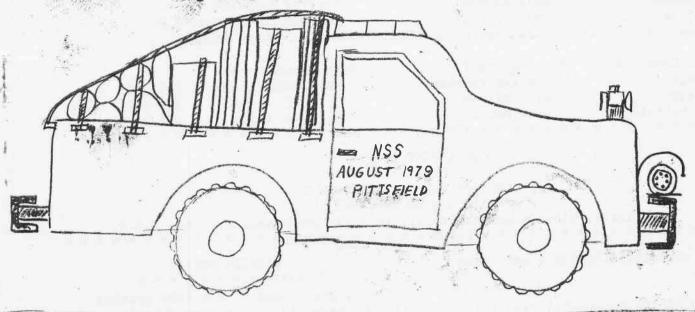
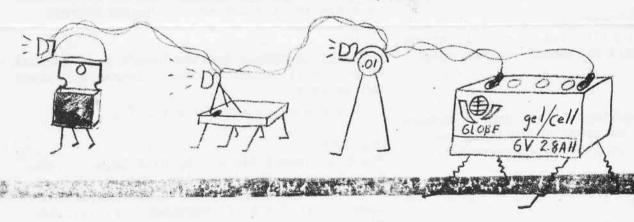
COG SQUEAKS JUNE 1979 NO. 22



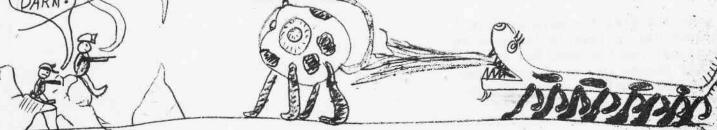
THE ELECTRIC CAVERS



Seems like our cave trips have been spoiled by One Goddam thing after another.

OH

DARN:



THE CENTRAL OHIO GROTTO OF THE NATIONAL SPELEOLOGICAL SOCIETY

Chairman: Bill Walden 223 Fallis Road Columbus, Ohio 43214

Jake Elberfeld

* * * * * * * * * * * *

Vice-Chairman: Dale Harmon 1338 Republic Columbus, Ohio 43211 Amanda, Ohio 43102

Sec'y-Treas. & Grotto Address: Phyllis Redshaw 3085 Cedarhill Road S.W.

Executive Committee: Squeaks Staff: Paul Unger Phyllis Redshaw Dean Redshaw

Bill Walden Paul Rowley

Trip Coordinators: Cols.-Bill Walden

268-5865 K. Smith 239-9536 Dayt.-P. Unger 434-0133

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Congress of Grottos Agenda (cont. from page 53.

9. If the NSS is successful with its current membership drive for Jan. 1981. membership dues should be reduced.

Yes No

10. Since spelsological surveys can and so lead to publication of cave locations, the NSS should no longer charter them.

Yes No

11. The requirement that grotto members should live in close proximity to each other to be considered a grotto be dropped.

Yes No

12. The NSS should set up a system in which a grotto can get a letter of thanks or of regrimand sent from the NSS without waiting for a BOG meeting to act on the subject.

Yes No

* * * * * * * * * * * * * * * * * *

Again with the plea for more articles! The squeaks has an insatiable appetite for articles, and the menu has been slim. Our thanks to all of those who have come through for us; as for the rest of you - get out and do some caving so you can write about it!

MEETING NOTICE * * * * * * * * * * * *

There ain't none. The July meeting will have been held by the time this gets out. Meeting notices were sent separately to local members, since we are late (again) with the Squeaks. There will be no meeting in August because of the Convention. Anyone interested in attending the Convention should contact Bill Walden.

The September meeting hasn't been decided on yet, so if there are any volunteers (Jake?) let us know.

