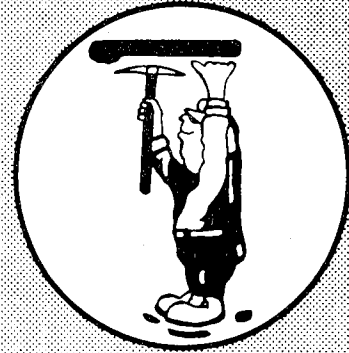


JANUARY/FEBRUARY 1982



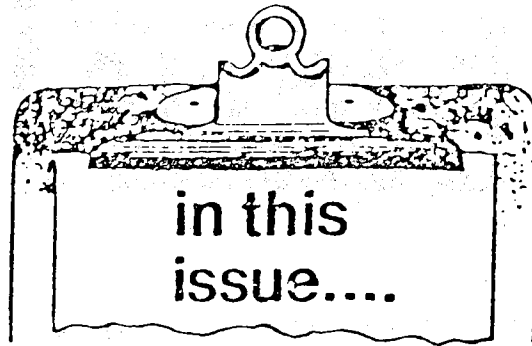
BULLETIN



"SAFETY"
It's Up to You,
In '82



HOLMES SAFETY ASSOCIATION



JANUARY/
FEBRUARY 1982

1. Holmes Safety Address/Telephone Changes
2. Introduction--Welcome to New Chapters
3. International Training Symposium Memorabilia
4. Safety Topic, "Mind Safety"
5. Abstract, "Powered-Haulage Accident/Locomotive"
6. Abstract, "Powered-Haulage Accident/Miner"
7. Safety Topic, "Child's Affidavit"
8. Pre-Shift Inspection Program for Mobile Surface-Mining Equipment
9. Coal Mine Fatalities/January-November 1981
10. Safety Topic, "Fundamentals of Accident Investigation"
11. Safety Topic, "First Aid for Chokers"
12. Safety Topic, "Part 55.11--Travelways"
13. Safety Topic, "Part 77--Subpart Q--Loading and Hauling"
14. Safety Topic, "Lost Tempers Cause Accidents"
15. Safety Topic, "How Many Horses Do You Use"
16. Safety Topic, "He Used to Be"
17. Safety Topic, "Fatalities Related to Safety Belts, Safety Lines, or Lanyards, 1978-1979"
18. Safety Topic, "The Last Word"
19. Poster, "Good Supervision"
20. Meeting Report Form (chapters only)

"CONGRATULATIONS JACK"

The Holmes Safety Association poster, "Mr. Jack Safety" was awarded honorable mention in the international poster competition at the Second International Symposium on Training in the Prevention of Occupational Risks in the Mining Industry held November 9-13, 1981, in Washington, D.C. It was the only United States Poster entry to receive recognition in this competition.



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HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Introduction

Welcome to the 230 new chapter members established in 1981. It is a pleasure having you as a member of the Holmes Safety Association. We hope you have been taking full advantage of the safety topic material your membership provides.

Our compact monthly Bulletin includes numerous safety topic materials for on-the-job safety meetings. The Bulletin has been simplified. Please note the monthly meeting report form, which we ask that you complete, tear out, fold and return, postage-paid.

This is a landmark year--the 60th anniversary of the Holmes Safety Association. From its introduction in 1922, the Association has become a supreme safety organization, assuring to the mining, mineral extractive and allied industries a high level of safety personal services nationwide.

This concept has not changed in six decades. The world has changed; more employees are now traveling further and more often. The pace has quickened with less time for the most important phase of our job--Safety Meetings. As a result, accidents and serious lost-time and disabling injuries continue to climb.

To assist you in these changing times, the benefits of the "Bulletin," as a safety leader, should save you and your employees time and effort and provide educational safety material at most levels of your mining operation.

In 1964, there were about 200 safety chapters, the greatest number in Pennsylvania coal mines. To date, there are 1,727 chapters covering metal, nonmetal and coal mines in 44 states. This is indicative of only one aspect of how the Holmes Safety Association services has increased during the last six decades.

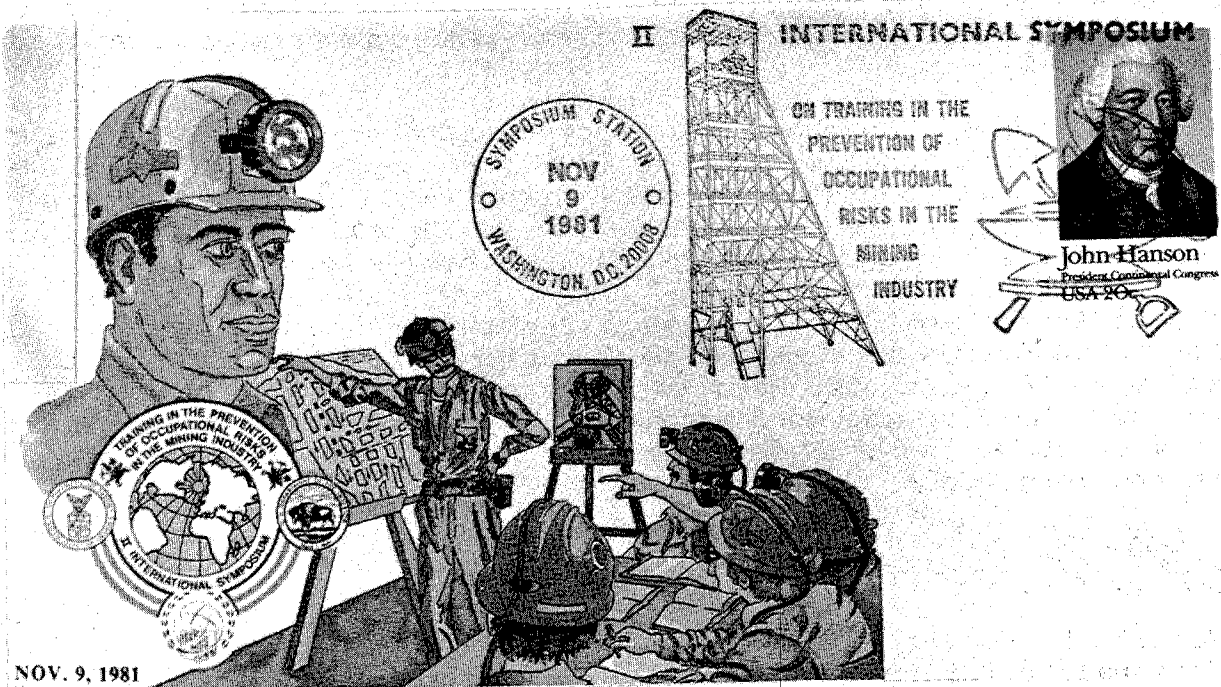
We appreciate your past and continued membership and support. In the months and years to come, we will continue to expand the Association and also to search for ways to increase the value of safety material to you. Keep up the good work. Hold your safety meetings and let us know about them. Safety pays for itself and costs you nothing in the long run.

William H. Hoover
National Secretary
Holmes Safety Association

INTERNATIONAL TRAINING
SYMPOSIUM MEMORABILIA

A special postal commemoration of this Symposium has been developed. It is a cover commemorating the II International Symposium on Training in the Prevention of Occupational Risks in the Mining Industry and contains a special Washington, D.C., cancellation recording for all time an important event for the worldwide mining industry. The artist, Mr. Olin P. Keyes, Jr., has produced an extraordinary four-color cachet which is truly a work of art.

These covers can be purchased by sending a check or money order payable in U.S. funds in the amount of \$1.50 for each or \$3.50 for three to: Mine Safety and Health Administration, 4800 Forbes Avenue, Pittsburgh, Pa. 15213, U.S.A.; Attention: Janet Earhart. Please include a self-addressed stamped envelope (#10).





HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Mind Safety

To alter our caption of "Mine Safety" with one letter change, it is possible to see exactly where the real responsibility for safety lies. It is ours as individuals to live and practice this basic need for self preservation. By doing this daily, we are able to teach others correct methods of performing our job in a safe and efficient manner.

The mind is the governor of our actions, it must always be alert and ready to act when the unexpected arises. The welfare of our families, co-workers and ourselves is at stake. We can wisely ask:

"Do I have the right to gamble the happiness and future of those who depend on me against the small effort required to do the job safely?"

"Six Murderous Beliefs" as stated by Ned H. Dearbon should never be allowed to enter our minds and let alone to dominate our actions. They are:

1. The "Other Fellow" Concept. Assuming that accidents only happen to the other fellow who is not as smart as we are.
2. The "Your Number's Up" Concept. The philosophy that accidents just happen or they don't.
3. The "Law of Averages" Concept. That a certain number of persons are doomed despite reasonable precautions.
4. The "Price of Progress" Concept. Natural price paid for progress, or the Cost of Modern Living.
5. The "Spirit of '76" Concept. That safety precautions are inconsistent with the spirit of our forebearers.
6. The "Act of God" Concept. Accidents are an act of God, inflicting divine punishment on us and our loved ones.

It has been found that accidents assigned to these classifications are also preventable through well-administered safety programs.

ABSTRACT FROM FATAL ACCIDENT

HOLMES SAFETY ASSOCIATION
MONTHLY SAFETY TOPIC
Powered-Haulage Accident



General Information: A fatal powered-haulage accident occurred in a haulage entry resulting in the death of a locomotive operator. The victim had four and one-half months mining experience, the last two of which were as a locomotive-operator trainee.

Description of Accident: The second shift material crew, under the direction of the mine supervisor, began their normal work shift. After loading a 4-car train of material, the motorman pulled the loaded train into the mine with a 15-ton General Electric locomotive. The victim followed the train with an 8-ton G.E. locomotive to switch out the loaded material cars and return empty material cars to the surface, which was a common practice.

The material train and "tag" locomotive stopped at a sanding station located about 1800 feet inby the portal. The motormen were in the process of checking and filling the sanders on their locomotives when the night foreman approached the stopped train and asked the victim if they had trouble. The victim said he was cleaning wet sand out of the sanders. He then proceeded to the lead locomotive and asked the lead motorman if he was ready to go. He replied that they were waiting for clearance as some switching was being done at the first south switch.

When clearance was obtained, the train continued along the first south haulage stopping just inby the 3 west switch. The head motorman instructed the victim to wait there until he cleared the 3 west hill. The train proceeded on. The lead motorman was leaning over the back of the operator's compartment hand sanding the left rail. As he approached the top of the hill he saw a flash coming from the back of the locomotive and the wheels started to spin. He lost control and the train traveled downgrade where it collided with the victim's locomotive at the bottom of the hill. The victim had apparently followed the material trip instead of waiting as instructed. The lead motorman ran to the rear of the wrecked material trip, where he saw the victim pinned between the second car and a transformer located in a crosscut. He then ran to a telephone outby the wreck and summoned help.

Employees were immediately dispatched to the accident scene where one supervisor observed a high-voltage cable pulled down by the wrecked cars and told everyone to stay clear until the cable was deenergized. The victim was examined for vital signs and removed from the wreck.

Cause of Accident: The accident occurred due to the failure of management and employees to adequately maintain locomotive sanding devices and to provide a brake car, trailing locomotive, drag or equivalent devices to stop runaway trips on ascending grades. Contributing was the failure to determine maximum safe load limits.

ABSTRACT FROM FATAL ACCIDENT

HOLMES SAFETY ASSOCIATION

MONTHLY SAFETY TOPIC

Powered-Haulage Accident



General Information: A miner was fatally injured during an attempt to reraill a track-mounted mechanical mucking machine. The victim had been employed at this mine, an underground copper mine, for about two years. He had received miner's training, served in the miner's pool for approximately 6 weeks and had been classified as a drift miner 19 days prior to the accident.

Description of Accident: At the beginning of the shift, the victim and his partner were assigned the job of rerailling a derailed mechanical mucking machine. The men and a development foreman worked throughout the first half of the shift without success, trying several different methods for rerailling the machine. An additional crew of two construction miners were assigned to assist with the operation.

