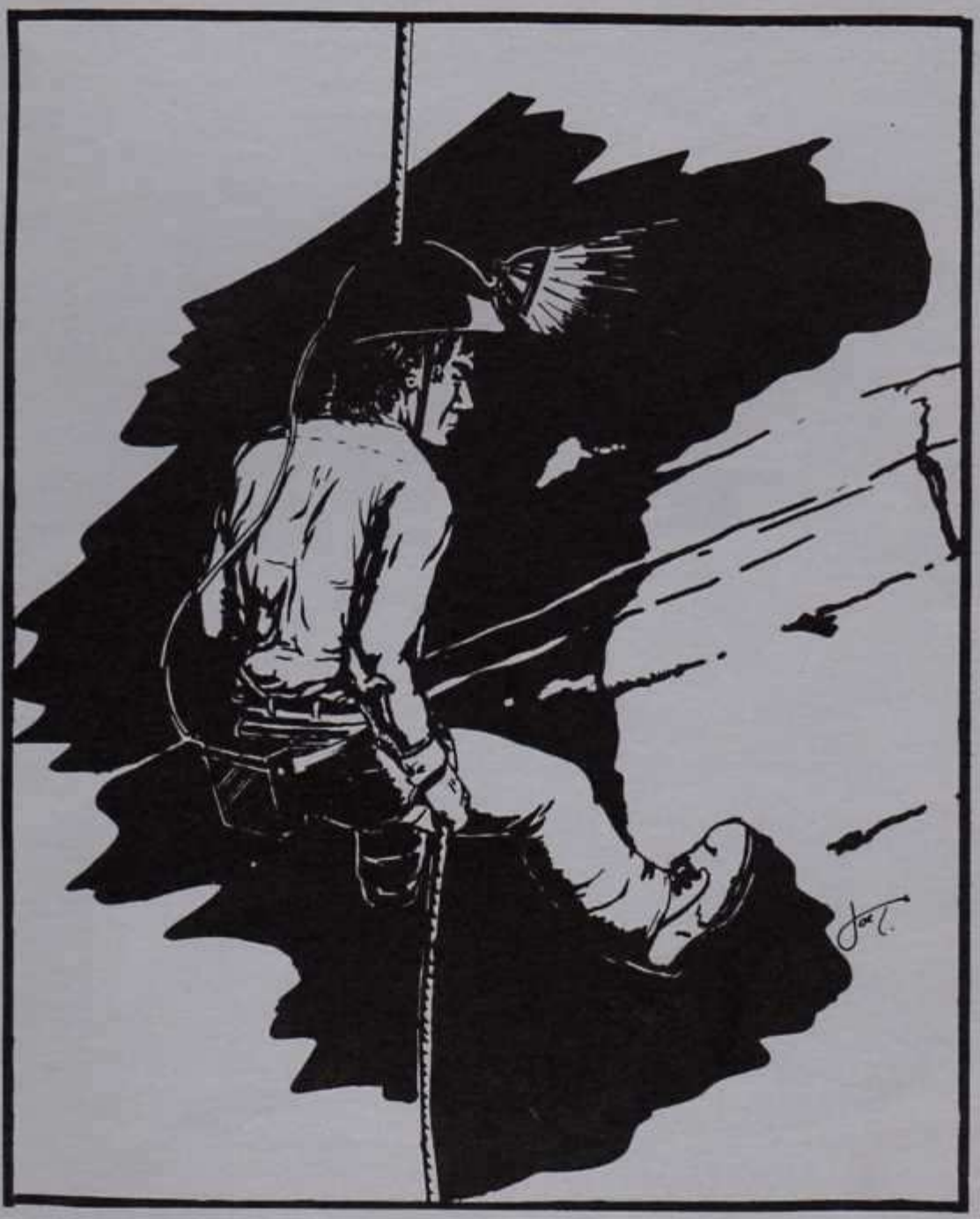
NYLON HIGHWAY 14

...especially for the vertical caver



Swooping in from all over...

Letters to the Editor

3412 Hutchens Ave., SE
Huntsville, Alabama 35801

Dear Sherry,

I respectfully disagree with Darrel Tomer's letter to the editor (NH #13).