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CONTENTS: The Crackerneck Witch - by Paul Unger ...46 Trip Report - Skan's Valley, Minton to Scowling Tom's - by E. Hovemeyer..47 Cave - Part 2 - by B. Warthman48 Electronic Caver - by Bill Walden49 Women in Caving, Part 2 - reprint51 Agenda for Congress of Grottos52

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THE CRACKERNECK WITCH

BY THE SPELUNGER

The weekend of May 19 brought together six cavers to again explore the newly discovered Cabin Creek System. Since the contingency from the Salt River Grotto didn't show, we decided to wait until noon Saturday before going down without them. As it turned out, they never showed, their car being as faulty as their cave equipment. But they were not needed for this report.

While waiting for them to show, we decided to hike around Phil Erisman's farm to see if we could find water, the only thing the farm lacks in any great quantity. We were walking along the road by his place when a car pulled up and stopped, apparently to shoot the breeze, or maybe he spied the six-pack clipped to my belt. The driver turned out to be Orville Brown, the former owner of the Ungerground Estate. During the ensuing conversation while "wetting our whistles," the purpose of our presence was told. Orville said if there was water there, he could find it, because he was a "Water Tracer." I can barely remember a "water witcher," as they are called up north, coming to my dad's and finding the spot to drill for water. Yep, there was water where we drilled.

So off we went, six cavers following a Pied Piper with his wishbone, all of us skeptical, except Orville. It didn't take long. The stick started to bend, and with a little maneuvering it pointed straight down, pointing to the spot where, at a depth of 12 feet, Orville said water could be found. Well, that was too much for Chuck; he had to try, but try as he might, the stick never budged. He tried different hand positions and eventually broke the stick. I persuaded Orville, who was enjoying Chuck's frustrations and our razzing, to cut me one, which he did. Off I went, with six cavers hot on my case now. "Are you making it bend?" one soon asked. "Naw," I said, "I'm trying to hold it up." But bend it did. I could even feel little jerks, and as I passed a spot it pulled straight down, actually twisting the stick in my hands. Walking on past, the stick reared back up nearly to its original position, and went right back down when I returned to the spot.

Now it was my brother Mark's turn. His stolid expression expanded into an ecstatic grin when he felt the pull as the stick began to bend. By now Chuck was on his fifth stick, having broken 4 others in his unsuccessful endeavors. He threw down #5 in disgust, so I picked it up and proceeded. Now, #5 would not be described as a stick, but rather as a fork-shaped log. With difficulty I put the required twist in it. Downward went the point with a torque sufficient to actually turn the stick in my hands. Squeezing as hard as possible would not prevent it from turning in my hands. I do not know how to explain this phenomenon. I can only attest to the fact that it does work. Subsequent investigations using this method above known water, i.e., water pipes, springs, tile ditches, etc., have greatly increased my confidence. I'm even beginning to learn depth and quantity predictions. But there is something far more important to cavers than locating potential water sources.

Orville says that this method of "water witching" can be used to locate caves!, and that the size and depth of passages can be accurately predicted. Orville related how he had located several caves this way; we've been in one at Rocky Point which had contained 32 Indian burial sites. While I haven't checked this out yet, Orville has promised to teach me the method. A trip to Sally Turpin should prove to be a good test. Orville has never been found to overexaggerate.

* * * * * * * * * * * * * * *

NORTH COUNTRY REGION MEETING

Hosted by the Windy City Grotto, the NCR spring meeting will be held July 14-15 at Illinois Caverns, a few miles south of Waterloo, Illinois. There will be other activities and caving, at a cost of \$5. Beer on tap costs a dollar a night. Early registration is urged, especially for the banquet. Registration forms can be had from Phyllis Redshaw, or contact Larry (continued on page 47)

TRIP REPORT: SLOAN'S VALLEY CAVE - MINTON TO SCOWLING TOM'S

by Eric Hovemeyer

On Saturday, May 19, Chris Bruck, David Findsen, Shirley Findsen, Eric Hovemeyer, Greg Kalmbach, Mary Kalmbach, and Ann Petit made a six-hour trip through Sloan's Valley Cave, entering at Minton Hollow and exiting at Scowling Tom's.

