

# BULLETIN



**Make A  
Safety Drive  
In '85'**

THIS SAFETY BULLETIN CONTAINS SAFETY ARTICLES ON A VARIETY OF SUBJECTS, FATAL ACCIDENT ABSTRACTS, STUDIES, POSTERS AND OTHER SAFETY INFORMATION FOR PRESENTATION TO GROUPS OF MINE AND PLANT WORKERS.

AS GROUP SPOKESPERSON, LEADER OR SUPERVISOR, YOU PLAY AN IMPORTANT ROLE IN THE ACCIDENT PREVENTION PROGRAM FOR YOUR COMPANY. THE WAY YOU TALK, THINK AND ACT ABOUT SAFETY DETERMINES, TO A GREAT EXTENT, THE ATTITUDE YOUR COWORKERS WILL HAVE ABOUT SAFETY.

THIS MATERIAL, FUNDED BY THE MINE SAFETY AND HEALTH ADMINISTRATION, U.S. DEPARTMENT OF LABOR, IS PROVIDED FREE AS A BASIS FOR DISCUSSION AT ON-THE-JOB SAFETY MEETINGS. IT MAY BE USED AS IS OR TAILORED TO FIT LOCAL CONDITIONS IN ANY MANNER THAT IS APPROPRIATE.

PLEASE USE THE ENCLOSED GREEN MEETING REPORT FORM TO RECORD YOUR SAFETY MEETINGS AND RETURN TO THE HOLMES SAFETY ASSOCIATION, POSTAGE-PAID.



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<u>COMPANY</u>	<u>CHAPTER</u>	<u>LOCATION</u>
Massey Sand & Rock	6401	Octillis, CA
White Water Rock & Supply	6402	White Water, CA
S. & V. Stone Quarry	6403	Mode, IL
Tuscaloosa Energy Corp.	6404	Regina, KY
Tuscaloosa Energy Corp.	6405	Regina, KY
Tuscaloosa Energy Corp.	6406	Lick Creek, KY
Bartley & Bartley Coal Co.	6407	Elkhorn City, KY
Mountain Parkway Stone, Inc.	6408	Stanton, KY
Little Rose Coal Co.	6409	Phelps, KY
Tami's Triangle Service	6410	Grethel, KY
Anita Coal Co.	6411	Beaver, KY
Newsome Coals, Inc.	6412	Harold, KY
Jim Dandy Coal Co.	6413	Ransom, KY
K. & H. Coal Co., Inc.	6414	Harman, VA
T. & W. Coal Co.	6415	Wise, VA
A. & D. Coal Co.	6416	Cleveland, VA
Nicholas Plumbing & Elec.	6417	Summersville, WV
R. & N. Mining	6418	Masontown, WV
Bare Coal Co.	6419	Masontown, WV
Feken Trucking	6420	Streator, IL
C. M. Lohr, Inc.	6421	Godfrey, IL
St. Cloud Mining Co.	6422	Winston, NM
West Leatherwood Mining, Inc.	6423	Burgoo, WV
Westridge Coal Co.	6424	Fenwick, WV
Ameron H. C. & D.	6425	Puunene, HI
Amber Coal Co., Inc.	6426	Pikeville, KY
Tackett & Tackett Mining Co.	6427	Weeksbury, KY
Massey Sand & Rock Co.	6428	Eherinberge, AZ
Massey Sand & Rock Co.	6429	Indio, CA
Massey Sand & Rock Co.	6430	Whitewater, CA
Massey Sand & Rock Co.	6431	Garnet, CA
Alexander Brothers, Inc.	6432	Bartley, WV
Raysal Coal Corp.	6433	Raysal, WV
Western Sand & Gravel	6434	Tascosa, TX
Big Walnut Coal Co.	6435	Ransom, KY

# HOLMES SAFETY ASSOCIATION

## SAFETY CONTEST NEWS

There are 17 underground and 16 surface district councils in competition for National Council Safety Awards.

This contest, conducted by the National Council Holmes Safety Association, is held on an annual basis with quarterly reports required from the district councils. The contest started in 1984.

Awards issued to 1985 winning councils will be presented at the annual meeting of the Holmes Safety Association National Council in May 1986.

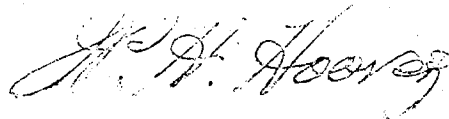
The objective of the contest is to stimulate additional interest in safety among the member safety chapters under the banner of the district councils. This contest is designed and intended for councils and its chapters who have taken the basic steps in a safety program. This demonstrates management interest, sincerity and responsibility towards its employees and greatly helps to obtain active participation of supervisors and workers in the contest.

Competition, when properly organized, can do much to develop teamwork. Some workers who may give little thought to their own safety, can be influenced to cooperate with their coworkers if they know that an injury will bring discredit upon their company, chapter and council.

This contest is open to all Holmes Safety Association chapter council members engaged in coal and metal/nonmetal mining operations. If your district council is not enrolled in the 1985 contest; the 1986 contest is just around the corner. For further information send your request to U.S. Department of Labor, MSHA, Educational Policy and Development, Holmes Safety Association, 4800 Forbes Avenue, Room A268, Pittsburgh, Pennsylvania 15213.

Copies of the rules and criteria of the safety competition are available upon request.

William H. Hoover, Secretary



# HOLMES SAFETY ASSOCIATION

## HOW TO SURVIVE THE HOLIDAYS

### THE HOLIDAY SEASON

It is time for once-a-year activities. For instance, there's picking out a tree, decorating anything from the tree to putting up an elaborate outdoor lighting system - hectic shopping for gifts you hope won't be taken back and exchanged, taking the little ones to see Santa Claus.

Because you get involved only once a year, you may tend to forget the safe ways of doing these things and the healthy approach to handling the stresses and anxieties of the season.

Here's a rundown on some holiday things-to-do and how to do them so you can survive the holidays in a safe and healthy style.

### THE TREE

Select a fresh tree. Here are some basic characteristics of a fresh tree: It's deep green in color and has a strong scent of pine.

It has needles that can be bent without breaking and are firmly attached to the twigs. If any quantity of needles fall from the tree when it's shaken or bumped lightly on the ground, it's an indication that the tree may be too dry.