The four miners and supervisor attempted to raise the mucker again by using a 6-foot long 6- by 8-inch timber as a lifting strut between the coupling of a mine flat car and the elevated boom of the flight conveyor. This practice consisted of placing a timber lengthwise at an angle between the car and the machine while advancing the car with two battery-powered locomotives until the machine lifted.

The timber was not long enough to produce sufficient lift to reraill the mucking machine so the motors were reversed to relieve the lifting force. When this was done, the pressure between the battery motor and flat car coupling was also released and the weight of the mucking machine and conveyor on the timber on the opposite end caused the flat car to tip up and out of the motor coupling. As the car uncoupled, the angle of the timber caused it to rotate and pin the victim against the side of the drift.

At the time of the accident, the flat car was carrying a single built-up "pocket-rail" and had two 2-1/2-inch diameter by 29-inch length steel pipe car stakes inserted in side pockets on the bed. One of the stakes pinned the victim and compressed his chest until he was unable to breathe.

Cause of Accident: The direct cause was failure to clear individuals from hazardous locations while attempting to reraill the mucking machine. Contributing causes were the use of the relatively light-weight flat car for reraill of the heavier mucking machine and the victim positioning himself in an unsafe location during the process while failing to heed warnings from more experienced miners.

Recommendations: Alternate means for rapid rerailling of heavy equipment and mine cars should be explored.



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

CHILD'S AFFIDAVIT

I, (SON, DAUGHTER), HEREBY
AUTHORIZE MY (FATHER, MOTHER) TO WORK WITHOUT
WEARING GLOVES, HARD HAT, GOGGLES, SAFETY SHOES
OR ANY OTHER SAFETY EQUIPMENT AND HEREBY PROMISE
THAT I WILL, WITHOUT COMPLAINT, PERFORM THE
FOLLOWING DUTIES IN CASE HE/SHE IS BLINDED OR
CRIPPLED:

1. LEAD MY (FATHER, MOTHER) WHEREVER HE/SHE
WANTS TO GO,
2. HELP MY (FATHER, MOTHER) DRESS AND EAT,
3. DESCRIBE THE SCENERY TO HIM/HER ON OUR
VACATIONS,
4. READ TO MY (MOM, DAD),
5. TRY TO TAKE OVER AS MANY OF MY (FATHER'S,
MOTHER'S) HOUSEHOLD DUTIES AS I CAN
WHILE AT THE SAME TIME DOING CHORES
AROUND THE YARD,
6. HELP MY YOUNGER SISTER AND BROTHER WITH
THEIR HOMEWORK,
7. DESCRIBE OUR CHRISTMAS TREE EVERY YEAR
AS WELL AS MY GRADUATION AND WEDDING
CEREMONIES TO MY (FATHER, MOTHER),

SIGNED

(CHILD'S NAME)

PRE-SHIFT INSPECTION PROGRAM FOR MOBILE SURFACE-MINING EQUIPMENT

Research has shown that many accidents involving mobile surface-mining equipment occurred because machines were often operated without proper maintenance or servicing. In addition, it was discovered that many machine operators did not know how to check for the resulting defects, or know how to correctly use personal protective equipment. Pre-shift safety-inspection training modules were developed to provide ten short training programs for operators of the wide variety of mobile equipment in use.

Each of the ten 25 minute training modules consists of a set of 35mm slides, a synchronized narrative on tape, and handout cards. The generic machines covered by nine of the modules are (regardless of manufacturer): bulldozers, front-end loaders, scrapers, service tractors, diesel-electric haulers, diesel-electric loaders, motor graders, diesel off-highway haulers and highway-rated haulers and service trucks. A tenth program instructs machine operators in the correct use of personal protective equipment.

The original research was done, and the training modules developed and supplied to the Mine Safety and Health Administration by Woodward Associates, as part of a Bureau of Mines contract. The modules were field evaluated and found to be helpful in developing safer work habits. They were highly regarded by operator-trainees and mine training officials. The materials are now being used by mine operators to satisfy miner training requirements.

All audiovisual materials listed herein are offered for sale only, and the prices (determined by contractual reproduction costs) are subject to change without notice. To obtain audiovisual materials, please submit a written request or purchase order to:

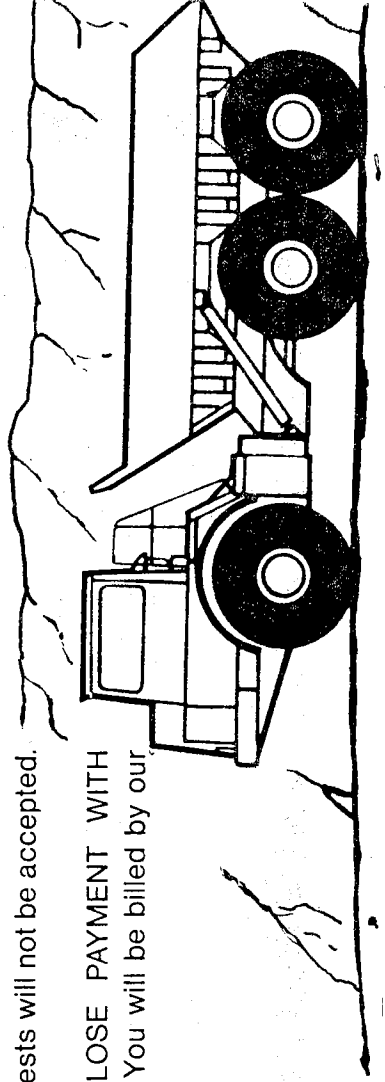
Chief, Division of Audio
Visual Services
Education and Training
Mine Safety and
Health Administration
4800 Forbes Avenue
Pittsburgh, PA 15213

Telephone requests will not be accepted.

DO NOT ENCLOSE PAYMENT WITH
YOUR ORDER. You will be billed by our
finance office.

The following ten modules are available as a set for \$100, or individually for \$10. The price includes: the slides (the number of slides in brackets), a narrated tape cassette with synchronized slide change pulses, and a supply of handout cards.

MODULE	PRICE
PIP 1. Personal Protection (87) ...	\$ 10
PIP 2. Motor Graders (89)	10
PIP 3. Crawler-Type Dozers and Loaders (93)	10
PIP 4. Wheeled Loaders and Dozers (83)	10
PIP 5. Diesel-Electric Wheeled Loaders (83)	10
PIP 6. Diesel-Electric Haulers (93)	10
PIP 7. Diesel Off-Highway Haulers (81)	10
PIP 8. Scrapers and Trailer-Type Bottom Dump Haulers (80)	10
PIP 9. Rubber-Tired Service Tractors (79)	10
PIP 10. On/Off Road Haulers, Service and Utility Trucks (76)	10
PIP 11. Pre-Shift Inspection Program (All Ten Modules)	\$100



Coal Mine Fatalities January-November 1981



U.S. Department of Labor
Mine Safety and Health Administration

Raymond J. Donovan, Secretary

Ford B. Ford
Assistant Secretary
for Mine Safety and Health

**Coal Mine Fatalities in the
first eleven months of 1981:
November Fatalities: 11**

**UNDERGROUND: Roof Fall 3, Haulage 2, Electrical 2,
Machinery 1**

SURFACE: Haulage 2, Machinery 1

(Compared with 1980: 122)

Coal Mine Fatalities for Jan.-Nov. 1981 and Jan.-Nov. 1980 by State:

	1981	1980	1981	1980
Kentucky	28	28	2	0
West Virginia	24	31	2	8
Colorado	20	2	2	3
Pennsylvania (Bit)	14	13	2	4
Virginia	13	14	0	11
Alabama	4	3	0	3
Utah	3	0	0	3
Wyoming	3	1	1	1
Missouri			2	0
Ohio			2	8
Pennsylvania (Anth)			2	3
Tennessee			2	4
Illinois			0	11
Indiana			0	3
New Mexico			0	1

Fatalities for Jan.-Nov. 1981 by Occupation, Location and Cause:

OCCUPATION	1981	Cause	1980
Supervisor	18	Motorman	2
Roof Bolter/Helper	17	Drill Operator	2
Continuous Miner Operator/Helper	14	Jack Setter	2
Truck Driver	7	Timberman	2
Laborer	7	Loading Machine Operator/Helper	1
Mechanic	6	Loading Shovel Operator/Oiler	1
Shuttle Car Operator	5	Supply Man	1
Electrician/Helper	5	Bulldozer Operator	1
Scoop Operator	4	Maintenance Man	1
Belt Man/Conveyor Man	4	Stripping Shovel Operator	1
Miner Helper (Trainee)	3	Rockman	1
Superintendent	2	Pumper	1
Front End Loader Operator	2	Car Dropper	1
Brattice Man	2	Utility Man	1
Welder	2	Unknown	1

LOCATION	1981	Cause	1980
Underground Mine	81	Roof and Rib Fall	36
Strip and Auger Mine	25	Haulage	28
Surface Area of UG Mine	7	Electrical	11
Preparation Plant	4	Machinery	10
		Other	32



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Fundamentals of Accident Investigation

The ESSENTIALS of a successful safety program include elimination of physical hazards, elimination of unsafe work practices, training to minimize the human factors that cause accidents, and thorough accident investigation.

Accident investigation should include inquiry into not only injury accidents, but noninjury accidents such as a broken crane hook or tank explosion that have high potential for causing serious injury. Any epidemic of minor injuries should also receive attention to determine the underlying causes.

Accident investigation is important. It is the basis for a large portion of accident prevention work, and it can mean the success or failure of a safety program.

The primary purpose of accident investigation is to pinpoint causes so that similar occurrences can be prevented, usually through one or more of the following measures:

- 1) mechanical improvements
- 2) improvement of supervision and
- 3) employee training.

Other purposes for investigating accidents are to: create a record for future reference; provide information for dissemination to other units; direct attention to safety in general; stimulate submission of suggestions for improvements; satisfy local, state, and federal agencies and spot areas where preventive maintenance might be needed.

There are two cardinal principles of accident investigation which anyone engaged in this work must keep in mind.

The first is that 95 per cent of accidents involve both unsafe acts and unsafe conditions. The investigator must look for all causes, both hazardous conditions and human failures, but in every case conditions should be investigated first. This holds true even for situations which it is fairly obvious that an unsafe act caused the accident.

The second is that the investigator must believe, and must convince the workers, that the purpose of accident investigation is fact-finding, not fault-finding. This is the accident investigator's most difficult and most crucial job. If workers feel that the investigator is trying to fix blame, they might withhold information to protect themselves or co-workers and thereby thwart the investigation.

Accident investigators must deal with many types of personalities under strained conditions. The occasion of an accident is a trying time for all concerned and workers react to the pressure of the situation in various ways. Some become shy, nervous, apprehensive, and hesitate to talk for fear of self-incrimination. Others become hostile and resentful of what they feel is snooping. Still others, no matter how apparent their negligence, will insist that someone else or the equipment was to blame.

On the whole workers are cooperative and understanding when they are convinced that they may be helpful in preventing someone else from experiencing a similar mishap.

A good general pattern for the accident investigator to follow is:

1. Investigate all injury-producing accidents as soon after their occurrence as circumstances permit. Many companies require investigation within 24 hours.
2. Delay an interview with the injured person until initial medical treatment, no matter how minor the injury. The investigator should always be more concerned with the employee's welfare than with fact-finding.

Even if the employee is willing to talk, insist upon medical attention first. If after treatment the employee is in pain or upset, postpone questioning. The injured worker is usually the main source of information about the accident, and the accuracy and completeness of the information obtained depends to a great extent upon how the interview is conducted.

3. Never use sarcasm, appear aggressive, or blame anyone. This only makes the worker withdraw or become belligerent. Some workers immediately sense and admit responsibility and become self-condemnatory. They know they are wrong and don't want or need to be reminded of it. Nothing can be gained with criticism or ridicule.

If the injured person cannot be interviewed, the investigator should talk with witnesses. At all cost, avoid making them feel that they are informers. Re-emphasize to them the purpose of the investigation --to gather the facts to prevent recurrence of the accident.

