring at the base of trees and a few bleached patches where lichen had been worn off would be the only sign that hundreds had passed by. Yet the same hundreds who have been there and hammered their marks could still have safely climbed it because nut placements were, and are frequent, logical and sound.

In Yosemite pins have traditionally been removed in an effort to keep the climbs pure and as close as possible to their natural condition. The long term effects of this ethic are unfortunately destructive to cracks and delicate flake systems. This problem is not unique to Yosemite; it's being felt in all heavily used areas across the country. In the Shawangunks a popular route can be traced not by connecting the logical weaknesses, but by the line of pitons and piton holes up the cliff.

As climbers, it is our responsibility to protect this part of the wilderness from human erosion. Clean climbing is a method we can use to solve this serious problem. A guide for clean climbers is here presented.

RUNNERS

A length of tubular webbing or perlon rope is easily tied into a loop forming one of the most versatile of natural protections - the runner. Normal single length runners can be constructed from about 6 feet of rope or webbing. Double and triple length runners require approximately 10 and 14 feet respectively. Traditionally, these loops have been tied with a Ring Bend which is simple but must be constantly watched because of the slippery tendency of nylon web and rope to untie themselves, especially when wet. A more secure knot that can be tied once for the life of the runner and can be used for both perlon rope and thick tubular webbing is the Double Fisherman's Bend or Grapevine Knot.

Runners are carried over the shoulder and under the opposite arm. In use they are looped over or around anything in sight; blocks, bulges, and bushes, chockstones and chickenheads, knobs, spikes, flakes and trees. For this reason a variety in both material and lengths of runners should be carried. All tubular webbing from 1/2" through 1" and rope diameters from 5 or 6mm through about 8 mm are useful in fitting varying situations. The smallest sizes (1/2" and 5mm) will provide interim protection in tight threading situations. The loop strength of Chouinard 9/16" web and 7mm rope are adequate for most protection needs and 1 inch and 8mm are bombproof. A doubled runner will normally have twice the loop strength indicated.

A common mistake is not having enough runners along; a dozen is not too many. Hero Loops or small runners can be used for the fine work in tying off rock spikes, nubbins, rugosities, and twigs (9/16" web is preferred for protection). Large blocks and chockstones can be tied off with a chain of runners looped together or with double or triple runners which can be carried over the shoulder in loops of two or three coils, kept even by a carabiner.

Historically, runners have been commonly used in reducing the rope drag produced by out of the way protection. When climbing clean this role of smoothing out the line of the climbing rope behind the leader is even more important because the addition of a runner will help protect nuts from being bounced or jerked out of the crack by the climbing rope. A runner makes a nut more secure.

Sometimes runner placements themselves are insecure. For instance a placement that would easily hold the heavy downward pull of a fall might be very susceptible to a light side pull from the climbing rope. Another runner can be attached but sometimes the security can be greatly improved by wedging a pebble or nut into the crack above the runner to hold it into place.

At other times extra security can be obtained by jamming the knot of the runner into place. Placements on slippery bulges might be improved by tying a slipknot in one end of the runner, then cinching it up. In extra ticklish situations, British climbers have used even adhesive tape to hold runners in place on small rock spikes.

Clean climbing demands vision and an awareness of the rock. On the equipment side, runners form the basis for protection. They were all that was available to clean climbing Englishmen before the advent of portable and artificial chockstones. In a like manner, they are the foundation of the modern clean climber's repertoire.

MAKE THE ROCK HAPPY - USE A NUT

To place a nut you must begin by thinking about the shape of cracks. Right from the start clean climbing demands increased awareness of the rock environment. Consider the taper of a crack. Is it converging, that is, flared in reverse, wider inside than at the lip? Or it may be parallel-sided with an even width. Or at the other extreme, flared. Converging cracks are easiest to fit; find a wide spot up high and drop the nut in behind. Beware of the nut falling out the bottom, however, or breaking through a thin-lipped crack. Flared cracks are easy too, usually unfittable. But important exceptions have been known, chiefly in the form of knobs or bulges in the crack which will take a nut behind or above. Also, don't overlook the possibility of fitting a much smaller nut far back in the dark recesses of the crack.