It has a waxy, natural green appearance if it hasn't been sprayed with a needle colorant. The trunk butt of the tree should be sticky with sap.

Keep the tree fresh. Cut about two inches off the trunk. Mount the tree in a sturdy, water-holding stand. Keep it supplied with water.

Which needles last longest? The balsam fir retains its needles extremely well. The spruce tree is first to drop its needles even when it is watered regularly. The Scotch pine - the most common tree seen on the Christmas tree lots - retains its needles much longer than the spruce and almost as long as the balsam fir.

Pick a safe place for the tree. Select a location that's away from heat and drying sources such as registers, radiators and fireplaces. Don't place the tree so that it blocks a doorway or is in a path of exit.

Artificial trees. Plastic and metalized-plastic trees may be combustible. Select one that is labeled as being fire resistant. Artificial trees with built-in electrical systems should carry the UL marker.

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## DECORATIONS

### Some dos and don'ts

Use only lights and electric cords that bear the UL marker.

Inspect the light strings and cords for fraying, bare wire, loose connections and broken sockets. Light sockets and strings are hard to repair. It's better to replace those that aren't in safe condition.

Use only fireproof or fire-resistant decorations. Use only indirect lighting on metal trees. If lighting cords are placed directly on a metal tree, it may become "charged" and dangerous. Don't decorate with small ornaments that look like they might be candy or food. Small children might try to eat them.

### Avoid pet hazards

Veternarians say that some decorations pose a danger to pets. Cats are attracted to tinsel because it's shiny and stringy and sometimes will eat it. This can result in a serious blockage of the intestinal tract. Puppies sometimes go for the fragile, glass-ball tree ornaments. They look like other balls that the puppies play with, but when they try to hold them in their mouths, the ornaments often break, resulting in glass in the puppy's mouth or throat.

### Know your toxic plants

Mistletoe...Its berries, which often fall off a twig hung over a doorway, can easily be picked up by children or pets. These berries can cause stomach and intestinal inflammation, vomiting, nausea and breathing difficulties.

Holly...Can cause vomiting, diarrhea and stupor. In children, the deadly dose is probably about 20 or 30 berries.

Poinsettias bad-rapped...For years poinsettias have been regarded by many as deadly dangerous. The fact is, they are no more dangerous (and often considerably less dangerous) than any number of common house plants. Poinsettia plants can cause mild stomach irritation, if ingested, but there is no proof that they are toxic.

When it's all over. The sooner you get rid of your Christmas tree the better. The longer it stays up the more of a fire hazard it becomes.

\*Courtesy of the National Safety Council

# ABSTRACT FROM FATAL ACCIDENT

\*This fatality should be discussed at your regular on-the-job safety meeting.



## FATAL MACHINERY ACCIDENT

GENERAL INFORMATION: The mine and mill, a surface crushed limestone operation, was mined by multiple benches. The mill consisted of crushers, screens and hoppers connected by belt conveyors. A standard jaw crusher was used to crush the broken material.

DESCRIPTION OF ACCIDENT: A safety belt and line was provided at the crusher control building. The victim's duties were to start the jaw crusher vibrating screens and belt conveyors. After the plant was in operation, he fed the crusher. Work progressed until a haulage truck driver noticed the victim barring the crusher. When he reached the dumping point at the crusher feeder hopper, the victim was not in sight.

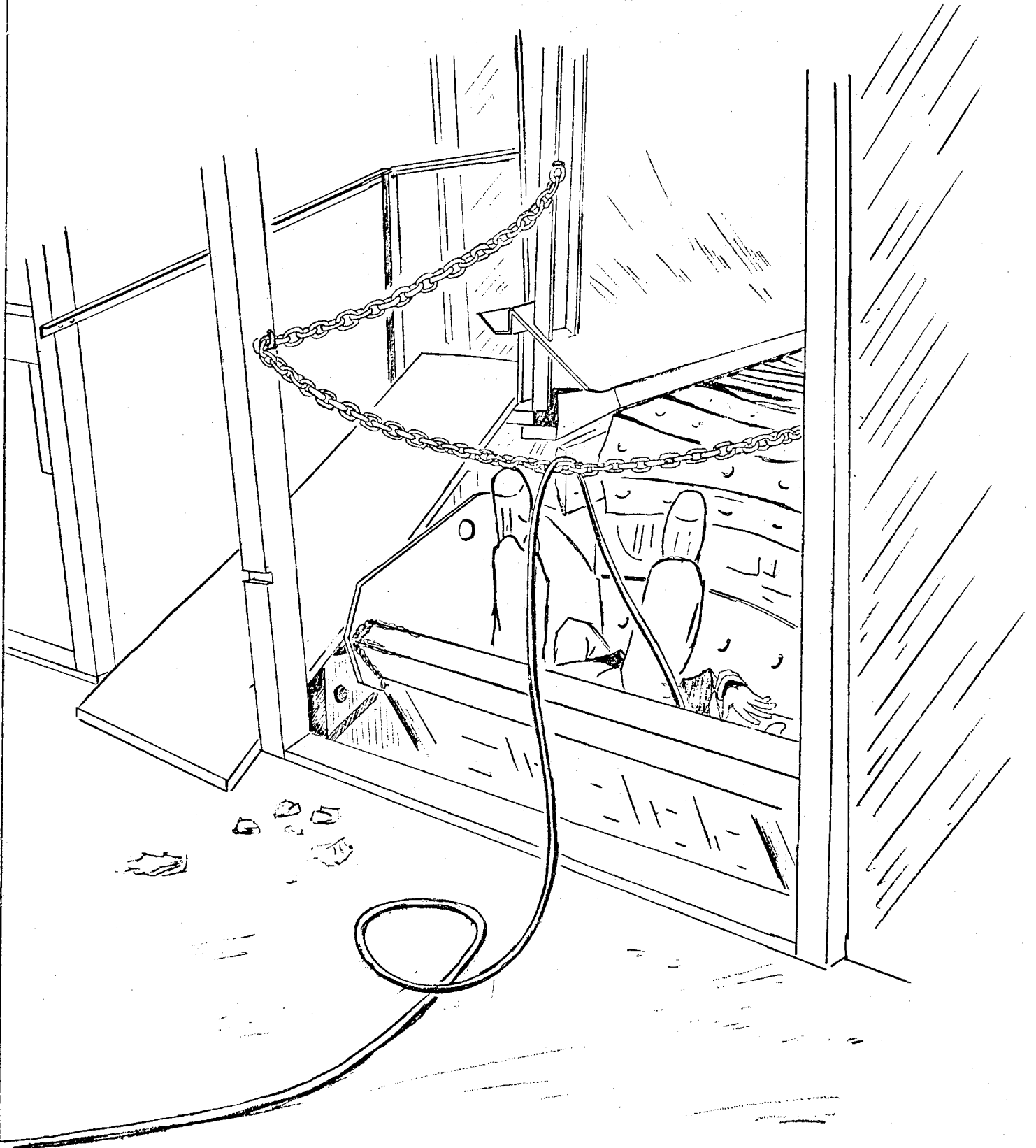
The truck driver stated that the chain guards were in place and that the feeder control cable passed over the chain guard, indicating that the victim fell over the chain guard into the crusher head first.