I have a good knowledge of track events and climbing events. To compare the 100-ft. climb to the 440-yd. run is a mistake. An experienced climber will never get as good a 440 time as his 100-ft. climbing time. However, I don't mean the very young (under 12), because they can run well before being able to climb well. I am speaking of a mature climber.

An example is Bill Stone's world record of 28.1 seconds. It is nowhere near the world record of the 440 (400 meters) time of 43.86 seconds. So, for a trained experienced climber, the 100-ft. is a sustained sprint.

As Darrel says, the 400-ft. climb is an endurance event. But people don't realize that the 400-ft. just barely qualifies. The 400 is like the mile, 50%-plus anaerobic, if raced; whereas a pure endurance event would be 90% or better aerobic. This is why I am totally against anything less than 400 ft. for an endurance event. Of course, more than 400 ft. would be better, but this would take too much time.

Who says that because we are going metric, all our old records will be lost? This is why we will have the 30m and 120m, which are close enough to the old distances to project times to see if an old record is broken.

This is our contest. We don't have to "dump" all past records and I certainly don't plan to.

There is an attitude to change the contest to please the Europeans. I say the contest is ours. I welcome these fellow cavers to participate, but I don't intend to throw away 13 years of work to please them. They will go back and set up their own contests any way they wish.

Bill Cuddington

2318 Jane Lane
Mountain View, CA 94040
September 19, 1981

Sherry Graham
5001 Elaine Ave.
Raleigh, NC 27604

Dear Sherry:

I'm enclosing a copy of an article I originally sent to Cheryl Jones back in October 1979:

This is in response to the letter from Brian Pease in Nylon Highway #10. In his letter he recommends attaching a carabiner to the seat or seat/chest harness to prevent you from falling over backwards if your shoulder cam should fail.

We have used an alternate idea for some years which solves the falling backwards problem and offers other advantages, too. This is a safety Prusik loop that rides above the shoulder or chest Gibbs. The other end is connected to a locking carabiner attached to your seat harness. For this purpose we use a six to eight mm Perlon accessory cord tied into a loop with a Grapevine (Double Fisherman's) knot. Total length of the resulting loop is about 8 to 10 inches in our case. This can be adjusted depending on your height or length of your trunk. The exact length isn't terribly critical, but it should be just long enough so the knot will be in easy reach when you sit down in the resting position.

When climbing, the Prusik knot rides above the upper cam with no apparent friction at all. When you want to rest, you simply sit back down so that your weight is supported by the safety sling. To relieve pressure on the chest, we often loosen the shoulder cam slightly so that we're leaning a little bit further back and there is no pressure on the chest.

This "fourth" point of contact with the line may seem like one too many to some people. However, we have found it to be extremely useful when crossing lips. The technique we use is to take the upper cam off the line and push away with the hands so that the Prusik knot can be slid above the lip. The other common method I'm sure most are familiar with is to carry a separate safety Jumar attached to your seat sling for this purpose. There are times when that works better than trying to slide the safety Prusik knot up.

However, in our experience, the loop works quite easily and has the virtue of not requiring another piece of equipment except for really difficult lip crossings.