The journey through the Big Passage was uneventful. Although we noted evidence of recent flooding, the Duck Under and Niagara Falls were essentially dry, and Dread Pool could easily be skirted without getting one's Station. From there to Scowling Tom's feet wet. We climbed up into Geiser's Dome: Greg and I noted that it was considerably drier than the last time we had visited it several years ago. In the north end of the Big Passage we found that Lake Cumberland has reclaimed the lower level which leads directly to the drain at the bottom of White Grotto Hill. We took the Carmel Passage. turned left at Canoe Rock, and found our way through the breakdown to White Grotto Hill. Looking down the Hill we again noted that Lake Cumberland has returned to the cave an absence of five years. after a five-year absence; the low-level easy connection routes through Grand Central Spagetti (sic) appear once more to be a thing of the past.

We continued up through White Grotto to the Lunch Room and then dropped down through Connection Dome. From the bottom of the waterfall drops in Connection Dome, instead of taking the gooseneck canyon route, we went through the hole in the wall and immediately turned left. This passage 1ed through a short, tight, dry bellycrawl to a hands-and-knees crawl which ended at the top of a vertical but climbable drop into a breakdown room. A short crawl at the bottom of the drop leads into a lowceiling room containing a lot of mudfill. This room has two twenty-foot pits, and in order to continue one must cross over one of the pits. Lake Cumberland is now flooding the bottom of both of these pits. Greg and I did a Green ceiling traverse over one of the pits and checked the passage (?) on the other side; deciding it was too small and gross, we re-crossed the first pit, and everyone went over to the second pit. David 60637, phone (312) 684-4306.

and Greg and I crossed this pit and crawled to a junction with the gooseneck canyon which we followed back to the bottom of the waterfall drops in Connection Dome. The others did not want to do the pit traverse and complete the loop which David, Greg and I made, so they backtracked and rejoined us where we had begun the loop.

Again, instead of taking the gooseneck canyon route, we went through the hole in the wall but immediately turned right and followed the arrows that point toward Scowling Tom's. Soon we were back to the main drag: through the Key Hole, Mud Tube, and Andrea's Bane to Grand Central Junction and thence to Scowling Tom's Entrance via the Meatgrinder, the remainder of our trip was entirely unremarkable.

* * * * * * * * * * * * * * * *

Eric submitted the above article partly in response to my pleading yelps for more articles for the Squeaks, and pointed out that this makes note of the return of Lake Cumberland to Sloan's Valley after

CAVE (continued from page)

under the evil curse that dwells in the hole you foolishly entered. Now he must die, and you must pay for the evil you have brought upon us. For this foolish and dreadful act that has turned to tragedy there can be no forgiveness."

So it came to be that those four unfortunates were expelled from the village and told never to return, and the cave was forever sealed by a work party that was assigned this duty by the tribal chief lest any further acts of foolishness bring more serious consequences for the entire community.

(To be continued)

* * * * * * * * * * * * * * * * NORTH COUNTRY REGION MEETING - (continued) Cohen, 5608 South Maryland, Chicago, Ill. CAVE

PT. 2 BY BRUCE WARTHMAN

The cradle to grave story of a cave -

In a hollow not very far from the cave a settlement of people took residence along the river where a small stream flowed into it. They were a self-sufficient community whose people had straight black hair and reddishbrown skin. Their lives were simple yet peaceful as the men went out to hunt and the women stayed home to care for the children.

Some twenty years after the settlement was founded, two teenage boys were out hunting for small game when they came to the stream and followed it upstream. They came to a cliff where water flowed from a hole just big enough to crawl through. But going into the hole was taboo since the settlement's people were superstitious about the evil spirits associated with the strange winged creatures that flew out just before dark.

But the two boys, fearless of what misfortune may come to them, defied their father's command that the cave not be entered, and they broke the taboo as they came at night with lighted reeds and crawled in. They entered through the low entrance and came into a walking passage. They walked for a long way, sometimes stooping and sometimes climbing over rocks. They came to a climb. Using their feet and hands as well as their backs, those brave boys climbed straight up until they got up over four times their height. Then there was crawling to do. Finally they came to a tight spot. They squeezed through and beheld a sight that was awesome and fascinating.