CAUSE OF ACCIDENT: Since there were no witnesses to the accident, the reason for the victim to be near or over the crusher cannot be determined. One or more of the following conditions contributed to the accident.

1. One of the chains that guard the opening around the top of the crusher may not have been kept secured.
2. Failure of the victim to wear a safety belt and line.
3. The victim placed himself in an unsafe position too near the opening of the crusher.

# WEAR A SAFETY BELT





# HOLMES SAFETY ASSOCIATION

## A CLOSER LOOK AT LOW BACK PAIN

Low back distress has gained more and more attention because of its economic impact on industry. As a long-time nemesis to the medical profession, it has recently been brought into better focus through objective studies. Evidence is mounting which suggests that "normal" degenerative processes of the intervertebral discs exists, thereby exonerating many of the erroneously assigned "industrial injuries."

Low back disability represents one of the most salient health concerns of industrial medical services today. Increasing numbers of such cases have not only caused an economic impact upon industry from the compensation and lost time aspects, but have also stimulated concentrated thought about the causative factors involved.

It is not uncommon to find an employee pointing an accusing finger at his or her job, if the low back pain was experienced while performing work. Understandably, the employee arrives at this conclusion because it is a tendency of people to develop mental connections between two events, when the two are closely linked by short time intervals.

In one study of industrial low back disabilities all low back disabilities were divided into two main groups: those which could be diagnosed immediately (definable trauma, inflammatory processes, etc.) and those cases of a "non-specific" nature. The first category comprised 30 percent of all cases, while the "non-specific" category comprised 70 percent. It is particularly interesting to note that disability due to definite injury ran only 4 percent of the entire study group.

Investigating the "non-specific" cases, the researchers noticed that back distress was occurring as frequently from white collar as from blue collar jobs. In all cases there would be episodic bouts of back pain, followed by periods in which there was no pain at all. The symptoms appeared in a progressive pattern and led to a firm diagnosis of disturbance of the intervertebral disc. The attacks of pain characteristically began in the late twenties or early thirties, reached a maximum intensity in the late thirties and forties and then faded off in the fifties and became infrequent in the sixties.

The researcher drew an analogy between the disc and the casing of an automobile tire. In painting this mental picture for us, he helps us understand what he means by the degenerative process of the disc. He describes the disc as follows: "Composed of a circular casing of dense fibrous tissue, enclosing an inner

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compartment filled with a high fluid content gel under positive pressure; the normal disc acts something like a coiled spring placed between adjoining vertebrae, and keeping them pried apart to the maximum distance allowed by the check-rein effect of the ligaments, and firmly anchored disc casing."

It is when the disc begins "slipping" around, that the familiar "pinched nerve" pain is experienced. Because the casing of the disc is essentially without a blood supply, it cannot readily repair or heal itself should damage occur to its fibers. This is where he draws the analogy to an automobile tire casing. He further explains that, because of the postural characteristics of the vertical human spine, wear and tear occurs in the lowermost section of the spine. The wear and tear which is incidental to the ordinary demands of everyday life can cause micro-damage to the disc, thus resulting in a sort of "slow leak" of pressure from the casing. With this loss of pressure comes instability of disc alignment. Then, at some given time - say when a person is bending forward at an angle but maintaining this position against gravity - the back muscles contract in a way to control the forward motion and minor movement or "slips" of the vertebrae over one another, and may push against the nerve root. Pain is evident to the person, and, of course, whatever they happen to be doing at the time is associated with the pain and is then mentally categorized as the causative factor. It could happen while bending over a sink bowl at home, or while raising the garage door, or at work.

The best defense against lower back pain seems to be to always follow proper lifting techniques while at work and at home. If a load is heavy - get help. Chronic lower back pain causes are difficult to diagnose so it is best to practice preventative measures.