Avoid asking witness leading questions, such as, "Why was there horseplay?"--even if it's a certainty that there was. Never attempt to put words in a witness's mouth.

Re-enactment may be called for when: 1) the investigator doesn't understand, 2) the investigator isn't sure how to prevent recurrence, 3) others may benefit from it.

However, many accidents happen during re-enactment itself. Never ask someone to re-enact an obviously dangerous procedure or one that

is already understood.

Re-enactment and the interviews with the injured person and witnesses are for the purpose of gathering information. Have a definite plan or outline of what information is to be obtained.

Obvious facts to gather are the injured persons name, occupation, and the date, day and hour of the accident. Not only the department but the exact scene of the accident must be known.

The same occupation may involve several different activities. Find out what particular job the employee was doing at the time of the accident.

The best guide available to follow in recording key facts about any given accident is the American National Standard Z16.2 and Method of Recording Basic Facts Relating to the Nature and Occurrence of Work Injuries. Use of this method will enable the investigator to identify key facts and record them in a form that lends itself to summarization and analysis.

Some companies leave all primary accident investigation up to the supervisor. In these companies accident investigation is considered a routine part of job responsibility, and safety personnel function as staff.

In the more serious cases, a safety engineer could verify the findings of the supervisor and investigate every important accident. In most cases, the safety-man will make a report.

Fatalities involve the highest level of investigation, frequently a plant committee and a corporate group. Insurance carriers and governmental bodies may also conduct accident investigations.

In summary, the main points to remember when investigating accidents are:

- Get to the scene promptly.
- Be sure the injured are treated first.
- Apply empathy in interviews with witnesses and the injured.
- Encourage suggestions.
- Be objective--seek the facts.
- Publicize the facts so all may benefit.
- Follow up.



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

First Aid For Chokers

This emergency may arise in a restaurant or at home while dining. The victim having a piece of food lodged in his windpipe suddenly cannot talk, breath, and may lose consciousness!

The Heimlich Maneuver has been developed to dislodge the blockage.

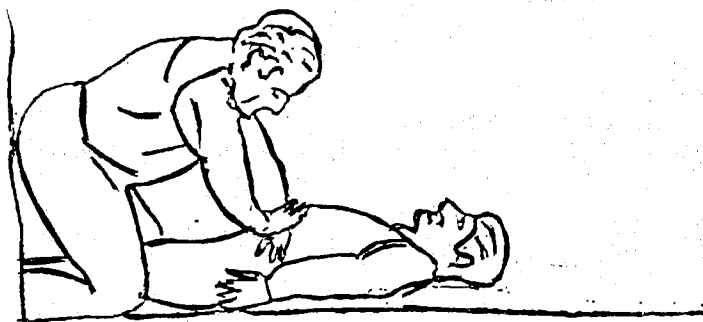
This is how the maneuver is done:

Standing Position



1. Stand behind the victim and wrap your arms around the waist.
2. Allow the victim's head, arms and upper torso to hang forward.
3. Make a fist with one hand and grab it with the other. Place the fist against the victim's abdomen, slightly above the navel and below the rib cage.
4. Press your fist into the victim's abdomen with a forceful upward thrust. Repeat if necessary.

Prone Position



1. Place the victim on his back.
2. Kneel astride the victims hips with one hand on top of the other.
3. Place the heel of the bottom hand on the abdomen, slightly above the navel and below the rib cage.
4. Press into the victim's abdomen with a forceful upward thrust. Repeat if necessary.

REMEMBER TO GET BELOW THE RIB CAGE
AND MAKE THE MANEUVER QUICK AND
FORCEFUL!



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Code of Federal Regulations
Subchapter N--Metal and Nonmetallic
Open-Pit Mines
Part 55.11--Travelways

We shall be discussing the Federal Standards governing travelways in open pit metal and non-metal mines which are subject to the Metal and Nonmetallic Mining Act. Each standard is mandatory, and therefore requires, that the mine operator meets the requirements of each; failure to comply will result in a citation for each non-compliance, as required by section 8 of the Act. It should also be noted that the purpose of these standards is for health and safety, and the prevention of accidents in each mine.

55.11-1 Safe means of access shall be provided and maintained to all working places.

55.11-2 Crossovers, elevated walkways, elevated ramps, and stairways shall be of substantial construction, provided with handrails, and maintained in good condition.

55.11-3 Ladders shall be of substantial construction and maintained in good condition.

55.11-4 Portable rigid ladders shall be provided with suitable bases and placed securely when used.

55.11-5 Fixed ladders shall be anchored securely and installed to provide at least 3 inches of toe clearance.

55.11-6 Fixed ladders shall project at least 3 feet above landings, or substantial handholds shall be provided above the landings.

55.11-7 Wooden components of ladders shall not be painted except with a transparent finish.

55.11-8 (RESERVED)

55.11-9 Walkways with outboard railings shall be provided wherever persons are required to walk alongside elevated conveyor belts. Inclined railed walkways shall be nonskid or provided with cleats.

55.11-10 Vertical clearance above stair steps shall be minimum of seven (7) feet, or suitable warning signs or similar devices shall be provided to indicate an impaired clearance.

55.11-11 Persons using ladders shall face the ladders and have both hands free for climbing and descending.

55.11-12 Openings above, below, or near travelways through which persons or materials may fall shall be protected by railings, barriers, or covers. Where it is impractical to install such protective devices, adequate warning signals shall be installed.

55.11-13 Crossovers shall be provided where it is necessary to cross conveyors.

55.11-14 Moving conveyors shall be crossed only at designated crossover points.

55.11-15 (RESERVED)

55.11-16 Regularly used walkways and travelways shall be sanded, salted, or cleared of snow and ice as soon as practicable.

55.11-17 Fixed ladders shall not incline backwards.

55.11-18 through 55.11-24 (RESERVED)

55.11-25 Fixed ladders, except on mobile equipment, shall be offset and have substantial railed landings at least every 30 feet unless backguards or equivalent protection, such as safety belts and safety lines, are provided.

55.11-26 Fixed ladders 70 degrees to 90 degrees from the horizontal and 30 feet or more in length shall have backguards, cages or equivalent protection, starting at a point not more than seven (7) feet from the bottom of the ladders.

55.11-27 Scaffolds and working platforms shall be of substantial construction and provided with handrails and maintained in good condition. Floor boards shall be laid properly and the scaffolds and working platforms shall not be overloaded. Working platforms shall be provided with toeboards when necessary.



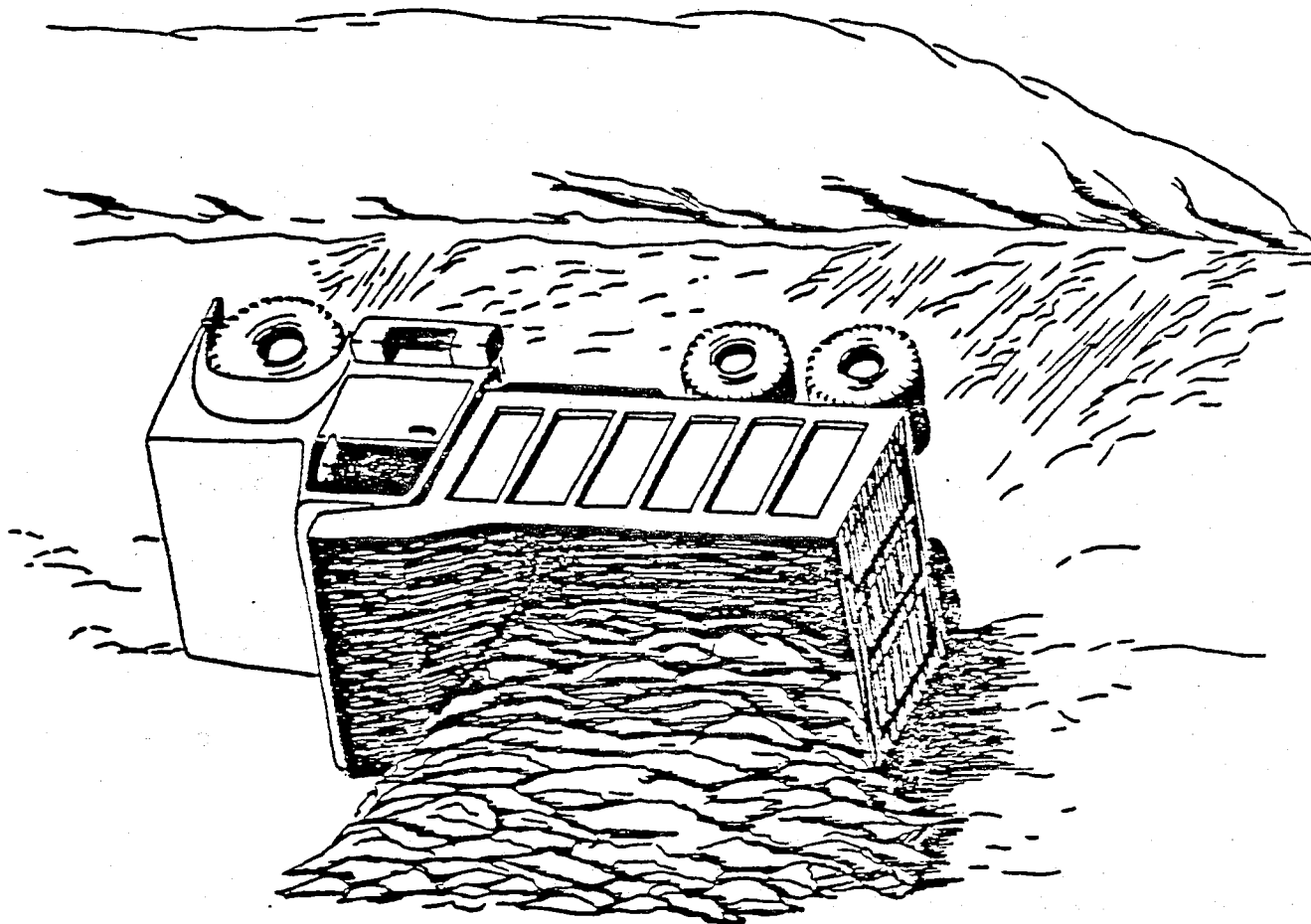
HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

Excerpts from Code of Federal Regulations
Part 77--Surface Coal Mines and
Surface Work Areas of Underground Coal Mines
Subpart Q--Loading and Hauling

Sections 77.1605 - 77.1606

In today's session we will continue discussing the safety standards as they pertain to loading and haulage. First, however, let's look briefly at a surface haulage fatality.

- An evening shift dump truck operator backed his truck up the dump ramp on a topsoil stock pile to place his load of dirt. When the truck reached the top of the stock pile, it approached the outer edge of the ramp and began to sink into soft material. The edge of the elevated ramp gave way allowing the truck to overturn. The dump truck operator was thrown beneath the truck where he received fatal crushing injuries.



Compliance with some of the following standards may have prevented this accident.

Section 77.1605--Loading and haulage equipment; installations.

- (A) Cab windows shall be of safety glass or equivalent, in good condition, and shall be kept clean. Cracks or discolorations in the cab windows can be tolerated provided that the vision of the operator is not impaired or distorted or in the case of windshields, the crack is located where it will not damage the windshield wiper blades. Plexiglass may be used in lieu of safety glass in cab windows if the transparency is not impaired by scratches or discoloration.
- (B) Mobile equipment shall be equipped with adequate brakes, and all trucks and front-end loaders shall also be equipped with parking brakes.
- (C) Positive-action type brakes shall be provided on aerial tramways.
- (D) Mobile equipment shall be provided with audible warning devices. Lights shall be provided on both ends when required.
- (E) Guard nets or other suitable protection shall be provided where tramways pass over roadways, walkways, or buildings.
- (F) Guards shall be installed to prevent swaying buckets from hitting towers.
- (G) Aerial tramway cable connections shall be designed to offer minimum obstruction to the passage of wheels.
- (H) Rocker-bottom or bottom dump cars shall be equipped with positive locking devices, or other suitable devices.
- (I) Ramps and dumps shall be of solid constructions, of ample width, have ample clearance and headroom, and be kept reasonably free of spillage.
- (J) Chute-loading installations shall be designed so that the men pulling chutes are not required to be in a hazardous position during loading operations.
- (K) Berms or guards shall be provided on the outer bank of elevated roadways.