• • • • • •

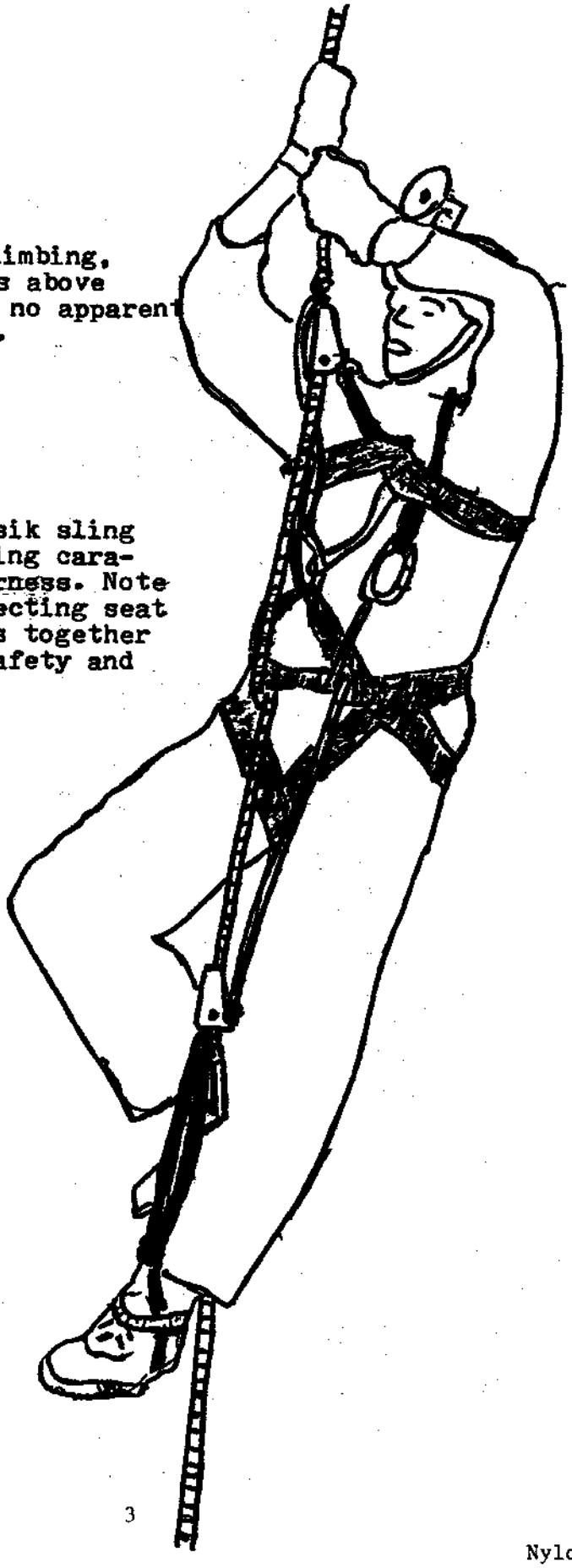
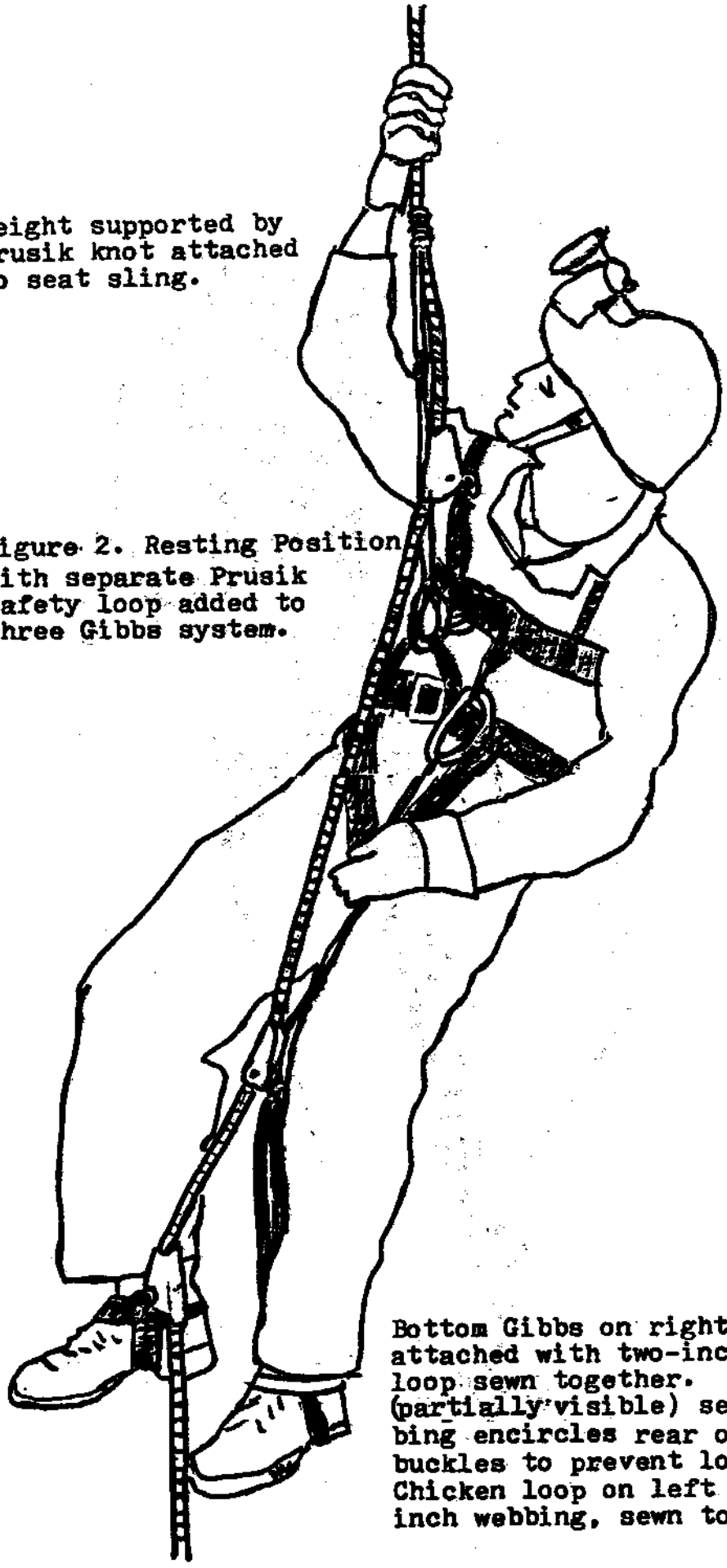