**THROUGHOUT LIFE MOST PEOPLE HAVE ABUSED THEIR BACKS--NOW  
THEY HAVE TO BACK UP AND LEARN THE HARD WAY!**

# HOLMES SAFETY ASSOCIATION

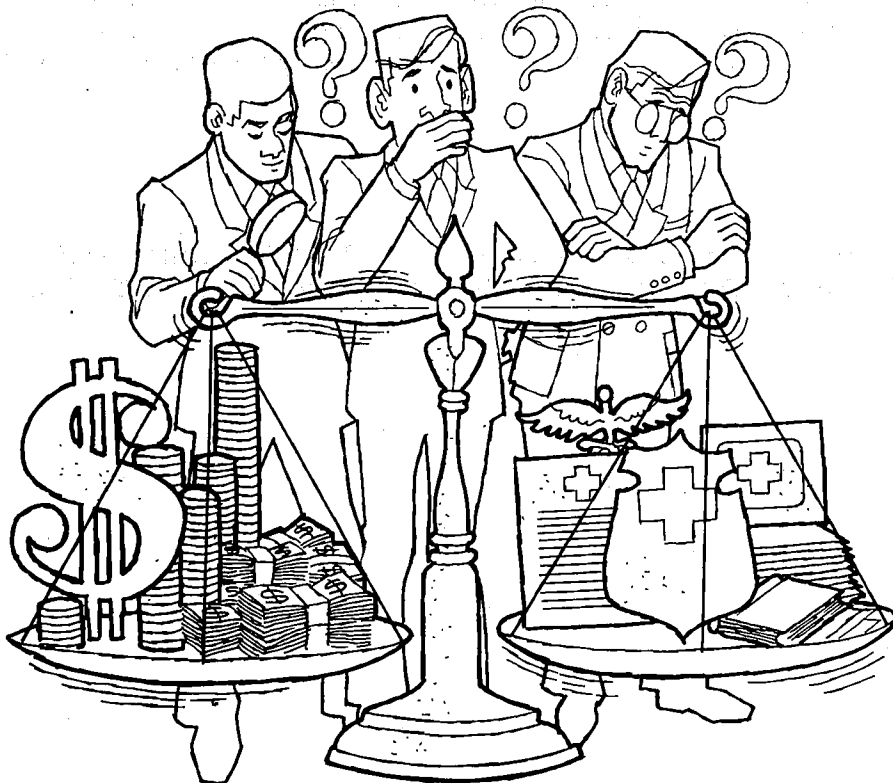
## The Successful Supervisor

A supervisor worthy of the name strives to maintain a high standard of production by keeping costs within a fixed estimate. Since accidents reduce production and increase costs, it is obvious that they must be prevented to achieve efficient production.

In every department the supervisor is the key. In the eyes of the workers, the supervisor represents the company. Plans and policies formulated by management are ineffectual unless carried out wholeheartedly by each supervisor.

The supervisor's attitude toward safety influences to a great extent the attitude of the worker. An indifferent supervisor breeds an indifferent worker. Discipline has a place in safety, but in the long run a supervisor must lead, not drive, the worker into safety. If by example, a safety consciousness is exhibited the worker will do the same.

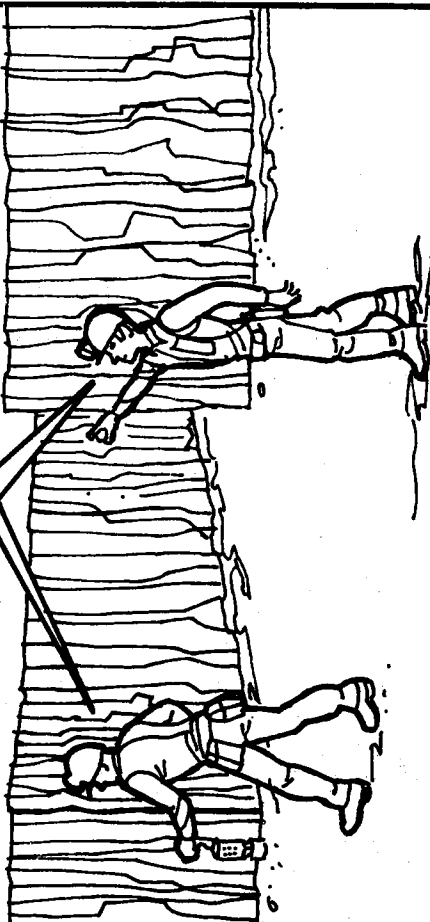
To get workers intelligently interested in safety, the supervisor should keep close to them, watch their habits, study their jobs, understand their problems. There must be careful and constant instruction in accident prevention, especially the newly hired. This is not simply telling them to be careful, but warning them tactfully in regard to the particular hazards of their jobs, and give them specific directions as to safe methods of work.



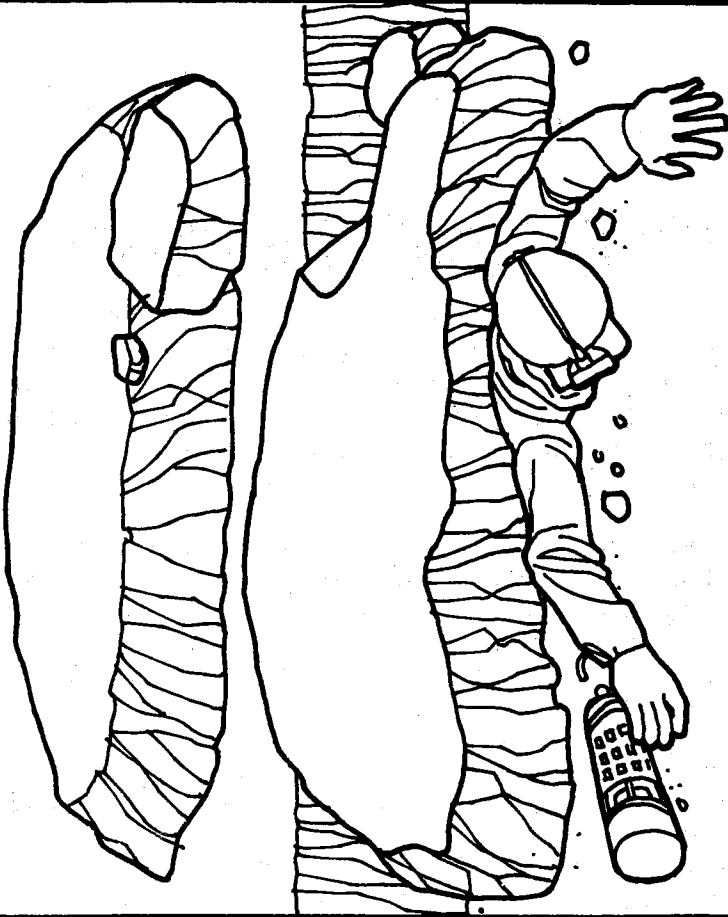
# REAP

HEY BOSS, BETTER NOT GO THRU THAT CROSSCUT, IT'S NOT BOLTED!

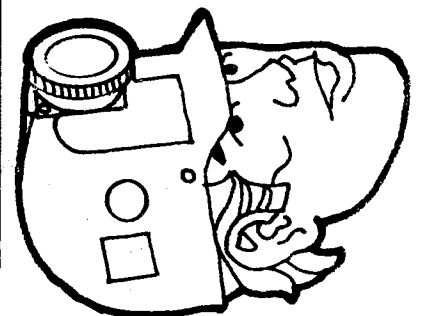
THIS IS GOOD TOP. IT'S NOT GOING TO FALL.