They were in a tremendous room full of piles of breakdown. Their feeble reed torches could only light up a tiny area while the rest of the room receded into blackness. But not far ahead they could dimly see a magnificently fluted stalagmite so high that the top was not visible.

Thus the daring boys discovered their own little world of beauty and adventure. They walked around the big room and saw tremendous formations. There were small rooms to the side of the big one and each room had sparkling gypsum flowers and crystals. In the in doing so we would be placing ourselves

floor next to the wall there were pits but they were too dangerous to go down. Several passages took off from that large room and the two explorers neither had the time nor the courage to risk getting lost while exploring them.

They went back to the village and told their friends about their discovery. Soon there was a larger gathering of explorers going into the cave. As they checked every passage they could find. they left behind bits of charcoal and footprints in the mud. One explorer tore his loincloth and left a shred of fabric in a tight place. Another lost a sandal which fell down a pit.

As time passed, more and more of the cave was explored. Mor large rooms and passages were found. Some lucky ones. and there were few who were not, were awe-inspired over the sparkling scenes of colorful flowstone and pure white gypsum formations. They saw rimstone pools having calcite encrustations over the crystal clear water. It was an underground paradise, a magical kingdome of nature, where beauty of such magnitude could be found nowhere else.

But all good things do come to an end, and so it was with the underground kingdom. One day a group of the tribe's boys walked into the village with a sad and frightened look on their faces. Five had gone into the cave and now there were only four. To the village chief they told their story: They had gone into the cave as they so often had done before, and explored farther than anybody had gone before. Then one of the boys fell down a deep pit while trying to climb down it. Help was desperately needed.

But the tribal chief thought otherwise, and to the troubled boys he said, 'You boys were very foolish to have broken our taboo and gone into the cave while risking your lives just on a lark. You have violated a law which we made to protect our people and have become a victim of the evil from which we try to protect you. You have done wrong and your action places shame on all our people. We cannot help your trapped companion because

(continued on page 47)

THE ELECTRONIC CAVER

CONTROLLING THAT ELECTRIC CAVE LAMP

BY BILL WALDEN

Once cavers get somewhat older, have a family, and as a result cave less, they often turn their interests toward other activities or toward "neater" cave gear.

I'm a confirmed carbide caver who, for those shorter, less involved cave trips, has been using an electric lamp for two years. The bulb I've been using is a 4.5 volt, 1/2 amp bulb which I run at 6 volts. This produces a good bright light suitable for large passageways. With the battery I use, I can get over twelve hours of good light.

The system works great. I've never experienced a failure. The present bulb has in excess of fifty hours. For safety, I carry two spare bulbs (one a low current bulb, the other the same type as already described), repair parts, and my trusty Autolite. However, as being one of "those" described in paragraph one, I have felt the urge to make it better. After all, sunlight in a tight crawlway is a bit blinding!

Therefore, I designed a lamp dimmer which is not wasteful, cave-proof, cheap, and simple.

Simple!

Not so. There are some considerations.

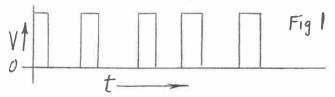
1) Let's stretch the energy source as far as possible. 2) The proposed dimmer must fit in the Justrite electric lamp housing. 3) The system must be cave-proof.

There are several ways to control the lamp brightness. 1) The most obvious is a simple with a duty cycl resistive dimmer. Simple, but the worst choice. The resistor will be dissipating energy as well as the lamp. We don't want to waste energy. 2) A voltage regulator based on a transistor; this is almost as bad as #1. It is current = 515 madesirable to have the lamp itself consume all the energy delivered by the batter. There is a way to do this. 3) Switch the lamp on and off quickly and continuously. The relative frequency but of brightness is determined by the ratio of the for the record, controller surprise the several ways to controller with its controlle

System 3 is very simple. I have this

flywheel which drives a rotary switch. The switch has a sliding control which allows me to vary the "on" contact from 162° to 342° of the wiper path. The flywheel drives the switch. All one has to do is bring the flywheel up to 400 rps. The brightness of the lamp is then determined by the sliding contact. AT full spread of 342° the lamp burns at 95% full brilliance. At minimum spread of 162° the lamp burns at 45% full brilliance. With a flywheel Speed of 400 rps, the switching speed is fast enough that the lamp has no noticeable flicker. #Well, not really. But electronically that's they way it looks.