Figure 1. When climbing, Prusik knot rides above upper Gibbs with no apparent friction on line.

Other end of Prusik sling attached to locking carabiner on seat harness. Note short sling connecting seat and chest harness together for additional safety and comfort.

Middle Gibbs is floated with shock cord to chest harness.



Weight supported by Prusik knot attached to seat sling.

Figure 2. Resting Position with separate Prusik safety loop added to three Gibbs system.

Bottom Gibbs on right foot attached with two-inch webbing loop sewn together. Chicken loop (partially visible) sewn to webbing encircles rear of boot and buckles to prevent loosening. Chicken loop on left foot is one-inch webbing, sewn together.

We would appreciate hearing about the experience of other vertical cavers who have used this Prusik safety loop. Several of us in the San Francisco Bay Chapter use this method regularly. We learned it originally from John Tinsley when he joined our group after moving here from Colorado where he had picked it up.

Sincerely,

David R. McClurg
NSS 4608F

3412 Hutchens Ave., SE
Huntsville, Alabama 35801

Dear Sherry,

The "Special" Division I sent in was left out of the contest results in the last Nylon Highway.

The Special Division is for climbing systems that do not fall into the Mechanical or Classic Three Knot divisions. These systems must still be safe and practical caving rigs. This is an open division with no records or age groups, but a spot to evaluate a "hybrid" system.

All of the following climbs were mistakenly printed in the Highway as being in the Classic Three Knot division, so any records declared are voided.

SPECIAL DIVISION

100 ft.

1. Chuck Wilkinson	2:16.6
2. Jim Rodemaker	5:17.2
3. James Wells	9:14.6

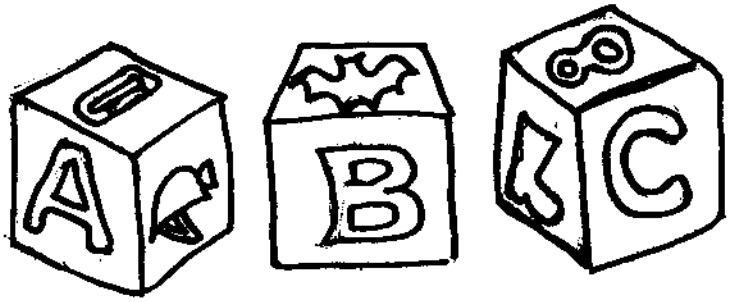
400 ft.

1. Chuck Wilkinson	22:20.8

Sincerely,

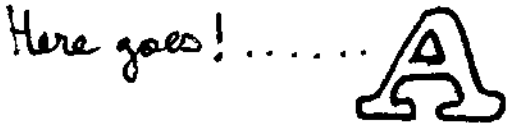
Bill Cuddington

(Editor's Note: I'm sorry I missed the Special Division....I seem to have typed my results from the wrong sheet of paper while thinking fairly hard about something else. Those of you who keep track of these things, please update your NH#13, and let me know if you find any more errors.)



The following is more or less of an alphabetical index to Nylon Highways #1 - #14. Everything is cross-referenced to whatever degree seemed sensible at the time. For example, should you get a powerful nocturnal urge to construct an etrier (weirder things have happened, I guess), you might remember that Seaman's etrier article was called "Construction and Use of an Etrier", to be found under the C's; or, failing that, you could find it under E for etrier. Either technique would lead you unerringly to NH#9.