10 SECONDS LATER...



**Supervisors must take the lead in mine safety and not travel or permit others to travel under unsupported roof!**





## H.S.A. SAFETY TOPIC



### MSHA WILL ASSIST COMMUNITIES WITH FUNDING TO MEET MINE OPERATORS SAFETY NEEDS

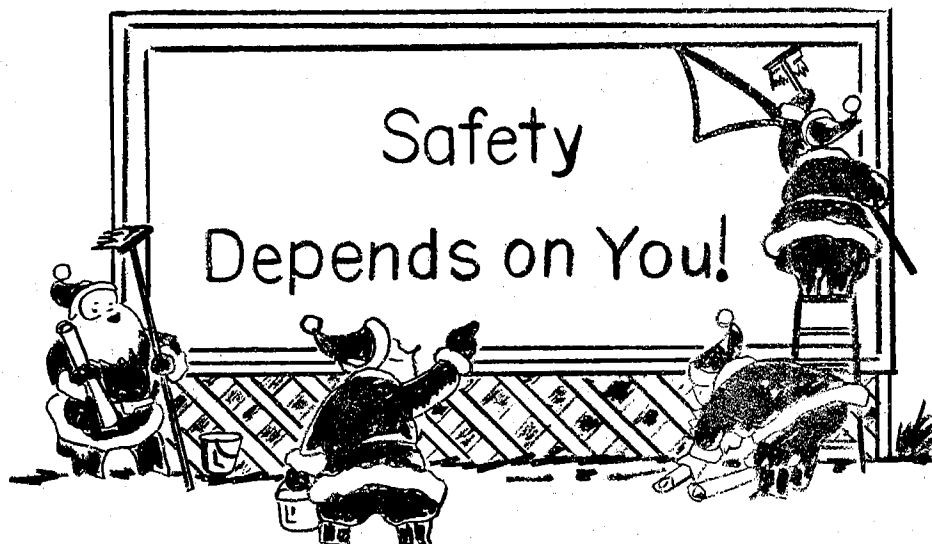
To help mining companies, primarily small mine operators, identify and correct safety problems, the Mine Safety and Health Administration (MSHA) will provide funds through state mining agencies to training schools willing to offer safety awareness training to miners in their areas.

"The main thrust of the program is to address local safety problems by asking local officials to help organize seminars and workshops at community colleges and other training schools which will meet the safety needs of companies and miners in their communities," John English, Director of Educational Policy and Development at MSHA said.

Participating educational institutions can hold training meetings at various locations during periods when miners are available. Community colleges and vocational institutions located near small mines are encouraged to apply. The training sessions will be funded at \$250,000 using existing monies of MSHA's State Grants Program.

MSHA will provide technical support to participating local institutions through the National Mine Health and Safety Academy.

For more information, write Robert Glatter, State Grants Manager, Educational Policy and Development, MSHA, 4015 Wilson Blvd., Arlington, Va., 22203; or phone: (703) 235-8264.



# HOLMES SAFETY ASSOCIATION

## Don't Waste Your Time!!!!

"How will we find time to improve our accident-prevention results?"

The question is usually asked either just before or just after, "what will it cost?"

Both these questions are important and deserve a direct answer--and a specific one.

"How will we find the time?" You'll find it by involving as many people as possible in your prevention effort. It's simple logic that having 3 minds spend 9 hours is difficult to take, but if 300 people spend 2 minutes each, you actually have 10 hours of effort. If you have only 100 people, your effort is roughly 5 to 6 minutes each.

The pertinent point is that you waste more than 10 hours every single day.

"What will it cost?" Nothing, absolutely nothing, because you received the time for free, there was no expense involved. It's just as simple as two and two equal four.

If you want to solve your problem, don't start by worrying about time and money. Think more of attitude and effort by everyone. I mean all, from the president down to the lowest rate on the payroll.

The roof leaks, you fear damage. A bearing burns out, production loss. A frantic crisis develops; you get it straightened out because you might lose money.

Yet, one single serious injury can make the roof leak and the bearing burnout seem very ordinary compared to the cost of the injury.

You can find the time if you really want to prevent injury, but you must want to do it.

### WINTER ALERT

- No Rock Dust
- + Dry Coal Dust
- + Ignition Source

= **DISASTER**

# HOLMES SAFETY ASSOCIATION

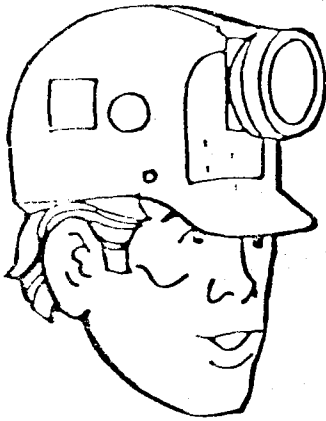
## THE BEST SAFETY DEVICE

It's a big job on this old earth  
to get on your own and prove your worth,  
but it's tougher still to have a mishap  
and face the world with a handicap.  
No matter how smart you think you are,  
you cannot depend on your lucky star  
to keep your limbs and eyes intact,  
or to keep your skull from being cracked,  
it takes constant care and a mind that's alert  
to stay on the job and avoid being hurt.  
Beautiful epitaphs can't be read  
by the people they are written for, after they're dead.  
The age old plea, "I wish that I had..."  
is no relief when you're hurt and sad,  
and you dream of an eye that used to be.  
It's worth far more, as the days go by,  
to give safety a break and honestly try  
to avoid the cost of careless ways  
and prove to the world that safety pays.

THE BEST SAFETY DEVICE IS A CAREFUL WORKER







## **INDIVIDUAL MINERS**

**AS PART OF THE REAP PROGRAM, EACH MINER IS REQUESTED TO COMPLY WITH THE FOLLOWING:**

- 1. Know the approved roof control plan and follow it at all times.**
- 2. Do your part to assure that all entrances to unsupported roof are properly marked.**
- 3. Never work or travel inby permanent roof supports except to install roof supports in accordance with the approved roof control plan.**
- 4. Talk roof control safety. Warn fellow miners.**
- 5. Regularly examine the top for cracks and faults.**
- 6. Pay attention at roof control training sessions. You just might learn something that will save your life. The most effective safety tool in any coal mine always has been and always will be the intelligent, trained, safety-minded coal miner.**

**PREVENT DEATHS FROM ROOF FALLS — SUPPORT REAP**



## H.S.A. SAFETY TOPIC



### MAKE A NEW YEAR'S RESOLUTION - SMILE!

It costs nothing, but creates much.

It enriches those who receive without impoverishing those who give.

It happens in a flash, and the memory of it sometimes lasts forever.

None are so rich they can get along without it, and none so poor but are richer for its benefits.

It creates happiness in the home, fosters goodwill in a business, and is the countersign of friends.