The usual nut placement is in a vertical crack. Find a section of the crack that closes downward; that is, where the crack is wide above, narrower below. Select the right size nut, place it into the wide section of the crack, and carefully locate it where the crack narrows. Then give the sling a stout downward jerk to wedge the nut securely in place. Inspect the placement for adequate constriction of the crack and test the nut's security (the degree to which it can resist being accidentally dislodged by the climbing rope) by giving an appropriately light outward jerk on the sling. Nuts have the advantage over pitons in that they are more naturally at home in vertical placements. This is their normal environment as it is for the chockstones from which they derive.

But the crack may not have any obvious wide-to-narrow placements. Often the difference between sliding and setting is so subtle that it can hardly be seen and is easier felt. This is especially true in granite where cracks are quite uniform and nuts were first thought relatively useless. For these trickier fittings it is helpful to have a good selection of nuts within a given size range; a small variation can be crucial. Pick the largest nut that will just fit in the crack (for Hexentrics remember that a change of attitude will slightly change the size) and work it downward until it hopefully lodges. Test it with a jerk, but avoid testing it too vigorously which will only make it harder to remove as it inches into tighter placement.

Non-granite rocks have other structures to tempt the clean climber. Limestone and sandstone often have pockets that are partly closed off on the surface - sort of inverse chickenheads - that can sometimes be fitted with a nut inserted endwise and turned to wedge.

To complete the range of silent protection do not overlook the potential of using certain sizes of pitons as nuts. Two general classes are possible:

(1) Bongs function very well as large chocks. When used in this manner they are normally placed pointing downward with a runner threaded either through the lower lightning holes or around the entire Bong as if it were a natural chockstone. Also, because they have an end taper, bongs can be wedged lengthwise in six-inch wide cracks.

(2) Long horizontal pitons can oftentimes be placed in cracks without the use of a hammer and have great holding power, especially in horizontal cracks. If used this way in vertical cracks, select a locally wider section of the crack or an area where the rugosities of the crack will grip the piton near each end of the blade and prevent it from rotating or shifting downward. The employment of innovative techniques such as these can turn the occasional compromise situation into good clean climbing!

Finally, a few special cases. Sometimes a crack within a crack will hold a nut when the main crack won't. Very shallow or bottoming cracks or irregularities on the surface of the rock that aren't really cracks will sometimes hold a nut. Shallow cracks can more often be fitted with nuts than with pitons because a nut doesn't necessarily have to be deep to be strong. Slots on the surface of the rock that would take only the most extreme nest of pins and then only for aid will sometimes perfectly hold a happy nut. A nut may even fit between knobs on the surface of the rock; a three-nut nest has been seen set between two knobs that was good enough for aid. Surely more imaginative ways of using them will appear.