"Berm" as used in this requirement means a pile or mound of material at least axle high to the largest piece of equipment using such roadway, and as wide at the base as the normal angle of repose provides. Where guardrails are used in lieu of berms, they shall be of substantial construction.

The width of the haulage road does not preclude the need for berms or guardrails. The requirements of Section 77.1605(K) apply to that part of an elevated haulage road where one bank is, or both banks are, unprotected by a natural barrier which will prevent vehicles or equipment from running off and rolling down the unprotected bank or banks.

"Elevated roadways", as used in this requirement, are roadways of sufficient height above the adjacent terrain to create a hazard in the event mobile equipment ran off the roadway.

(L) Berms, bumper blocks, safety hooks, or similar means shall be provided to prevent overtravel and overturning at dumping locations.

(M) Roadbeds, rails, joints, switches, frogs, and other elements on railroads shall be designed, installed, and maintained in a safe manner consistent with the speed and type of haulage.

(N) Where practicable, a minimum of 30 inches continuous clearance from the farthest projection of moving railroad equipment shall be provided on at least one side of the tracks; all places where it is not possible to provide 30-inch clearance shall be marked conspicuously.

(O) Track guardrails, lead rails, and frogs shall be protected or blocked so as to prevent a person's foot from becoming wedged.

(P) Positive-acting stop-blocks, derail devices, track skates, or other adequate means shall be installed wherever necessary to protect persons from runaway or moving railroad equipment.

(Q) Switch throws shall be installed so as to provide adequate clearance for switchmen.

(R) Where necessary, bumper blocks or the equivalent shall be provided at all track dead ends.

Section 77.1606--Loading and haulage equipment; inspection and maintenance.

(A) Mobile loading and haulage equipment shall be inspected by a competent person before such equipment is placed in operation. Equipment defects affecting safety shall be recorded and reported to the mine operator.

(B) Carriers on aerial tramways, including loading and unloading mechanisms, shall be inspected each shift; brakes shall be inspected daily; ropes and supports shall be inspected as recommended by the manufacturer or as physical conditions warrant. Equipment defects affecting safety shall be reported to the mine operator.

(C) Equipment defects affecting safety shall be corrected before the equipment is used.

Mobile loading and haulage equipment shall be inspected by a competent person before such equipment is placed in operation at the beginning of each shift. Any defects found affecting safety during the required inspection shall be recorded and reported to the mine operator.

Lost Tempers Cause Accidents

Mr. Average Man can lose his temper several times a week.

And each time he does, the National Safety Council notes, the chances of an anger-caused accident are increased.

No one knows how many accidents are caused by anger, because a person seething with rage can hide it well and the casual observer is unaware that anything is wrong.

Recent studies at Columbia University and Oregon State College showed that the man who loses his temper several times a week usually gets mad at inanimate objects. Women, according to the study, usually become mad at other persons.

People get angry most often just before breakfast, lunch, and dinner. Both men and women are most irritable on an empty stomach.

Doctors and lawyers lose their tempers least often; executives and skilled workers are next; office workers and laborers most frequently of all, according to an American Medical Association survey.

Only 15 per cent felt better after losing their tempers, and two-thirds were left feeling irritable and fatigued, according to the studies.

At the University of Pennsylvania, pictures of extremely angry people were shown to hundreds of college students. Only 2 per cent were able to identify the emotion as anger.

So, the next time you're trying to impress someone by showing how mad you can get, stop first and think about what you might look like to them.



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

How Many Horses Do You Use

Ever stop to think about how many of our expressions use the word "Horse" in them? Did you ever say --

big as a horse?
works like a horse?
eats like a horse?
don't look a gift horse in the mouth?
he was on his high horse?
that's a horse of a different color?
aw, horse radish?
he was just horsing around?
his lucky horse show?
the size of a horse chestnut?
tough as horse hide?
big as a horse fly?
stiff as horse hair?
gave him the old horse laugh?
watched an old horse opera on the TV?
cowboy's horse pistol?

Yes--the poor old horse gets the blame for a lot of things, but why do we insult him by calling poor judgment "Horse play"? Nobody ever saw a horse pull a chair from under someone, or throw a lighted firecracker near someone, or turn a compressed air hose on somebody. The poor old horse was never guilty of lots of things commonly called horse play.

Perhaps the one thing we need most is one more "Horse". Good old fashioned "horse sense".

They say that horse sense is the result of stable thinking. Let's all do a little more stable thinking, use more horse sense and have less horse play. O.K.?



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

"He Used To Be . . ."

He used to be a real "hurry-wart." First one off the mancar-- first out of the mine. First one out of the plant. First one through the intersection . . . but there's no rush now. He's got lots of time--an eternity of time.

He used to be a great grumbler. Griped about all the stupid people he worked for. Griped at safety meetings about all the "dull guff" he had to listen to . . . but there's no grumbling now. He's quiet, real quiet.

He used to be the super-aggressive type. Bulled his way through. Pulled disconnects and cut wires without bothering to look or think . . . but there's no blind motion now. No motion at all.

He used to be full of the nervous fidgets. Jittered all over the job site and in the plant, jittered all through the day . . . but there's no jittering now. He's calm, real calm, and still.

He used to be the absent-minded kind. Forgot to signal. Forgot to look over the job. Forgot to check his tools and ropes . . . but there's no forgetting now. No remembering, either.

He used to be the chip-on-the-shoulder type. Had all the answers. No supervisor or crew leader could tell him what to do. He'd do it his way . . . but there's no back-talk now. No talk at all.

He used to be the real dare-devil. Loved to risk his neck. Loved to take the dangerous shortcut. Got a real kick out of taking chances . . . but there's no chance-taking now. No taking anything, not even a breath.

"He used to be . . ." A sad story that will be written again and again and again. As long as we don't eliminate our serious faults, there's no exaggeration about that now. It's right. It's dead right.



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

FATALITIES RELATED TO SAFETY BELTS, SAFETY LINES, OR
LANYARDS, 1978-1979

Introduction

Fatal Accident Investigation Reports concerning accidents which could have been prevented or mitigated by the use of safety belts, safety line and lanyards occurring in 1978 and 1979 have been summarized and analyzed in this report. This study shows a need for the enforcement of the use of safety belts, safety lines, or lanyards. Drawings, technical data, and a discussion of various types of safety equipment that can be used to assist mine operators in the safe and proper use of safety belts, safety lines, or lanyards are included.

Analysis

According to accident/injury data on file at HSAC for the years 1978 and 1979, there were 33 fatalities in the mining industry directly related to improper use or failure to wear safety belts or safety lines and one fatality resulting from the failure or breakage of the safety equipment (lanyard). The majority of the fatalities, twenty-six, occurred in metal/nonmetal mining, the remaining eight in coal mining.

Accident investigations show that eleven of the metal/nonmetal fatalities occurred as a result of management's failure to provide safety belts, safety lines, or lanyards. Failure of the miner to wear safety equipment provided by the mining company accounted for twelve of the fatalities. The remaining three accidents resulted from safety equipment being improperly worn.

In coal mining, analysis of the eight fatal accident investigations show that four accidents occurred because the miner failed to wear provided safety equipment. Three of the eight fatalities occurred due to management's failure to provide the necessary safety equipment. The remaining fatal injury was a direct result of a safety lanyard failure.

Table 1.--Fatalities related to safety belts,
safety lines, or lanyards (1978-1979)

	M/NM			Coal			Com- bined total	To- tal %
	1978	1979	Sub- total	1978	1979	Sub- total		
Failure to wear provided safety belts or lines	7	5	12	3	1	4	16	47
Failure of mining company to provide safety belts or lines	8	3	11	0	3	3	14	41
Failure to wear safety belts or lines in a proper manner	2	1	3	0	0	0	3	9
Failure of provided safety lanyard	0	0	0	1	0	1	1	3
TOTALS	17	9	26	4	4	8	34	100

In four metal/nonmetal accident investigations and two coal accident investigations it was found that the victim was standing on material that was being drawn from below without wearing safety equipment.

Sixteen (47 percent) of the accidents during this period occurred as a result of failure of the victim to wear company provided safety equipment. This indicates inadequate indoctrination or training of employees in recognizing hazardous situations and locations where wearing of the provided safety equipment is necessary.

Table 2.--Failure to wear safety belts
under hazardous working conditions

	1978		1979		Combined total
	M/NM	Coal	M/NM	Coal	
Working at elevations	2	2	1	1	6
Working at open chute or raise	2	0	0	0	2
Entering storage bins	2	0	2	0	4
Standing on loose material above feeder	0	1	1	0	2
Working from a raised truck bed dumping into feeder	1	0	0	0	1
Working above crusher	0	0	1	0	1
TOTALS	7	3	5	1	16

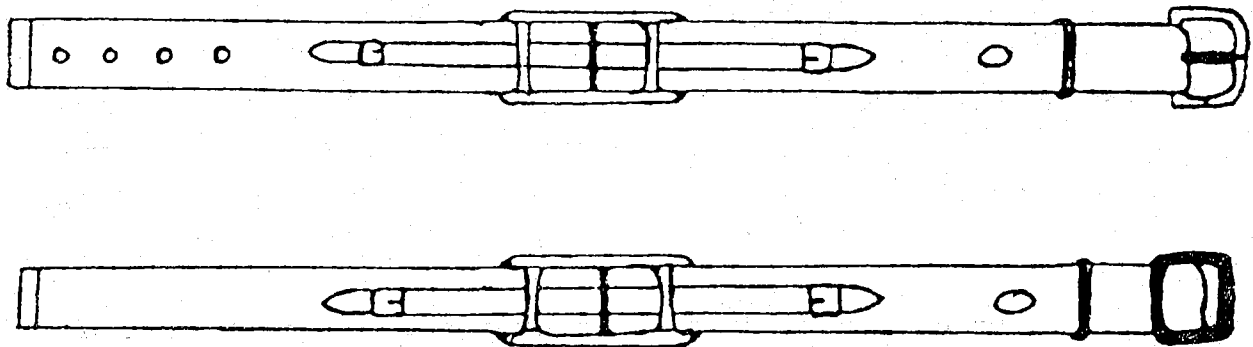
A training program demonstrating proper selection and use of safety belts, safety lines, or lanyards should be established. The importance of close job supervision regarding the use of safety equipment under hazardous conditions must be stressed by the coal and metal/nonmetal mining industries.

Acceptable safety gear worn in a correct manner at the appropriate time can and will save lives. The following information has been assembled to illustrate various types of safety belts, lanyards and their correct use.

DISCUSSION OF SAFETY BELTS, HARNESSSES, BUCKLES, SNAPHOOKS, AND LANYARDS

Safety belts are made by numerous manufacturers. An acceptable criteria for safety equipment is ANSI A 10.14 requirements (American National Standard Requirements for Construction and Industrial Safety Belts, Harnesses, Lanyards, Lifelines, and Drop Lines), this standard being the guide used for compiling the following discussion.

Types of Belts and Uses



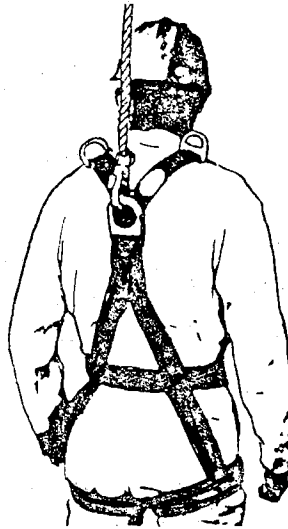
Body Belts
Figure 1.