I based my lamp controller on a TI 555 timer chip. The 555 is capable of producing a very accurate time base which is dependent upon the circuit components. The output signal from the 555 is used to control an NPN high speed switching transistor. The result is the same as achieved by my imaginary flywheel-driven switch. The circuit provides a voltage as shown below in figures 1 and 2.



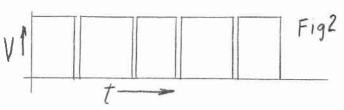


Figure 1. Voltage supplied by controller with a duty cycle of about 45%. Average current = 235 ma

Figure 2. Voltage supplied by controller with a duty cycle of about 98%. Average current = 515 ma.

As one can see, the lamp controller produces a pulsed voltage source of a fixed frequency but of varying pulse length. For the record, the same lamp without the controller surprisingly drew 515 ma. The controller with no load drew 12 ma. Visually one cannot tell any difference in brightness between the uncontrolled

ELECTRONIC CAVER (continued)

lamp and the controlled lamp at maximum pulse duration.

So what's to be gained?

For you hard-core cavers who enjoy pushing seemingly endless crawlways where little light is required, this controller will allow you to dim your light and achieve proportionately longer batter life.

For example, if you are using a five ampere hour battery and a 500 ma bulb, you can reasonably expect ten hours of light. Let's say you're in that tight crawlway where you have no need of sunlight; if you have my dimmer circuit, turn the duty cycle down to 50%. You still have enough light for that crawl but your battery life is doubled because it's on only half of the time. Or looking at the situation another way, you could switch to a 2 1/2 amper hour battery and still have ten hours of light.

Here is my circuit. It all fits on a circuit card which surrounds the stock lamp socket in the Justite.

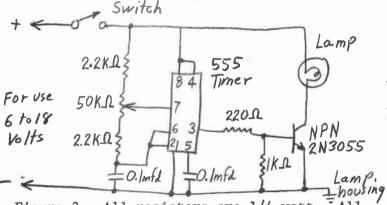


Figure 3. All resistors are 1/4 watt. All capacitors are 10 v.

The potentiometer controls the duty cycle from 45% to 98%. It mounts on the bottom side of the lamp housing. The transistor mounts on the backside of the lamp housing. No insulation wafer is required. The transistor case is common with the collector and one side of the lamp is connected to the lamp housing.

In my case, the original Justrite switch please contact me. broke. I replaced it with a miniature DPDT _ B switch with a center "off." This conveniently allows me to run the lamp with or with _ * * * * * * out the control circuit.

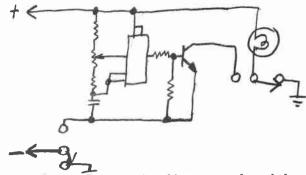


Figure 4. Shown in direct mode without the control circuit.

Should the electronic controller fail, I can run directly without the controller.

The entire circuit card is dipped in epoxy and thus sealed against moisture. Also, the card fits neatly around the lamp socket.

My personal investment in parts was less than \$3.00;

| 1 | 555 timer | | 1 Sec. 1994 - 2. | 5 | \$0.79 |
|---|------------|-----|------------------|----|--------|
| 4 | resistors | @ | .12 | | 0.48 |
| 2 | capacitors | @ | .15 | | 0.30 |
| 1 | potentiome | tei | - | | 0.99 |
| 1 | transistor | | | | 0.35 |
| | | | | | |
| | | | | \$ | 2.91 |

Your expense will be determined by your junkbox, ingenuity, snarfing ability, and other factors.