I also announce a contest....not the Section's, not the Highway's, just mine. The winner will be whoever comes up with the best item of vertical caving gear or technique that begins with an O, U,X,Y, or Z. I'm not going to tell you what the prize is, but it does not begin with an O,U,X,Y, or Z.



ASCENDERS
  Spring-loaded Gibbs Repair - Hall - #1
  A Word About the New Ascender 5000 - Schiflett - #11
ASCENDING SYSTEMS
  The Davison System - Davison - #2
  Double Bungee Gibbs Ascending System - Williams - #14
  Floating Knee Rig Improvements - Moss - #12
  Mitchell Rig Modifications - Moss - #12
  Pygmy Prusik System - Smith - #2
ATTACH Three for Safety - Smith - #2
AUSTRALIAN Foot Harness - Montgomery - #6

BACHMANN Knot, The: Let's Tie it Right - Smith - #3
BAG It - Davison - #4
BEYOND the Seventh Tooth - Davison - #4
BOBBIN, The - Torode - #3
BOLT Installation Made Easy - Isenhart - #5
BOLTS - Isenhart - #5
BOTTOM Belay - Isenhart - #5
BRAKE Bar Design - Seaman - #9

Q

QUESTIONNAIRES: - Status of Vertical Caving - Smith - #1

R

RACKS
   Design of Specialty Racks - Storrick - #9
   Friction Capabilities of - Moss - #8
RAPPELLING
   A Guide to Rappelling - Padgett - #3
   Temperature Studies - Isenhart - #4
RELIEF Strap - Smith - #2
RESCUE
   Pit Rescue - Smith - #2
   Single-Rope Solo Rescue Techniques - Hall - #10
RIBBON Eye-Splice - Davison - #7
RIGGING
   How to Rig a Vertical Pitch - Isenhart - #2
   Nasty Breakover - Pitthan - #2
   R. the Floating Cam System - Smith - #1
   R. the Foot Cam - Smith - #2
   R. the Tyrolean Traverse - Jones and Isenhart - #12
   Strength of Your Rigging - Schott - #5
ROLLER Cam - Isenhart - #1
ROPES
   Care and Feeding of Nylon Rope - Isenhart - #1
   Comparison of Strength Retention (Goldline) - Cordage Group - #11
   Development of a Caving Rope - Newell - #5
   Shock Strengths of Some Caving Ropes - Cowlishaw - #10
ROPE Pads - Jones - #11
ROPE Pads - Smith - #1
ROPE Sliding - Wheee-Ha! - Torode,contrib - #12

S

SAFETY: Attach Three for - Smith - #5
SEAT Sling
   In Search of a Better - Howie - #4
   The Relief Strap - Smith - #2
   Sewn Seat Slings - More Tests and Results - Thrun - #7
SHOCK Strengths of Some Caving Ropes - Cowlishaw - #10
SINGLE Rope Solo Rescue Techniques - Hall - #10
SKYHOOKING - Jefferys - #14
SPELEAN Shunt Technique - Toomer and Welch - #9

~for lack of X's, Y's, and Z's,

that's the end of the INDEX, folks!

BOING!

(The Double Bungee Gibbs Ascent System)

by Kathy Williams
NSS 14410

Remember the bungee jumpers who plunged off of the Golden Gate Bridge? They used a single bungee ascent system without Gibbs ascenders. Those who get sick with the violent elastic rebound of the single bungee system might be interested in the double bungee system which allows someone to ascend at a walking pace.