Body belts or waist belts (figure 1) are a simple or compound strap with a means of securing it about the waist. One or two "D" rings are generally incorporated in the belt for securing a lanyard. A single "D" ring attached to a lanyard should be located in the center of the back. Strength members of safety belts may be made of any material except leather. Body or waist belts (workbelts) are generally used to restrain a person and to reduce the probability of falling.



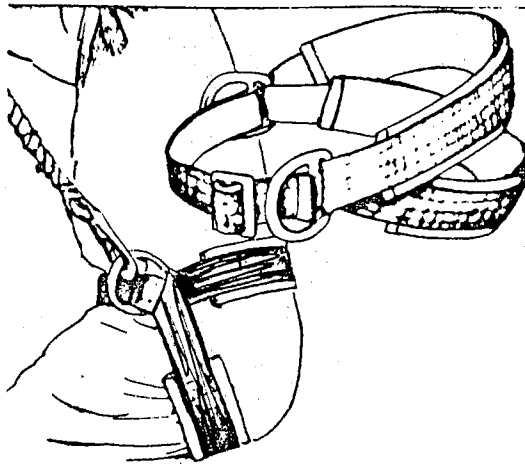
Chest Harness
Figure 2.

A chest-waist harness (figure 2) consists of a chest belt, a waist belt, and attaching shoulder straps that insure proper chest strap positioning and has provisions for attaching a lanyard ("D" ring) located in the back between the shoulder blades. Chest-waist harnesses are designed to spread fall forces over the chest and waist, dividing the impact force. Chest-waist harnesses are used where there are limited fall hazards (no vertical free fall hazard) and for retrieval (removing a person from a bin or tank).



Body or Parachute Harness
Figure 3.

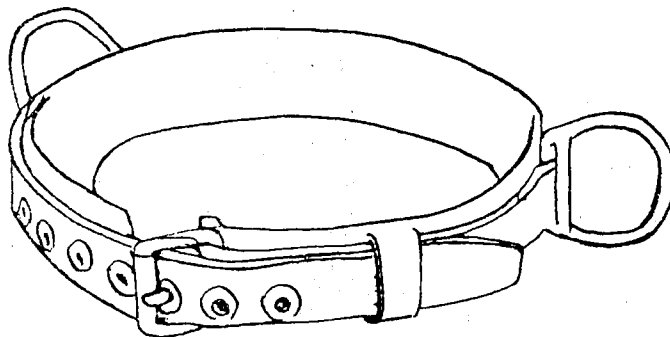
Body or parachute harness (figure 3) features a waist belt, two leg belts, and a harness from each leg strap over the shoulders and back to the leg strap. The harness webbing is double constructed to allow the waist belt to be inserted through pockets sewn in the harness. Three "D" rings are usually mounted on the harness, one between the shoulder blades and one near the top of each shoulder for lifeline attachments in different situations. This harness is used to arrest the most serious free falls. The body harness distributes fall forces over the chest, waist, and legs. The belt is ideally used in hoisting and lowering a man, and will withstand maximum pull.



Multi-Purpose or Suspension Belts
Figure 4.

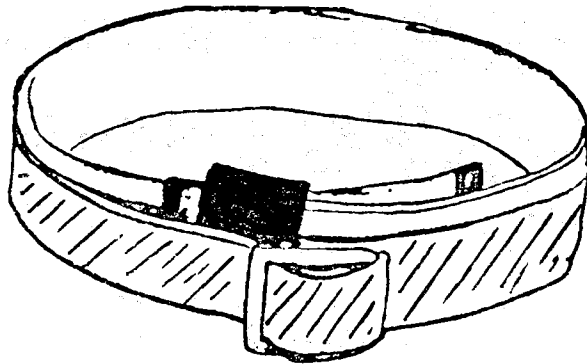
Multi-purpose or suspension belts (figure 4) have greater versatility in that they can be used as a waist belt, a positioning belt, and a lowering or lifting belt. They are generally used as a work support to suspend or support the worker.

Buckles for Belts



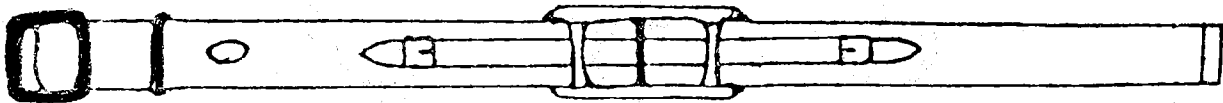
Tongue Buckle Type
Figure 5.

Safety belts are supplied with a variety of buckles. Tongue buckles with drop-forged steel frames depend upon a tongue passed through grommet re-enforced holes in the webbing or other strength member of the belt to maintain its position. When grommets are inserted through a web belt, the fibers should be separated or spread, and the grommet inserted between the fibers. Cutting fibers during grommet installation weakens the belt and could cause belt failure.

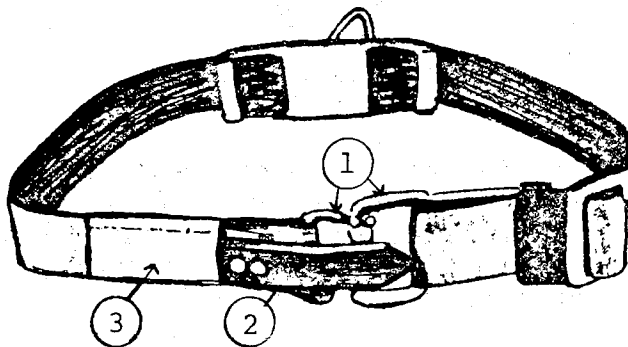


Friction Buckle
Figure 6.

Friction buckles (figure 6) can be either drop-forged or stamped steel. The single pass fixed bar type (figure 7) maintains its position on the webbing by means of a single pass of the webbing over the fixed center bars. The single pass, sliding bar type maintains its position on the webbing by means of a single looping of the webbing over the sliding center bar. The double pass friction type maintains its position on the webbing by friction and requires a double pass of the webbing over the center bar.



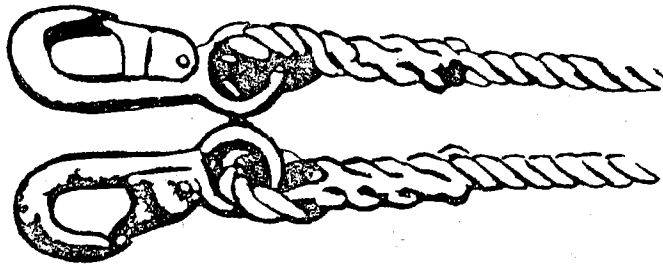
Single Pass Type
Figure 7.



Quick Release Buckle
Figure 8.

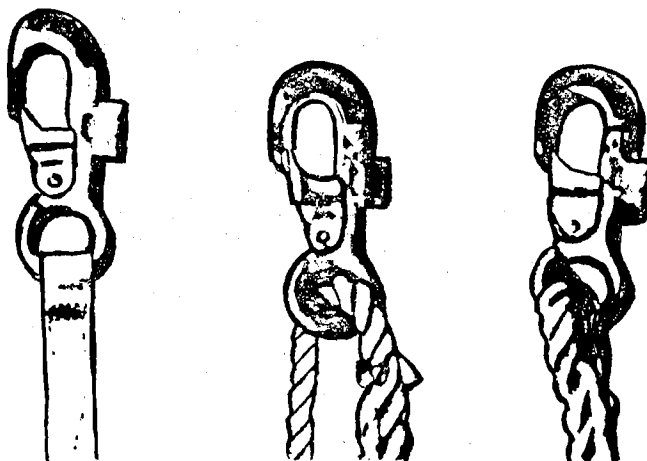
The quick release buckle (figure 8) consists of three parts: (1) an engaging frame, (2) a locking lever with a keeper tongue assembly, and (3) a keeper tunnel. This multiple component buckle can be released with one positive action, while the releasing action remains positively locked in normal use.

Snaphooks



Single Lock Snaphooks
Figure 9.

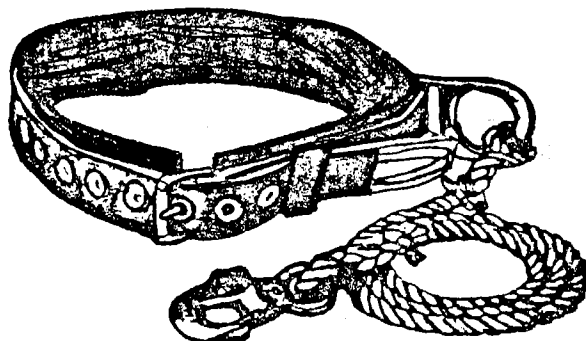
"D" rings and snaphooks used to secure a lanyard to the safety belt are drop-forged steel. Circle designed "D" rings are proportioned to minimize the possibility of accidental disengagement of a snaphook by depression of the snaphook keeper latch. Snaphook proportions are also made to minimize accidental disengagement. The snap nose restrains the keeper to absorb side loads. Single-lock snaphooks (figure 9) are not "roll-out" proof under all conditions.



Double Lock Snaphooks
Figure 10.

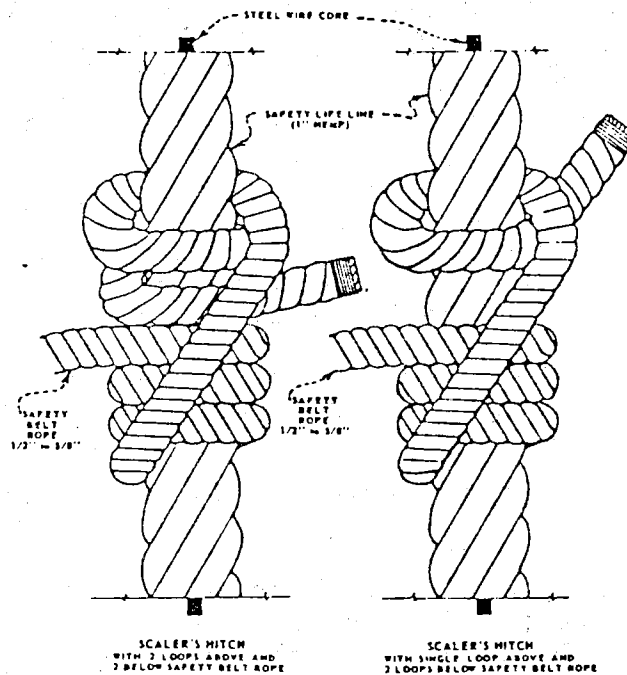
Double-lock snaphooks (figure 10) provide maximum safety. Double-lock snaps should always be used if the mating ring is less than 2-1/2 inches inside diameter. Mated "D" ring and snaplocks should be used to prevent the ring from bringing pressure on the keeper with resulting release or roll out.

Lanyards



Belt and Lanyard
Figure 11.

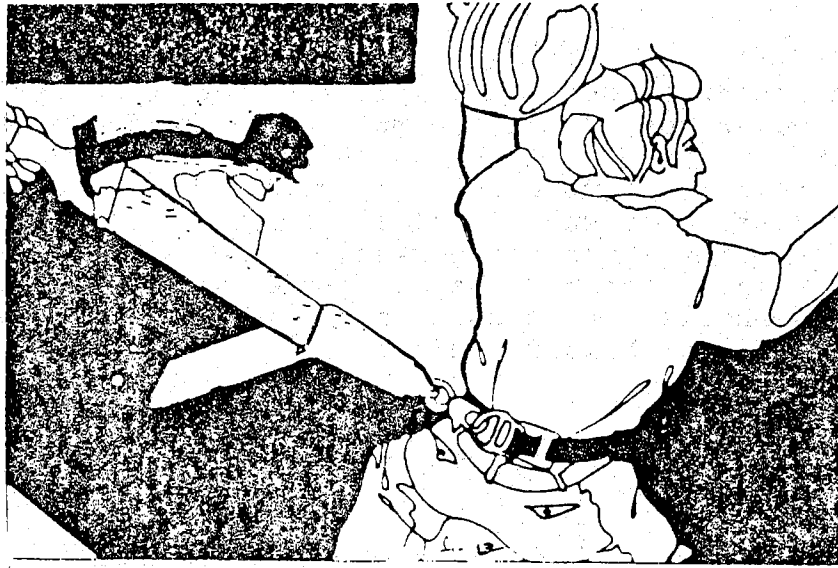
Rope lanyards (figure 11) can be spliced directly to the belt through an integral rope loop, spliced to a "D" ring, or a snaphook for attaching to the "D" ring. Splices to hardware should be made over suitable thimbles. Lanyards should be anchored to limit a possible fall to no more than six feet, the distance used in design and testing of safety belts. Lanyards should be attached to an anchor point above the worker. Users should not climb above the anchor point. Lanyard should fasten to the back of the belt. Wire lanyard should not be used where impact loads are anticipated or where electrical hazards exist.