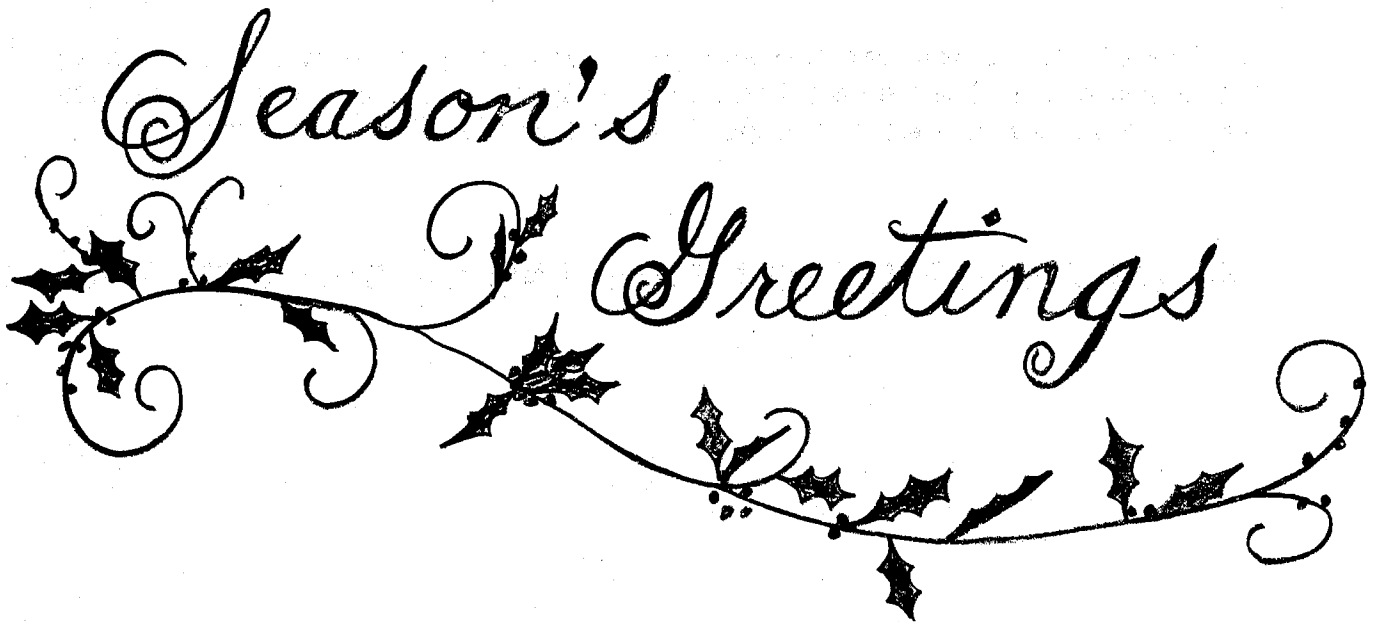
It is rest to the weary, daylight to the discouraged, sunshine to the sad, and nature's best antidote for trouble.

But it cannot be bought, begged, borrowed, or stolen, for it is something that is no earthly good to anyone until it is given away.

And if in the course of the day some of your friends should be too tired to give you a smile, why don't you give them one of yours?

For nobody needs a smile so much as those who have none left to give!

So, go on ..... SMILE!



# HOLMES SAFETY ASSOCIATION

## SAFETY IS YOUR RESPONSIBILITY

Is it true that we are so busy with other things that we cannot spend just a few minutes each day in training our employees in safety procedures for the prevention of accidents and the preservation of health, peace of mind, and life?

Certainly we should feel that our maximum contribution to a general safety program is the minimum of justification. Safe practices and the prevention of accidents should be of mutual interest to supervisory officials and employees alike. None are exempt from the possibility of painful injuries, loss of wages, or even loss of life as long as unsafe practices are tolerated and condoned.

It is now time that we should awaken to the fact of our individual responsibilities concerning the prevention of accidents in our respective places of employment. We have too long excused ourselves for grievous, costly, and painful accidents by saying, "It's just another one of those things." Let's get out of this melancholy mood and get down to earth with the business of safety before another victim is added to the marching army of eternity-bound casualties whose safety we may have neglected.

Not only is it true that those who labor with their hands are found among the suffering thousands of accident victims, but supervisors also suffer from such injuries as broken limbs, fractured skulls, broken backs, and all the other innumerable ill consequences of mine accidents. Let's become the personification of safety and exemplify it in our attitude toward the general safety program.

It is not hard to understand that time spent in placing the responsibility for an accident is not wasted, but it is sometimes hard to understand why more time is not spent in providing preventative and corrective measures to prevent a recurrence of such accidents. Let's get safety-minded. Let's think, talk, act, and live safety.

We accept the supposition that the greater percentage of all mine accidents is the result of human failure. Therefore, we believe that safety education and training are the means by which this robber of human life and happiness can be overcome. To conquer this enemy of our life and health will require the intense concern and interest of every person at the mine, regardless of rank or position. It is a known fact that one unsafe worker in a coal mine can create a condition endangering the lives of everyone else. That is why it is so necessary that we all coordinate our efforts for mutual safety.

# HOLMES SAFETY ASSOCIATION ELECTRIC SHOCK

The nerves in the skin receive the initial shock. The skin offers some resistance to the electrical current. Dry skin offers more resistance than moist, sweaty skin. The point at which current passes into the body is frequently subject to severe burns. Such electrical burns are very slow to heal because they absorb poison in the form of copper oxide.

As the current breaks through the skin, it flows readily through the bloodstream to all parts of the body. It passes through muscles, both voluntary and involuntary, causing them to contract. The walls of blood vessels are relatively brittle, and this sudden contraction can cause the walls to crack, resulting in internal bleeding. The effect on other muscles is as severe, with involuntary muscles simply going "haywire" and control being completely lost over voluntary muscles.

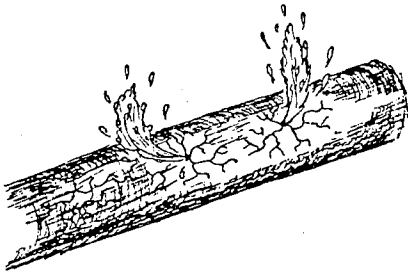


All this and more can result from a relatively low-voltage electric shock. Some people speak casually about low voltage, treating it with a good deal less respect than high voltage. But in view of what it can do, this is a foolhardy attitude.