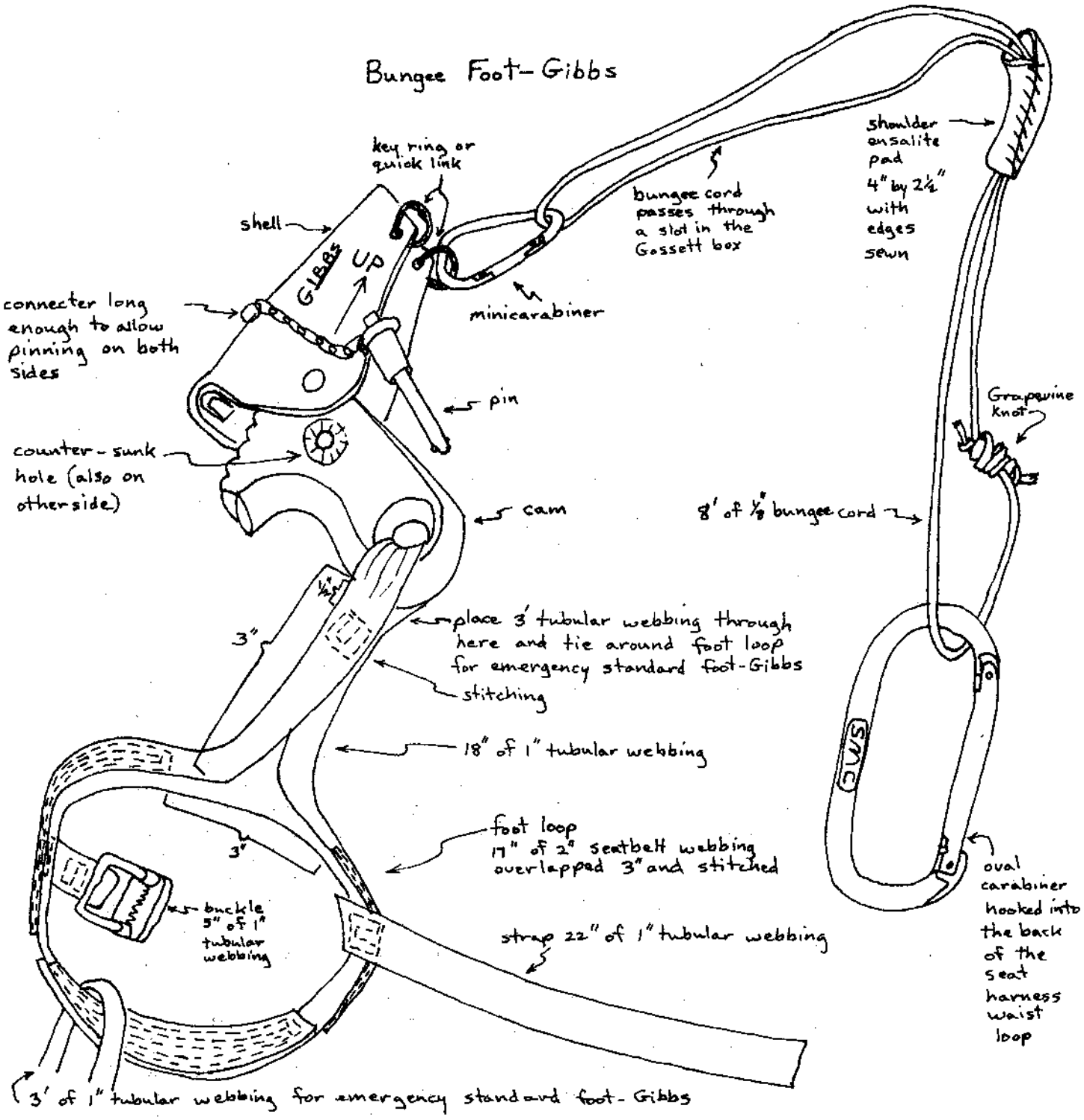
The double bungee Gibbs ascent system is of great use to people who want to ascend solely with leg power and who have experienced their ankle turning and spraining from the standard foot-Gibbs during

ascents greater than 500'. The ascent system consists of a bungee foot-Gibbs, bungee knee-Gibbs, chest Gossett box, and a Gibbs (use the spelean shunt from your descent system) riding on the Gossett box and connected to a seat harness. I've modified the bungee foot- and knee-Gibbs to be used on either foot so that uncomfortable stress can be alternated.

Since all the ascent equipment is standard except for the bungee foot-Gibbs, I'll describe only the bungee foot-Gibbs in detail. I'll begin with modifications of the Gibbs ascender. Both sides of the hole for the pin of the Gibbs cam should be counter-sunk to allow easy engagement of the pin from either direction. The cam pin will knock against the leg if it is pinned through the wrong side. Be sure the connecter (parachute cord is good) from the Gibbs shell to the pin is long enough to allow pin emplacement from either direction. Place a small key ring or quick link through both of the small holes at the top of the Gibbs shell so that the bungee cord can be hooked to the side that gives the best angle during climbing. Hook a mini-carabiner through one end of the bungee cord enabling the Gibbs ascender to be clamped to the rope before clipping the spaghetti-like bungee cord to the key ring of choice at the top of the Gibbs shell.