Scalers Hitch (Pigtail)
Figure 12.

Whipped end taglines or lanyards are sometimes secured to lifelines using a scalers hitch (figure 12). Grasping the hitch in the hand allows it to slide along the lifeline, when the knot is released it automatically clinches around the lifeline. This arrangement provides freedom of movement to the workman without an overly long safety rope.

Belts and lanyard assemblies should be visually inspected for defects prior to each use. Additional attention is required for belts and lanyard assemblies used around welding or cutting which may cause weakening from burns.



Shock Absorber
Figure 13.

All safety equipment covered in this discussion can also be equipped with shock absorbing elements to cushion the impact and reduce injury from free fall stopping forces (figure 15).

TESTING OF SAFETY BELTS, HARNESSSES, BUCKLES, LANYARD, SNAPHOOK AND "D" RINGS

Some ANSI A 10.14 test criteria for safety belts, harnesses, and appurtenances are:

Samples of each type of belts, harnesses, and lanyards as units shall withstand without failure a test consisting of three successive drops of a 250 pound (113 Kg) rigid weight falling free through a distance of six feet (1.8 M).

Body belts (class 1) with their associated lanyards when subject to a fall shall produce a stopping force of not more than ten times gravity.

Chest harnesses (class 11) and suspension belts (class IV) shall not be used for stopping falls and are not subject to impact requirements.

Body harness (class 111) and its associated lanyards when subject to a fall shall produce a stopping force of not more than 35 times gravity.

Tongue buckle frame shall be capable of withstanding a tensile test of four thousand (4000) pounds (1815 Kg) without failure.

Friction buckles shall withstand a tensile strength test of four thousand (4000) pounds (1815 Kg) without failure.

Quick release buckles shall withstand a tensile strength test of four thousand (4000) pounds (1815 Kg) without failure.

"D" rings and snaphooks shall withstand a five thousand (5000) pound (2300 Kg) tensile test without failure.

Fixed anchorages must be capable of supporting a minimum dead weight of 5400 pounds (2450 Kg) per worker.

Lifelines must be capable of supporting a minimum dead weight of 5400 pounds (2450 Kg) per person applied at the center of the life line.

Belts, harnesses and lanyards which have been subjected to drop tests shall not be used except for display or education.

January 10, 1978

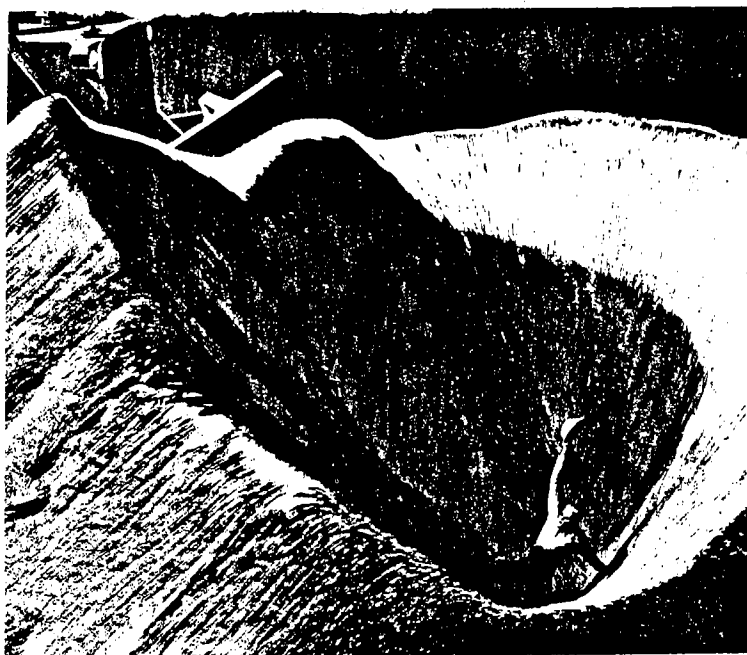
An ironworker apprentice, age 34, was fatally injured when he fell approximately 66 feet following breakage/failure of his lanyard. He had 2 1/2 years experience as an ironworker trainee, the last 3 1/2 months of which were at this mine.

Cause of accident: This accident occurred when management failed to recognize a hazardous condition in that ironworkers were allowed to use lanyards as a primary means of support and were not using safety lines. A contributing factor was the use of lanyards constructed of combustible material in an area where cutting torches were being used and the lanyards were subjected to heated surfaces.

January 28, 1978

A conveyor operator, age 36, died as a result of suffocation when he slipped and fell into a surge pile draw hole. His total mining experience was 18 months, all at this mine.

Cause of accident:
Failure of management to provide safety belts and lines and have a second person attend the line while work was being performed where a fall could occur and failure to provide a safe access and work platform at the conveyor for checking plug-ups and hang-ups. A contributing factor was the victim placing himself in an unsafe position on the surge pile next to an open draw hole while material was being drawn out from below.



February 4, 1978

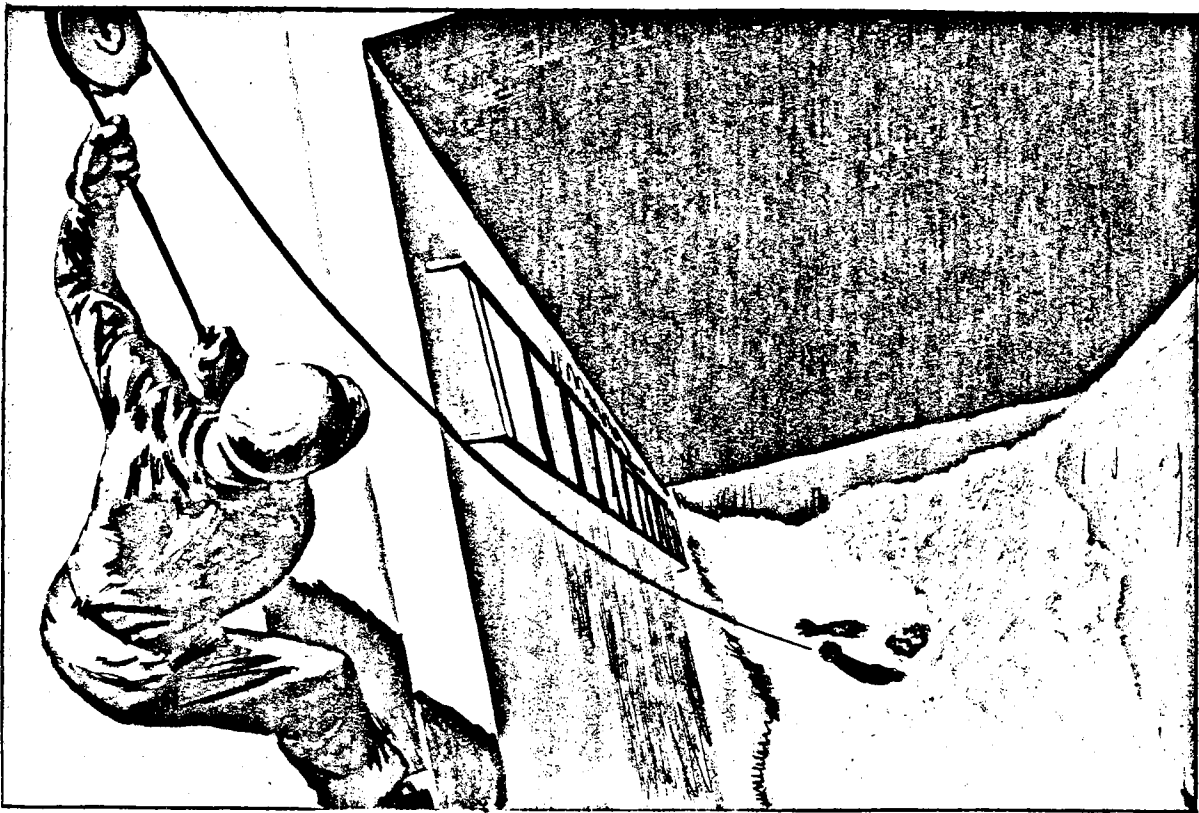
A drillers helper, age 18, was fatally injured when he tripped on the edge of a concrete pad around the collar of a 60-inch diameter drill hole and fell approximately 650 feet into the open hole. He had 4 months job experience.

Cause of accident: Management's failure to enforce the use of safety belts and lines while working in an area where the danger of falling exists, and failure to cover or guard drill holes immediately after drilling is complete.

February 13, 1978

A laborer, age 35, was fatally injured when he was trapped by several tons of dust which slid into the hopper in which he and another man were working. He had a total of 14 years mining experience, all with this company; the last 5 years as a laborer.

Cause of accident: Failure of management to provide safety belts and lines with a second person attending the line while work is being done in dangerous areas. Also, management's failure to establish and enforce safe procedures for cleaning hoppers.



February 15, 1978

A front-end loader operator, age 48, died as a result of suffocation when he was engulfed by sand and gravel as he attempted to free a hang-up in a hopper. His known mining experience was 3 1/2 years, all at this mine.

Cause of accident: Failure of management to provide a safety belt and line with a second person attending the line while work is performed in hoppers, and failure to enforce company safety rules and regulations by allowing employees to enter hoppers on top of bridged material.

April 17, 1978

An oiler, age 55, suffered fatal injuries when he fell approximately 105 feet while performing maintenance work along an elevated walkway located along the boom of a dragline. He had 35 years of mining experience including 12 years as an oiler.

Cause of accident: The direct cause of the accident could not be determined during the investigation. Failure to provide and enforce the use of safety belts or equivalent safety devices for persons who work in an elevated area where there is a danger of falling contributed to the severity of the accident.

April 26, 1978

An ironworker (connector), age 21, died from injuries received when he fell or jumped approximately 56 feet from a freestanding column. He had 2 years and 3 months experience as an ironworker, 3 months on this job.

Cause of accident: Management's failure to strictly enforce safety rules and regulations requiring all employees to properly use provided safety belts and tag lines while working in situations where movement was not required. Failure in the design of the anchor bolts was a contributing factor.

May 23, 1978

An ironworker, age 27, was fatally injured when he fell approximately 35 feet while attempting to unhook a chocker cable from a belt conveyor gallery tube. He had 5 years experience as an ironworker.

Cause of accident: Failure of management to provide a safe means of access and a safe work area on top of the belt conveyor gallery tube. Contributing factor was supervision's failure to enforce the use of safety belts and lines when working where a danger of falling exists.

May 23, 1978

A mill operator helper, age 42, died as a result of suffocation when he was buried under minus 1-inch crushed limestone. He fell into a feeder bin while attempting to unplug an 11-inch feeder pipe supplying the bin. He had 9 years mining experience and 1 1/2 years at this job classification.

Cause of accident: The direct cause of the accident was failure of management to provide a safe means of access to the 11-inch feeder pipe for clean-out purposes. Failure to wear the provided safety line and the fact that the victim was working alone for several minutes were factors which contributed to the severity of this accident.