Moreover, such an attitude can make a person lax when working around all kinds of electricity. It is possible for a person to take short cuts when working with low voltages, but this is not advisable. One might get only an occasional jolt and no lasting adverse effects. And so, habits are formed and carried over to a situation in which medium or high voltages are involved. In this situation, a person's first jolt will usually be the last. In a recent three-year period, there were over 3,300 fatalities in this country due to electrocution.

Consider for a moment what happens when high-voltage electricity passes through the body. If it passes through the heart, the heart is stopped dead in its tracks. Additionally, breathing is usually stopped by the action of the current on the nerve center which controls respiration. In such cases, even if the current has not passed through the heart, the heart may well continue to pump blood through the arteries, but so long as the lungs do not operate, oxygen will not be getting to the body, and the victim will suffocate in five minutes or less. And, of course, even if neither the heart nor the lungs are seriously affected, the shock would cause violent muscular spasms resulting in any and all sorts of serious injury.

The spinal cord has been mentioned as a significant part of the body in cases of electrical shock. It is a very good conductor of electricity. Because it comes fairly close to the surface of the body at the base of the skull, any shock around the head or the back of the neck can prove very serious. The seriousness stems from the fact that any damage to the spinal cord often causes



paralysis throughout various parts of the muscular system. Fortunately, hard hats are built to resist electrical flow.

Electrical power has been used in coal mining since about 1877. It has proved to be the source of power most adaptable to the needs of underground mining. But while electricity is one of our greatest servants, it is also a source of considerable danger.

It is true that many of those injured or killed in electrical accidents are not directly employed in the installation or repair of electrical equipment. This could lead one to believe that such accidents happen only to those who do not have enough knowledge about electricity and unknowingly take dangerous chances. However, this is simply not so. It is just as likely to be the experienced and knowledgeable person who, either unknowingly or knowingly, makes a fatal mistake. We must realize that everyone who goes underground is exposed to electrical dangers, and therefore, everyone must be trained to have sufficient practical knowledge about electricity to properly appreciate the seriousness of electrical dangers.

The following are all too common unsafe acts which create electrical hazards:

1. Hanging clothes near power conductors (especially in generator rooms, pump stations, etc.)

...IF YOU'RE NOT TRAINED TO KNOW ABOUT ELECTRICAL APPARATUS...LEAVE ANYTHING ELECTRICAL ALONE!!!



2. Hanging lunches and safety lamps on trolley wires.
3. Touching fallen wires.
4. Placing too much dependence on insulation of conductors (especially around wet surfaces and water-soaked materials).
5. Running over trailing cables.
6. Jumpering out electrical safety device (such as by-passing fuses).
7. Failure to report electrical hazards.

The following electrical hazards are too often ignored by workers:

1. Improper grounding of conductor.
2. Improper fuses and fusing.
3. Unusual sparking or arcing of equipment.
4. Lack of insulating platform.

The severity of an electrical shock depends upon:

1. The amount of voltage.
2. The wetness of the skin.
3. Whether or not the point of contact is calloused.
4. The pressure at the point of contact.
5. The amount of body area in contact.
6. The location on the body of the point of contact (whether above or below the heart and lungs).

#### **By Way of Review**

Electric current follows the path of least resistance. In the human body this is the blood stream which travels through all parts of the body including, of course, the most vital spot of all, the heart.

Both the heart and lungs operate by means of involuntary muscular action. Low voltage electric current disturbs involuntary muscular movement, and thus causes these organs to function improperly. Medium or high voltages can cause complete cessation of the heart and/or lungs.

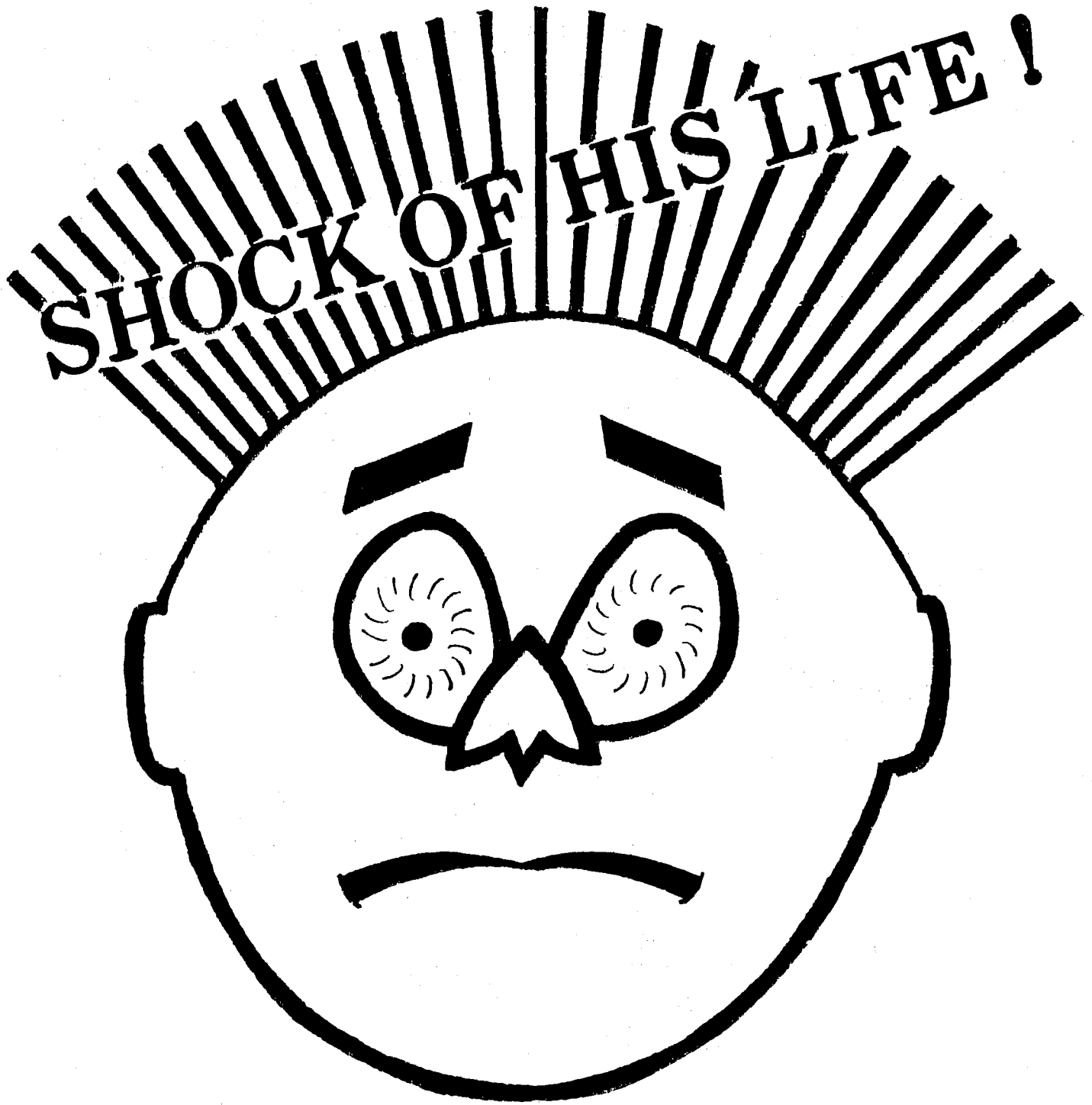
The spinal cord, a bundle of nerves passing through the backbone, is a good conductor of electricity. For this reason, any shock above the shoulders can be extremely serious, often resulting in paralysis.