RACKING

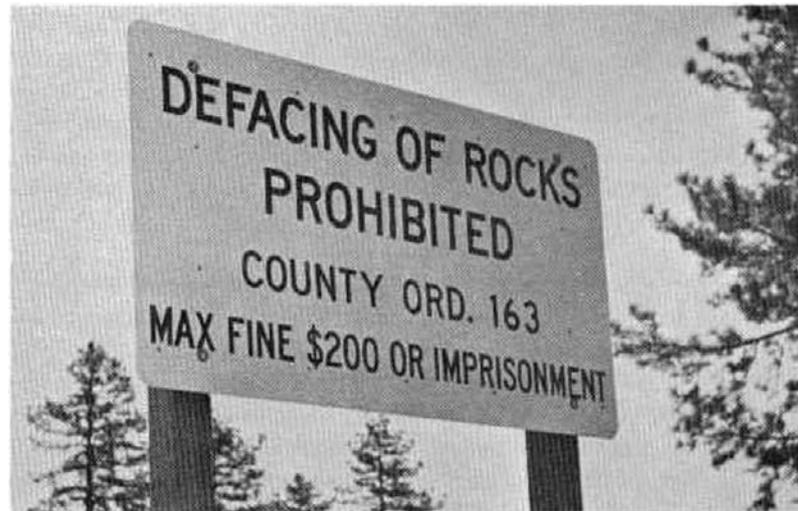
The success of many methods of carrying nuts will depend largely upon the length of the slings. Three length categories exist. Nuts with long slings can be carried in the same manner as runners, over the shoulder and under the opposite arm. This is probably the best carry for extremely large nuts such as Hexentrics No. 9 and No. 10. Medium length slings can be carried around the neck, necklace fashion. This is an excellent quickdraw position, but if more than a few nuts are carried this way the slings will become tangled as well as block the view of your feet. In this country the most common method is to fix the nut with a short sling and carry them clipped onto the normal hardware loop. If a large number of nuts are being carried two cleanware loops can be worn, one on each side, since the hammer will either be little used or not carried.

The British carry their chocks in a variety of ways. A common one is on the equipment loops of their climber's belt or harness. Nuts with medium and sometimes even long slings can be successfully carried in this manner because this attachment at the waist, as opposed to higher on the body, prevents their swinging out front when one leans forward. It also helps to spread the equipment out over the body and keeps it out of the way of runners and equipment carried elsewhere. This method of racking can be obtained without a complicated harness by clipping the chock slings directly onto loops of the Swami Belt or the loop of climbing rope around your waist.

Nuts should be racked like pitons in an orderly manner, assorted in sizes from small to large for ready access. They can be racked one to a carabiner for quicker removal. With chocks as with pitons you will want to carry a range and proportion of sizes complementing the climb - but do not forget to allow for the 1/3 more frequently needed for security.

The length and type of sling affects a nut's usage. Short slings are preferred for aid climbing. Medium and long length slings are useful for free climbing because of the greater security they provide. They also facilitate jerking the sling to set the chock securely in the crack. Chocks on short slings can be set by jerking with a bight of the climbing rope after it has been clipped in. Medium length slings on chocks that will occasionally be used for aid should be made long enough so that they can be shortened up with an overhand knot. Although rope slings are preferred because of their better handling characteristics, some webbing slings will be useful for fitting into highly constricting cracks.

Wire slings are used in the smallest sized chocks to obtain strength. Chocks with wire slings have advantages in aid climbing and are easier to remove, but if they are not needed for strength reasons they should be avoided in general free climbing use because of their inherently low security.



PRACTICE

The question sometimes arises of tapping a nut with the hammer to seat it in the crack. Probably a holdover from piton pounding, this practice will be found not so much harmful to the rock (which is the problem with pitons) as it is to the whole essence of clean climbing. It is a bad habit. Either you are climbing clean or you are not. As if summarizing the whole ethic of British climbing Joe Brown posed the question, "When does a chock become a peg?"

This is a worthwhile guideline to remember, for clean climbing is as much a battle with temptation as it is with the mountain. The use of pitons on a clean climb is somewhat analogous to the placing of bolts on a peg route. They are both antagonistic to principle. The true object, as always, is not simply to get up things and check them off in our guidebook - it is to challenge ourselves. You have not totally committed yourself to climbing clean if you still carry the hammer and pegs with which to rescue yourself when the going gets tough.

Clean climbing requires judgment and an accurate knowledge of one's own limitations; and helps in the future development of these qualities. The best way to start climbing clean is to relearn climbing itself from the ground up. Begin once again on the easy climbs, committing yourself to clean principles, using only runners and chocks for protection. As before, gradually raise your standard commensurate with the development of confidence in yourself and the new equipment. Setting up practice falling situations will help in this development. The mere abandonment of hammer and pitons on hard climbs without first building the necessary aptitude can be disastrous!