* * * * * * * * * * * * * *

NSS CONVENTION

The 1979 NSS Convention will be held the week of August 5 through 10, in Pitts-field, Massachusetts. For those of you who have never attended, the conventions have much to offer. There are sessions in speleology, caving techniques, safety, vertical techniques, contests, equipment and books to buy (often at reduced prices) and much continous fun. There are activities for almost all interests.

If anyone is looking for a ride, please contact me.

- Bill Walden

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WOMEN IN CAVING SECOND INSTALLMENT -

- Last month we published what turned out to be part 2 of a questionnaire about women's roles in caving. We heard from Janet McCormick, who identified our "snarf" as being from the Women's Section Newsletter of NSS, and she also kindly sent a copy of the first part, which we proceed also to snarf forthwith. She (and we) hope that these will promote some thought (and maybe even some discussion) about the roles both women and men play in caving, - Ed.

"The hottest topic among several of us at the convention was sex discrimination. so we'll start with that and move around to the others as they seem to fit into the list. Discrimination most often takes the form of some limitation imposed by someone other than oneself. Basically, what we would like to expose and explore is how many of these limitations are imposed instinctively by men on women, women on women, and individually on oneself. Separating safety in a cave from discrimination may be as long a tangle and as complicated by physique and mystique as women's and/or/vs. men's sports. Personnally, I look forward to the day that women don't have to be better than men to be equal. Nuff said. and confident of your own ability to tie and regue to or

a. Planning a trip

- 1. Are you in on initial discussions? the planning? Do you hold back because of ignorance? shyness? Do you want to be in on the planning or do you like to get in only on preplanned trips?
- 2. Are you involved in collecting equipment for the trip? Have you helped set up car pools or rides? Are you expected to plan the food? Do you wait until someone invites you to go along?
- 3. Have you ever been on a trip without men? Has a man ever eliminated you from a trip? If so, did you feel that it was justified? (safety rears its head here)

b. On the trip

- 1. Are women in your group allowed to drive? to navigate?
- 2. Who generally takes care of the equipment, cooking, setting up and breaking camp, sanitary facilities, cars, cave owner relationships and all the other details of caving and camping? Are you satisfied with the

division of labor? Are there times when you tacitly are expected to do camp chores while others do the "work caving?" Is there a set-up so that women with children can go caving (i.e., men or other cavers taking care of the children?

c. In the cave

- 1. Are you satisfied with those who have led trips that you have been on? Have you ever led a trip or considered it? Do you blindly trust your trip leader? Do you are are you allowed to make your own decisions as far as climbs, hairy situations, length of trip, or whatever, on your trip?
- 2. Have you been in a situation you considered unsafe? How did the trip leader react? Have you been in a situation antoher person considered unsafe? How did you react to that person?
- 3. How do you limit yourself/ are you limited? Are you satisfied with any training you might have had? Are you left out because of lack of training? Are you the victim of unsolicited aid? Do you limit yourself due to lack of confidence? fear? lack of equipment, stamina, or interest? Are you satisfied with your limits?
- 4. In vertical work, are you competent knots and rig equipment or do you leave it to others? Do you check their rigging to see if you are satisfied? Have you been trained to your satisfaction? Who took the time to show you the ropes? Who carries the equipment, decides when to use it, belays, climbs, rigs, derigs, ties the knots? Are you content with your role in these situations? Have you been in a situation where you would have liked a rope or handline? Would you carry that line for yourself? for another? Do you have the knowledge to get out in an emergency? Do the others in your party?
- 5. When you are in a party travelling at intrinsically different speeds do you try to go too fast for yourself to keep up? Do you expect slower persons to keep up with you? Who sets the pace? Who leads and who follows? Is it always the same?
- 6. Are you allowed any position in a mapping party? Who pushes virgin passages? Who decides when to lead?
- 7. Are you encouraged in any technical aspects of caving (mapping, photography,

WOMEN IN CAVING (continued)

geology, hydrology, archeology, biology, as well as do vertical work, pushing leads, finding new caves and cave digging?) Are you interested in any of these?

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OLD TIMERS REUNION (The Robertson Association)

OTR announcement was received, with preregistration forms. However, with cryptic mystery (or possibly exclusivism) all it says is that it will be held "same time and place as last year"- whereever that was.