July 5, 1978

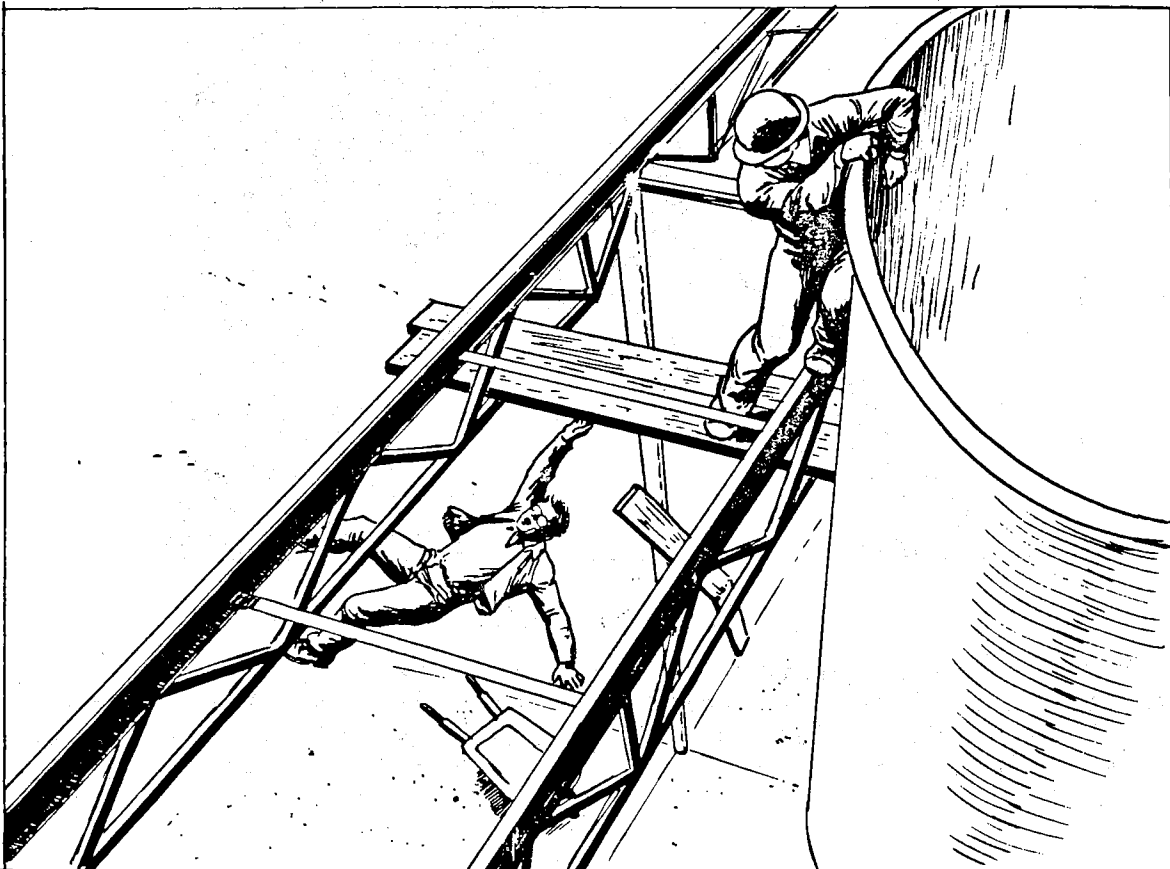
A maintenance foreman, age 37, died as a result of asphyxiation when he was trapped by several tons of sand which slid from the side of the bin-silo in which he was working. His total mining experience was 18 years, the last 6 years in this job classification.

Cause of accident: The primary cause of the accident was the failure of management to provide a safe means of access for employees whose duties require them to enter bin-silos. Collateral to the primary cause was the victim placing himself in an unsafe position by attempting to "trim down" material which was located above him. Contributing to the severity of this accident was the improper tie-off of the safety line.

July 7, 1978

A master electrician, age 60, was fatally injured when he fell approximately 65 feet from an elevated work platform while performing maintenance work. He had 34 years mining experience, 5 years and 2 months as an electrician.

Cause of accident: The direct cause of this accident was failure of management to provide the work platform with adequate handrails to prevent a person from falling. A contributing factor was the victim working at an elevated area where there was a danger of falling without utilizing a safety belt.



July 21, 1978

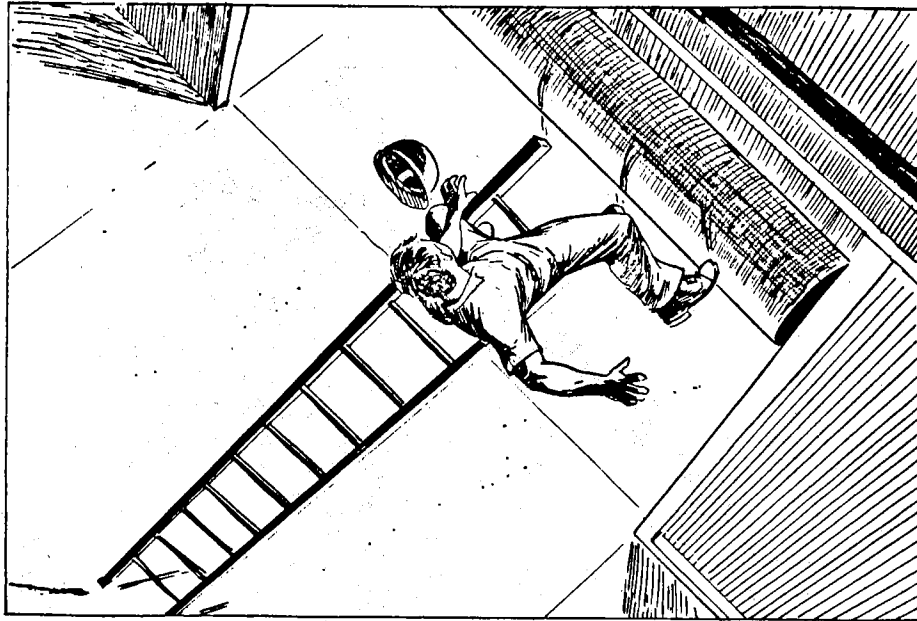
A miner, age 48, was fatally injured when the roof of a building on which he was standing broke and he fell approximately 26 feet to the floor below. His known mining experience was 2 years, all at this facility.

Cause of accident: The direct cause of this accident was supervision allowing employees to stand on unsuitable material (manufacturer specifically cautioned against standing on roofing). Failure to require the use of safety belts and lines was a contributing factor.

August 12, 1978

A repairman, age 37, died as a result of skull injuries received when he fell approximately 15 feet from an overhead door while repairing a slurry line. His total known mining experience was 4 years, 6 months at this job.

Cause of accident: The direct cause of the accident was the failure of management to enforce the use of proper equipment for performing work in an elevated location. (There was a scaffold platform in the area and safety belt and line in the victim's locker that were not used.)



September 19, 1978

A front-end loader operator, age 55, was fatally injured when the bridge of material he was standing on collapsed and buried him under approximately 6 feet of fine stone. He had 32 years total mining experience, the last 23 weeks at this job classification.

Cause of accident: The cause of the accident was the victim placing himself in a hazardous position by walking on a pile of stone he knew was being drawn from the bottom. A contributing factor was failure of the victim to obtain the necessary safety equipment, i.e., safety belt and line, and failure to have a second person attend the lifeline.

September 27, 1978

A shift laborer, age 24, was suffocated when crushed rock engulfed him. He had entered the raw limestone feed bin to retrieve a wooden ladder. His total mining experience was 2 months, 2 days at this job.

Cause of accident: The primary cause of this accident was management's failure to establish a safe work procedure for entering bins. A secondary cause was failure of the victim to recognize a hazardous condition by working under hanging material and by using an excessively long safety line.

October 14, 1978

A contract miner, age 21, was injured when he slipped or fell into an ore-chute while making preparations for slushing. He died on 10/25/78. His total mining experience was 3 years and 8 months, all at this mine.

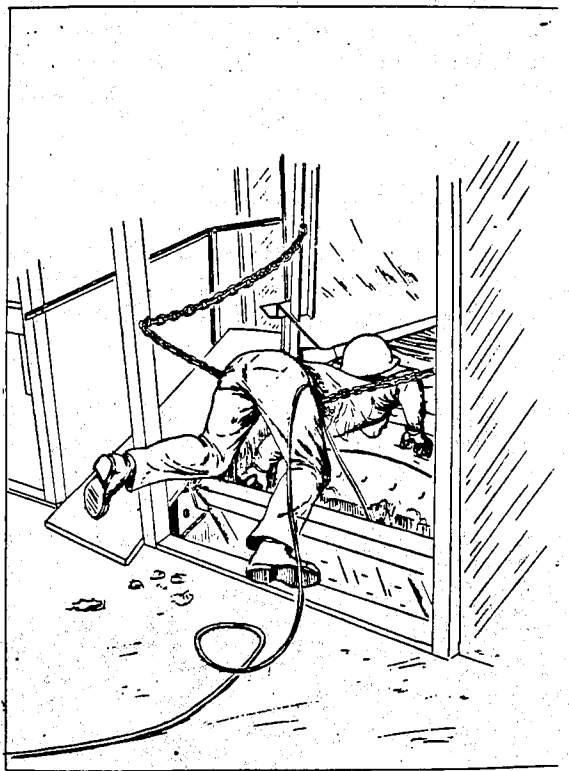
Cause of accident: The direct cause of the accident was the failure of management to properly enforce use of safety lines and belts and other safe means of working around an open ore-chute.



November 8, 1978

A primary crusher operator, age 17, was killed instantly when he fell from a pan feeder into a jaw crusher while trying to dislodge a large rock that was hung up in the crusher jaws. His total mining experience was 11 weeks, one week at this job classification.

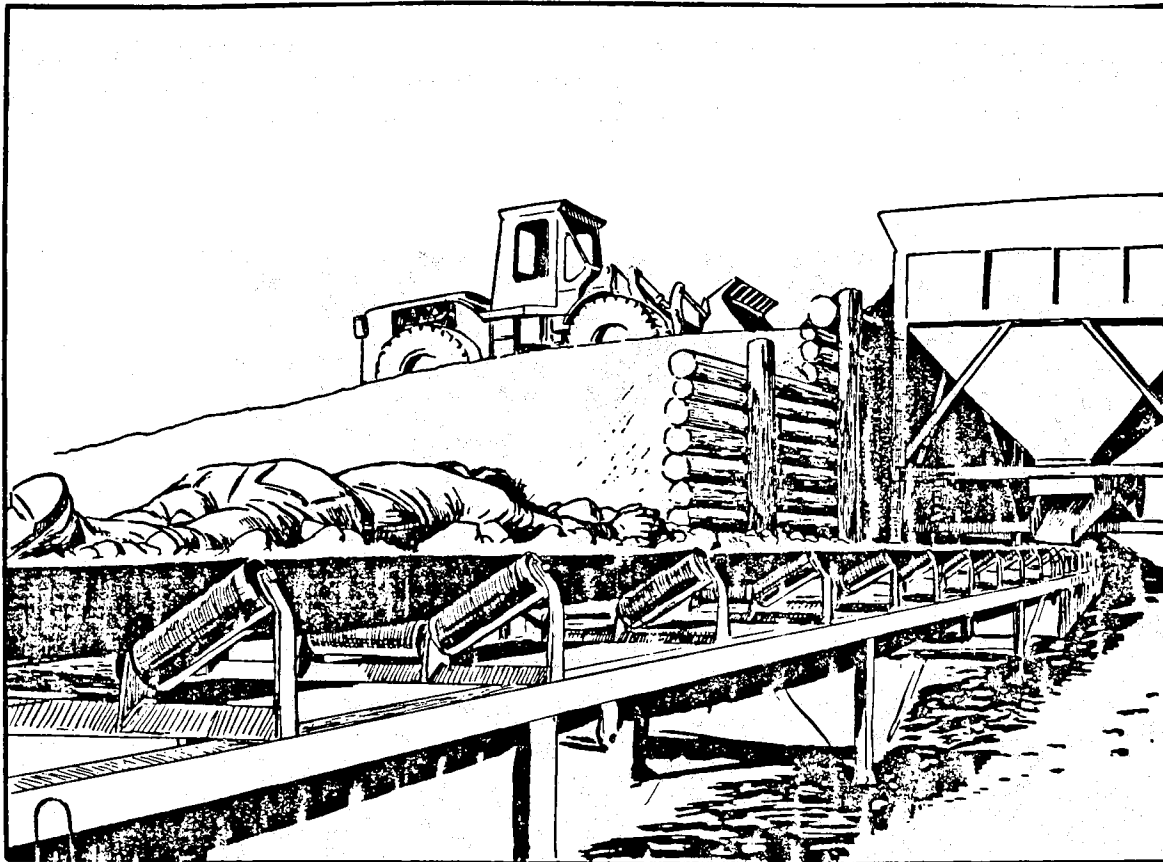
Cause of accident: The direct cause of the accident was the victim working at the mouth of the crusher while the crusher was in motion in disregard of established safe work procedures for removing large chunks from the crusher. Contributing to the severity of the accident was the fact that a safety belt and line was not provided.