In due course guidebooks will list climbs that can be protected with runners and chocks only, just as they now list those that can be climbed free. When so, indicated ironmongery may be totally dispensed with; the full rewards of clean climbing will be yours.

Technique is more useful than force in removing nuts. They must be maneuvered into a wider section of the crack where they can be withdrawn. The fingers or the sling on the nut can normally be used for this. Smaller sizes can sometimes be nudged out with a long thin piton, or the skinny pick of a crag

hammer. Wired nuts are maneuverable by their wires. A few drops of epoxy glue, welding the wire to the nut, will allow pushing with the wire to facilitate removal.

The ideal of clean climbing is to climb unencumbered by pitons and the hammer. This can safely be done in areas where chock cracks are plentiful and clean. The Sierra Nevada high country is such a place. Certain other areas will require a tool for one or more of the following uses; (1) cleaning dirt, weeds or moss from prospective nut cracks, (2) for use by the second in prying or nudging nuts from cracks, particularly nuts that have been used for aid. (3) placing anchor pitons where for some reason, a secure, non-directional anchor cannot be obtained with chocks and runners, and (4) testing fixed pitons. (It still is absolutely essential to test pitons in place with light downward blows of the hammer, because of their inherently lower stability than good center pull chocks, and because they cannot be inspected visually as can chocks.)

STRENGTH ...

Seen through the eyes of a lifetime of pounding, with memories of pounding harder as the fear mounts, the notion of inserting protection with two fingers, and setting it with only a stout downward jerk, tastes of insecurity. For reassurance we need to look back to the homeland of nuts where Joe Brown says that "so many people have fallen on them and been held, that they seem to be at least as safe as a normal sling on a flake or chockstone", which of course can be bombproof.

He feels further that the use of nuts in England and Wales has been responsible for a decline in the number of accidents. And this in a country that uses them not occasionally or for convenience, but regularly almost universally, and by extension in many less than ideal settings.

Note the following report regarding the use of a small 1/4" size Clog nut in Wisconsin: "Just had to let you know that I think your wired tiny brass hex is one of the most wonderful products of modern technology extant. ... I took a thirty foot peel onto one and it held (with the help of an excellent belay)".

It would be useless to speculate on the "normal" holding power of nuts since they depend so much on the configuration of the crack. Their ultimate strength in proper placements will depend on the breaking strength of the rope or wire sling that attaches them to the rest of the climbing system, and this in turn depends primarily on the size of the hole in the nut. Good placements in turn depend not as might be thought on the rock, but rather on the inventiveness of the climber.

... AND SECURITY

The strength and security of an anchor are not the same thing. Strength is the ability of an anchor to hold a fall. Security is its ability to stay put until the fall comes. Both should be considered in placing nuts.

Security can also be obtained by doubling up nuts as explained under anchoring. Extra carabiners left on the sling will weigh it down, helping to hold it in the crack. Extending the nut sling with a runner also helps. Of the nuts that fall or pop out of the crack behind an unhappy leader, ones on wire slings are the worst offenders, usually because the wire ends up acting as a lever magnifying rope movements to pry the nut loose. For this reason medium sized and larger nuts should be put on rope or webbing instead of wire; their flexibility prevents the lever-action blues.

As a general rule nuts accepting 7 mm and larger slings are not wired. Nuts with 5 and 6 mm slings are used for protecting moves and are recommended over wired nuts for insecure placements where the latter would easily be pulled from the crack. This differentiation is not a sharp one but the sizes and strengths required for mild versus serious falls is thought to grade from the one into the other at about the 7 mm level.

Wired chocks should be tied off with a runner to act as a flexible connection between the still nut and the moving rope. (Figure 5). In order to retain the runner's full strength it must be clipped into the wire sling with a carabiner for if it is looped directly through the wire a serious reduction in runner strength can result as indicated in Table D. We have found that plastic covering over the wire does not appreciably increase the runner's strength.