If anybody is interested enough to want to find out about it, contact Bill Stringfellow P.O. Box 432, Dunbar, WV 25064. Maybe he'll clue you in.

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1979 Agenda for the Congress of Grottos

Questions which will be brought before the Congress of Gottos for vote by delegates to the NSS Convention are as follows: If you have opinions on any of these questions, make them known to members of our grotto who will be attending as delegates; better yet, plan to attend yourself and be a delegate from COG.

- 1. Should the NSS convention be planned to make a profit for the NSS? (choose one) a. \$1.00 per registrant (estimated
 - \$700 revenue)
- b. \$2.00 per registrant (estimated \$1400 revenue)
- c. \$3.00 per registrant (estimated \$2100 revenue)
- d. No profit should be produced.
- 2. Profit should be spent for:
 - offered for sale)
 - f. Purchase of caves and/or their maintenance
 - g. Financing of foreign expeditions under NSS auspices
 - h. Educational film (see Issue IV)
 - i. Research

Expenditures of Convention profits should be authorized by:

- J. Executive Committee
- k. BOG
- 1. COG
- 2. Is the use and publication of NSS numbers counterproductive to the goal of increased membership? Over the years numbers have become status symbols or relative indication of caver's experience. Open publication of numbers identified skill level to some. This may be a barrier to some unaffiliated cavers who might otherwise join the NSS.
 - A. Should the NSS discontinue the use of a membership number, except for internal office control needs. Yes No
 - Should the NSS offer a voluntary number system similar to personalized car license plates (i.e. numbers issued by member choice only) Yes No
- 3. The NSS should not support the systematic removal of cave names and localities from USGS topographic maps.

Yes

No

4. The NSS should support the production and distribution of a professional-quality short educational film on caves and caving (with a strong conservation message for internal and external use.

Yes No

- 5. The NSS Internal Organization Policy requires that all NSS Grotto members he NSS members because, by definition a Grotto is a voluntary association of NSS members that has been chartered as a chapter by the Society. On the other hand, most grottos do ahve members that are not NSS members, e. Special purchases (such as libraries often on the grounds that individuals feel "closer" to their grotto than to their society. The following are a variety of ways to resolve this seeming contradiction. Vote for only one.
 - A. Enforce the present requirement that all Gotto members be NSS members (at least after a one year grace

The state of the s

Congress of Grottos Resolutions (cont.)

period) by first reminding all grottos of the requirement and then revoking the charters of those that do not comply.

- B. Require only that all grottos have the requirement in their bylaws, but do not enforce it.
- C. Permit grottes to have members that are not NSS members, but with restrictions of their privileges, including (if you vote for C, vote for any number of the following:)
 - 1) Only full members may hold office.
 - 2) Only full members may count toward representation at COG
 - 3) Only full members may be delegates to COG
 - 4) Only full members may vote for who holds office in IOs.
 - 5) Only full members may vote on issues to be considered at COG.
 - 6) Only full members may represent
 10 at regional business meetings
 - 7) No restriction to one year allowed in IO without joining NSS
 - 8) Only full members may have access to NSS publications, files, etc.
 - 9) Other

- D. Permit grottos to have members that are not NSS members, without any restrictions or conditions.
- 6. The NSS BOG is hereby requested to establish a cave acquisition fund. Donations to this fund shall be used exclusively for the purpose of purchasing caves and expenses directly associated with such purchase, i.e., legal and title transfer fees.

Yes No

14

7. Whereas: One of the major assets of the NSS is the library housed in the NSS office in Huntsvelle and Whereas this library contains many one-of-a-kind items, manuscripts, and other irreplaceable items, therefore be it Resolved: that the BOG is requested to have a fire protection alarm system and/Or sprinkler system installed in the office.

Yes No

8. The NSS should not set a goal of 10,000 members by January 1981, but rather put the emphasis on an increase in membership with current cavers.

Yes

(continued on inside cover)

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53

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