Electric current can cause severe burns to the skin. These burns heal very slowly.

Internal bleeding may be caused by electric current due to the sudden contraction of blood vessels.

**REMOVE POWER FROM TRAILING CABLES WHEN MAKING SPLICES OR REPAIRS TO ELECTRICAL EQUIPMENT.**





**REPORT DEFECTIVE  
ELECTRICAL EQUIPMENT**



# HOLMES SAFETY ASSOCIATION SLOGANS

It is a well-accepted fact that slogans and catch phrases make strong impressions on people and increase retention periods of the ideas presented.

Here are a few good ones for your safety program.

1. Control power to enjoy its benefits.
2. Check equipment -- check accidents.
3. Inspection plus correction equals protection.
4. It's not what you lift but how you lift it that counts.
5. Your work injury can hurt your entire family!
6. You're not on-the-job, unless you work safely.

\* \* \* \* \*

## TIME FOR A CHANGE

Most of us are quick enough to realize when we attempt to do something two or three times and it doesn't work that we need to change our methods.

Why are we not as quick to realize the same thing about accidents? We may charge the one accident to chance. But what about the second or the third? If there is repeated involvement in accidents a change in attitude is in order...or else!

# THE LAST WORD

Life's an everlasting struggle to keep money coming in and teeth and hair from coming out.

Remember when "withholding" -- only meant Pop was opening his pay envelope before he got home?

What some people don't know about driving fills the hospitals.

Be dissatisfied enough to improve, but satisfied enough to be happy.

One thing worse than being on the wrong side of an argument is to be in the middle of it.

Somebody has figured out that we have about 35 million laws trying to enforce the Ten Commandments.

Helpful hint: When everything else fails, read the instructions.

Those who criticize the younger generation seem to forget who raised it.

There's a significant difference between stupidity and genius. That is, genius has its limits.

Times haven't changed much. It took Noah 40 days to find a parking place.

Smith: Maybe the other planets are not able to support life.  
Jones: Well, it's not such an easy trick on this old planet either.

Every time you turn green with envy, you are ripe for trouble.

He who knows and knows that he knows is a master.

He who knows and does not know that he knows, needs a teacher.

He who does not know and knows that he does not know, needs love.

He who does not know and does not know that he does not know, is lost.

---Ancient Proverb

\* \* \* \* \*

There are two ways of spreading light--to be the candle, or to be the mirror that reflects it.

Ulcers are caused not so much by what you eat as what's eating you.

Sympathy, when expressed by words, soothes the troubled heart; but sympathy, when expressed in action, takes the trouble away from the heart.

The difference between failure and success is doing a thing nearly right and doing it exactly right.

Your town will be a delightful place to live in, if you are a delightful person to live beside.

Many a person considered a fool by financiers has piled up in heaven a fortune they would envy.



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**MSHA, Office of Holmes**  
**Safety Association**  
**Educational Policy & Development**  
4800 Forbes Avenue, Room A268  
Pittsburgh, PA 15213



HOLMES SAFETY ASSOCIATION  
MEETING REPORT FORM

For the month of \_\_\_\_\_

TOTAL meetings held this month \_\_\_\_\_

TOTAL attendance this month \_\_\_\_\_

Chapter Number \_\_\_\_\_ (See address label, if incorrect, please indicate change.)

\_\_\_\_\_  
(Telephone No.)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

FILL OUT - FOLD AND STAPLE - FREE MAIL-IN

NOTE: BE SURE OUR ADDRESS SHOWS

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If you do not care to receive this Bulletin, please check here and return this form.

Please include any change of address below:

The Joseph A. Holmes Safety Association was founded in 1916 by 24 leading National organizations of the mining industries.

The Joseph A. Holmes Safety Association is named to commemorate the first director of the Bureau of Mines for his efforts in reducing accidents and illness throughout the mineral industries.

The following is the different award criteria:

Type "A" Awards - For Acts of Heroism

The awards are medals with Medal of Honor Certificate.

Type "A" - For Acts of Heroic Assistance

The awards are Certificates of Honor.

Type B-1 Awards - For Individual Workers

(40 years continuous work experience without injury that resulted in lost workdays)

The awards are Certificate of Honor, Gold Pins and Gold Decal.

Type B-2 Awards - For Individual Officials

(For record of group working under their supervision)

The awards are Certificate of Honor.

Type C Awards - For Safety Records

(For all segments of the mineral extractive industries, meeting adopted criteria)

The awards are Certificate of Honor.

Other Awards - For Individual Workers

(For 10, 20, or 30 years without injury resulting in lost workdays)

The awards are 30 years-Silver Pin and Decal, 20 years-Bronze Pin and Decal, 10 years-Decal bearing insignia.

Special Awards - For Small Operators

(Mine operators with 25 employees or less with outstanding safety records)

The awards are Certificate of Honor!

Contact: HSA Office

Department of Labor  
MSHA, Holmes Safety Association  
4800 Forbes Avenue, Room A268  
Pittsburgh, PA 15213

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