After taking all these precautions the fact will still remain that many nut placements, like the infamous psychological piton, will be neither strong nor secure. The British, of course, have already recognized this problem and have a solution. They employ as many shakey nuts as necessary (or at least as many as they can get!) to do the job.

They average about 1/3 more nuts and runners on a pitch than would normally be used for protection with pitons, mindful that a few will fall out, and some that stay in probably would not hold. For example, as many as 20 nuts and threads can be, and sometimes are, fitted into the very difficult but unusually well protected 120 foot Cenotaph Corner in Llanberris Pass.

THE IMPORTANCE OF BEING ANCHORED

Runners around trees share with pitons the quality of being non-directional anchors; pull on them any direction and you get held. Other runners and most nuts are more particular which way they are loaded - they are directional. A leader anticipating the specific direction he might be loading it, places his natural protection with that direction well in mind.

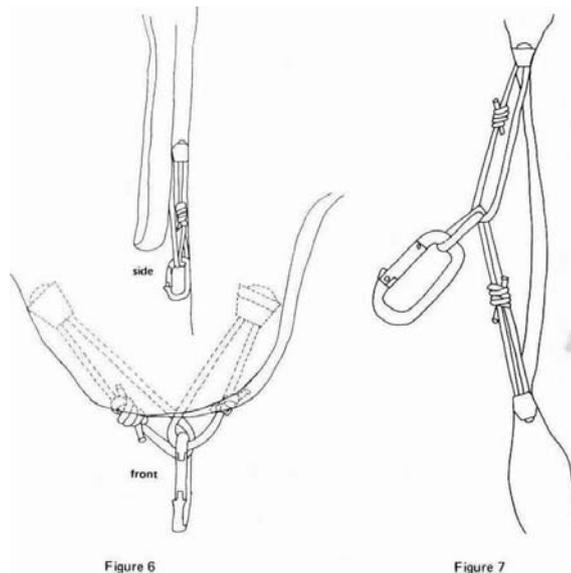
But belay anchors are not so simple, and it is with these anchors that the natural climber must make the greatest effort and analysis. A belayer might be pulled down in a fourth class fall, up in a fifth class one, away from the rock or in a sequence of directions if the leader and he are unlucky. So the belayer must have a non-directional anchor, and in the absence of a handy tree or a permanent natural chockstone, he must construct it from directional tools.

Ideally he will be sitting on a ledge with a converging crack at the back of it that can be chocked for a pull up or out. In this case a downward pull on the belayer would be felt as an outward one on the nut. Another method is to place a nut in a horizontal crack well to the side of the belay position, especially to the side away from a diagonal pitch, such that no force would come straight up or down on it without pulling sideways too.

Mostly the answer to a bombproof belay will be several anchors set in opposition to each other so the resultant will hold a pull from any direction. The simplest example would be anchoring to a single vertical crack by placing one nut in the normal position for a downward pull and another somewhere below it upside down for an upward pull.

The sling of the upper nut is run through the sling of the lower then clipped to the belay so a downward force is held directly on the upper nut, while an outward or upward force will pull the nuts toward each other making the anchor more secure as it gets loaded (Figure 7). Or the slings can be clipped together with a carabiner as in Figure 6.

This same principle also works in a horizontal crack for anchoring and for protection where a single nut would not hold. This technique of opposing nuts can be adapted to many situations according to one's ingenuity. A nut and runner may be opposed, or two runners, three nuts . . . When the only possible opposing anchor points are too widely spaced to be effectively tied together, the belayer may tie-in separately to each of them, giving him one anchor for each of the possible directions he may be pulled.



The belay anchor is the foundation of the climber's whole line of defense. It must be bombproof. It must be non-directional in order to safeguard a leader fall.

Today's concept of extra long ropes and full length runouts is quite recent and local, being at first an adaptation to ledgeless routes in Yosemite and the ability of pitons to anchor virtually anywhere, and spreading from there by way of fashion. It is here that the natural climber will find it advisable to make a small readjustment in thinking. It is far more important to be well anchored than to make long pitches. And it is often more efficient time-wise to stop short and throw a sling over a block than run the rope out only to lose 10 minutes constructing an anchor.