The bungee cord should be about 8' with a diameter of 1/8" (1/4" is also fine...I've heard no strong preference for either) and tied at the ends with a grapevine knot so that it is doubled. A doubled bungee cord provides more elastic strength and lasts longer than a single piece. It goes from the minicarabiner hooked to the key ring at the top of the Gibbs shell through one of the two slots of the Gossett box and over the shoulder to a carabiner hooked to the back waist loop of your seat harness. By the way, the knee-Gibbs bungee cord needs no Gossett guidance unlike the foot-Gibbs bungee cord. Make a pad for your shoulder where the bungee cord presses in by cutting a 4" by 2½" piece from an ensalite pad and whip stitching two edges together with a hand stitcher. The doubled bungee cord can be pushed through the circular pad and positioned at will.

The Gibbs ascender is connected to the sewn foot loop (about 17" of 2" seatbelt webbing overlapped 3") fitting your largest caving boots by 1" tubular webbing threaded through the Gibbs cam and sewn on either side of the foot loop spanning 3" from the top of the foot loop to the bottom of the Gibbs cam (use 18" of tublar webbing). Start stitching the tubular webbing that goes through the Gibbs cam to the foot loop 1½" down the side of the foot loop from the top center of the foot loop which allows the cam to move to the side of your foot closest to the rope while your weight is supported equally by all parts of the foot loop thus eliminating the problem of the foot being turned on one side. Sew the doubled webbing together ½" below the Gibbs cam so that in the emergency where the bungee cord breaks, a 3' piece of 1" tubular webbing can be threaded through the space between the cam and the stitching and tied around the foot loop



creating the standard foot-Gibbs. For a chicken loop sew on a strap (22" of 1" tubular webbing) and a buckle (with 5" of 1" tubular webbing) on each side of the foot loop and fasten around the ankle.

That's all. The double bungee Gibbs system makes rope climbing easy in free-fall pits. Only fanatic yoyos choose the single bungee system without the Gibbs. Boing.

SKYHOOKING

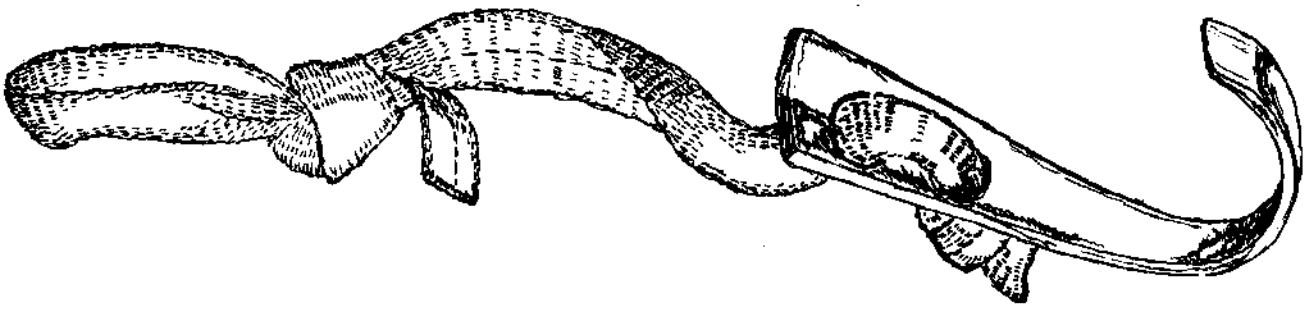
ARTIFICIAL AID IN THE NETHERWORLD

BY BOB JEFFERYS
ILLUSTRATIONS BY JOHN JEFFERYS

As any caver who has labored with a bolt driver knows, setting bolts is hard work. It absorbs large amounts of the caver's time and energy. When they are used as artificial aid on a wall climb to make vertical gain, the number of bolts needed can be awesome. I would like to relate to the reader a timesaving technique I have employed successfully on extended multi-pitch climbs in two Mexican caves: Rio Iglesia and Li Nita. Unlike other methods that require heavy cumbersome equipment such as scaling poles, pneumatic rotary hammer drills, electric drills, or climbing platforms, skyhooking involves gear of negligible weight and bulk.