The British have recognized this as a part of climbing with natural protection. On English and Welsh crags pitches of 30 to 60 feet are common. Every well protected ledge is utilized as a belay stance. And the ease and quickness of placement and removal of runners and chocks make these short pitches even more practical. The clean climber may find, especially on crag climbs and alpine routes, including moving in coils, that a shorter rope of perhaps 120 feet would overall be more useful, economical, and convenient.

RELAX YOUR MIND, RELAX YOUR MIND. YOU'VE GOT TO RELAX YOUR MIND...

We could easily end here, having said a great deal already, but a few further implications demand notice at least. The use of nuts which begins by trying to solve some pressing environmental problems really ends in the realm of aesthetics and style. We won't pitch the aesthetics at you, only urge it once more to your attention. The most important corollary of clean climbing is boldness, a trait long recognized and respected by, you guessed it, the British climbers.

Where protection is not assured by a usable crack long unprotected runouts sometimes result, and the leader of commitment must be prepared to accept the risks and alternatives which are only too well defined. Personal qualities - judgment, concentration, boldness - the ordeal by fire, take precedence, as they should, over mere hardware.

Pitons have their place in American climbing; aid would be very improbable without them, and many free routes will continue to need them as well. Leaving aside for now the problem of whether and how, and where they might be fixed to save the rock, we might speculate that their use in the future may be reduced to the more difficult routes. When going where cleanliness has been established, the climber may leave his pitons home and gain a dividend of lightness and freedom; but if on new ground, or the not yet clean, he can treat this unsavory equipment as the big wall climber does bolts, and leave them at the bottom of his rucksack, considering the implications as he brings them into use. There will be room for almost clean climbs that use few pins, but fixed ones, so carrying pins will still be necessary.

Using pitons on climbs like the "Nutcracker" is degrading to the climb, its originator and the climber. Robbins must have been thinking of that climb when he wrote, "Better that we raise our skill than lower the climb." Pitons have been a great equalizer in American climbing. By liberally using them it was possible to get in over ones head, and by more liberally using them, to get out again.

But every climb is not for every climber; the ultimate climbs are not democratic. The fortunate climbs protect themselves by being unprotectable and remain a challenge that can be solved only by boldness and commitment backed solidly by technique. Climbs that are forced clean by the application of boldness should be similarly respected, lest a climber be guilty of destroying a line for the future's capable climbers to satisfy his impatient ego in the present - by waiting he might become one of the future capables. Waiting is also necessary; every climb has its time, which need not be today.

Besides leaving alone what one cannot climb in good style, there are some practical corollaries of boldness in free climbing. Learning to climb down is valuable for retreating from a clean and bold place that gets too airy. And having the humility to back off rather than continue in bad style - a thing well begun is not lost. The experience cannot be taken away. By such a system there can never again be "last great problems" but only "next great problems."

Carried out, these practices would tend to lead from quantitative to qualitative standards of climbing, an assertion that the climbing experience cannot be measured by an expression of pitches per hour, that a climb cannot be reduced to maps and decimals. That the motions of climbing, the sharpness of the environment, the climber's reactions are still only themselves, and their dividends of joy personal and private.

After going as far with natural protection, and criticizing bolts in their turn as well, we must finally admit to still being, after all, a manufacturer of pitons. We are proud of our pitons and continue to refine their design and construction. If technical rock climbing in places as Yosemite were still confined to the handful of residents and a few hundred occasional climbers who bought and used our first pitons then the switch to clean climbing would be purely a matter of individual preference for the aesthetic opportunities it offered, for silent climbing, lightness, simplicity, the joys of being unobtrusive.

But the increased popularity of climbing is clearly being felt in the vertical wilderness, and if we are to leave any of it in climbable form for those who follow, many changes will be necessary. Cleanliness is a good place to start.