The Logan skyhook was originally designed for the big-wall climbers of Yosemite Valley who were pushing the limits. In this application, the skyhooks are balanced precariously on minute ledges that may prove to be too small to support the climber's slippers or fingertips. This is a practice most cavers will want to avoid. A more prudent approach is to drill a hole more or less 3/8" deep and insert the hook. You now have a stable aid piece to stand on. On a shelf, drill straight down (as shown in Figure A); on a slope or vertical wall, angle the driver about 45 degrees down from the face (as shown in Figure B). Occasionally, a natural pockmark or crack will also safely hold a hook. When found, this is a welcome gift.

The version of skyhook I have been using is marketed by Yvon Chouinard's company, The Great Pacific Iron Works. He has dubbed it the Cliffhanger. They are readily available and can be purchased directly from Chouinard or from REI. A minimum of two are needed, at



CHOUINARD CLIFFHANGER
Is there room for improvement ?

about three dollars each. Cliffhangers will fit snugly in a 7/16" hole bored by a 1/4" self-drilling anchor like the Phillips Redhead. This makes for a copacetic arrangement, since this is the most common type of bolt carried into caves today.

While the skyhooking technique is relatively safe when used on sound rock, it should never be relied upon to take a leader fall. It is strictly an aiding trick. I feel, though, that the design could be improved upon enough to hold a short fall. Beware - there is an inherent tendency to feel overly secure and put too much distance between solid protection. On the Li Nita dome climb, I never moved more than ten feet above a bomb-proof piece and still averaged over ten vertical feet per hour on sheer and overhung wall. Good luck, safe climbing, and remember: when you can't go down, look up.

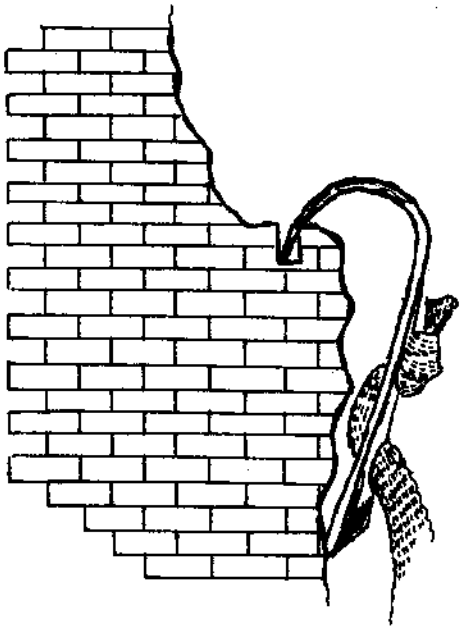


Fig. A

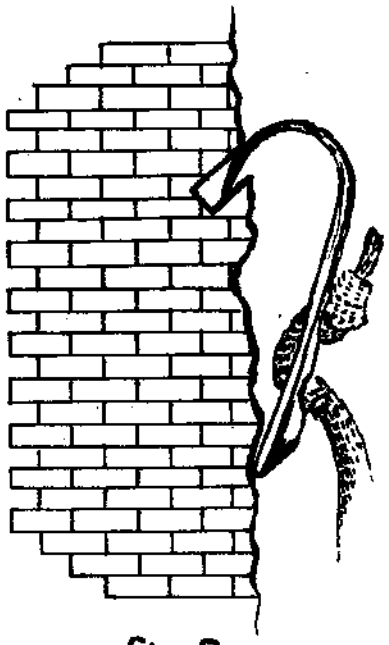


Fig. B

(A Note from your cautious - and still alive - Editor: Please take careful note of Bob's remarks on the limitations of this technique. Lots of rock climbers - the sunshine kind - do and get away with lots of things that caving climbers often are well advised to avoid, and one of the big reasons is the comparative soundness of the rock and the comparative difficulty, in caves, of judging its soundness. Bolting, hooking, and hanging your way up is certainly a way to go, for those with the skills, but proceed with caution.)

GOODBYE FOR NOW,

AND GOOD CAVING -

....from an Editor going down for the third time ....

Nancy