December 2, 1978

A truckdriver, age 24, was buried and suffocated when the material he was standing on gave way, forcing him into a feeder bin. He was then gravity-fed through the feeder bin and onto the feeder belt and to the crusher. His known mining experience was 2 years and 4 months, all as a truckdriver.

Cause of accident: This accident was a direct result of supervision's failure to enforce established safety rules pertaining to the cleaning of dump truck beds. A safety belt and lines was not provided which contributed to the severity of the accident.



December 4, 1978

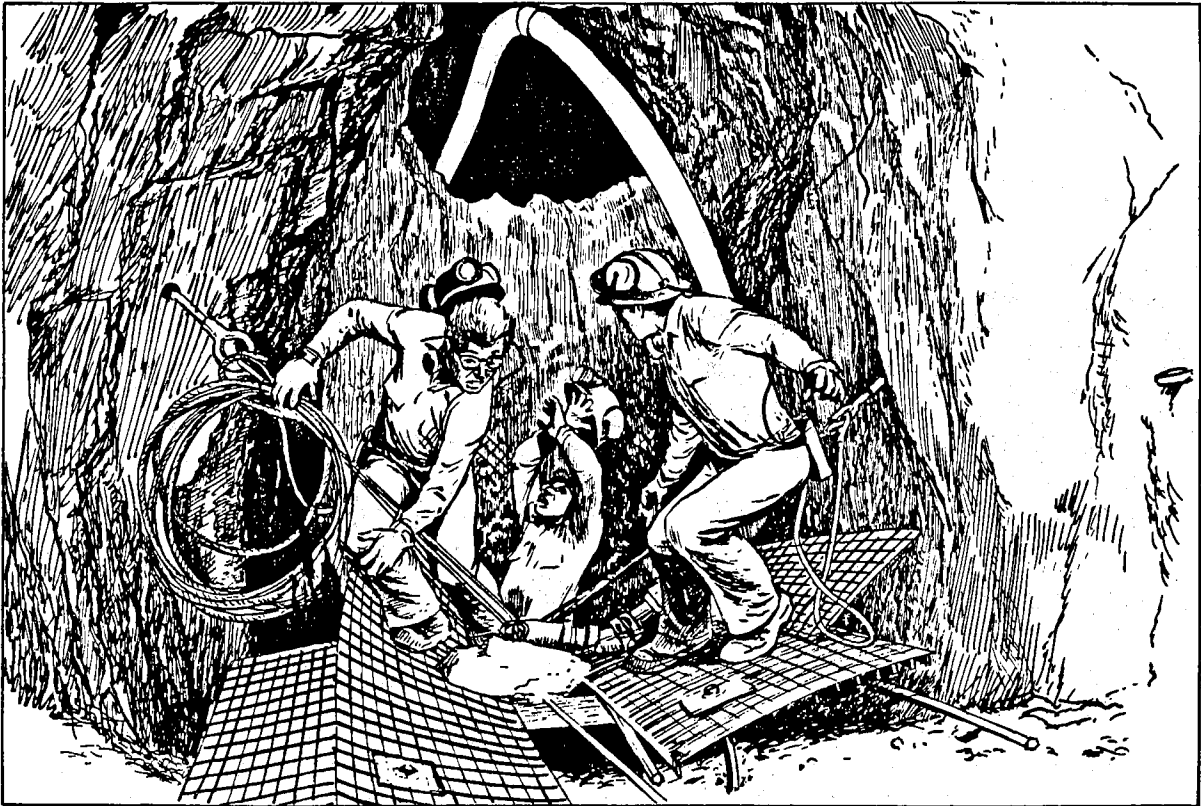
A mill operator, age 29, entered a limestone dust storage tank and was suffocated when buildup hanging on the bin sides slid in, covering him. His known mining experience was 4 years, all with this company.

Cause of accident: The direct cause of this accident was management's requiring employees to enter the bin when mechanical means for elimination of caked material could have been made available. Failure of the victim to obtain and properly use the provided safety equipment and failure to have a second person attend the lifeline contributed to the severity of the accident.

December 13, 1978

A shaft miner, age 30, was fatally injured when he fell 65 feet down a borehole. He had 3 1/2 years mining experience, the last 7 months at this job classification.

Cause of accident: The basic cause of this accident was failure of management to provide and enforce the use of safety lines of proper length. The victim was using a 20 ft. long cable sling.



December 27, 1978

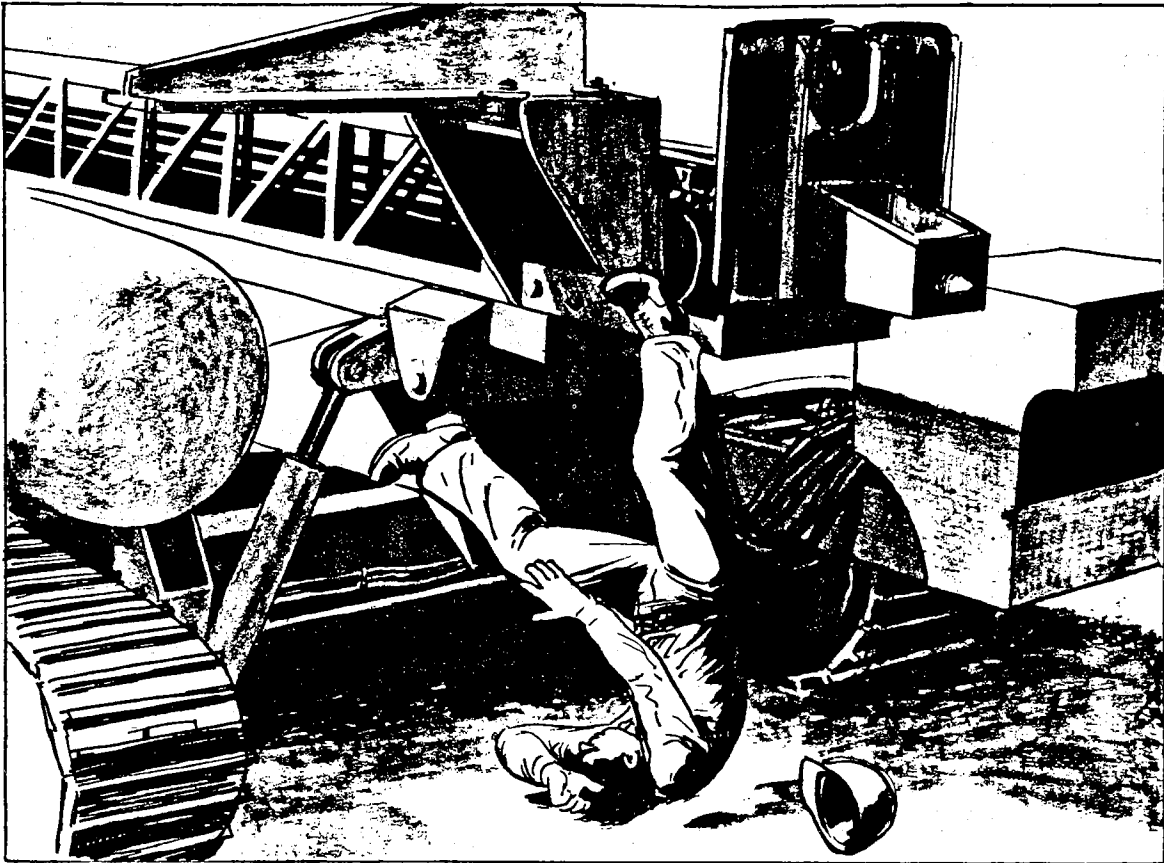
A mine laborer, age 19, was fatally injured when he fell approximately 70 feet down a vent raise when the work platform on which he was standing collapsed. He had 40 days mining experience.

Cause of accident: This accident was caused by a failure to provide a safe work platform. Management's failure to enforce the use of a safety belt and line contributed to the severity.

January 9, 1979

A mechanic, age 36, was severely crushed and received multiple skull fractures when he fell approximately 50 feet from a maintenance platform. He had a total of 10 years mining experience, 17 months at this occupation.

Cause of accident: The direct cause of this accident was failure of the work platform and defective crane controls. A contributing factor was failure of management to provide and enforce wearing of safety belts and lines at working sites where there is a danger of falling.



January 16, 1979

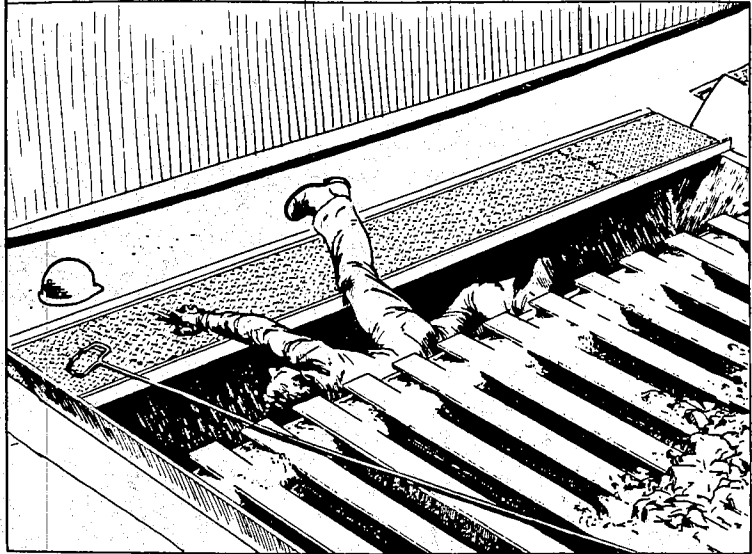
A general laborer, age 19, died as a result of suffocation when the material he was standing on collapsed and engulfed him. He had entered a finger raise, being pulled from the bottom, in preparation to enlarge or bell-out the finger at the top. He fell approximately 26 feet. His total known mining experience was 11 months.

Cause of accident: The primary cause of this accident was failure of management to provide a safe access and a safe work platform at the finger opening. Secondary to this primary cause was supervision's failure to enforce the use of a safety belt and line; also, the victim was allowed to perform work alone in an area where a hazardous condition existed.

January 18, 1979

A laborer, age 19, was fatally injured when he fell through a grizzly into a coal chute and was drawn into a rotating coal breaker. His total mining experience was 3 1/2 months, 5 days on this job site.

Cause of accident: A railing or barrier was not provided to prevent workmen from falling into the coal chute. Safety belts were not worn by the workmen who entered onto the grizzly over the coal chute where there was a danger of falling.



March 2, 1979

A mobile equipment operator, age 63, was fatally injured when he fell into a conveyor load-out cavity, 23 ft. width by 28 feet deep. He had 27 years total mining experience, 6 years at this facility.

Cause of accident: Victim entered coal storage area without an adequate communication system and without safety belts and lines provided.



March 20, 1979

A general laborer, age 22, suffered fatal head injuries when he slipped and fell 21 feet to a cement floor. His total mining experience was 2 months and 3 days.

Cause of accident: The direct cause of this accident was failure of management to establish a safe work procedure for handling palletted brick. Contributing factors were the inadequately protected work area created by the unnecessary removal of a railing section and failure to wear a safety belt and line while working near the opening.

April 7, 1979

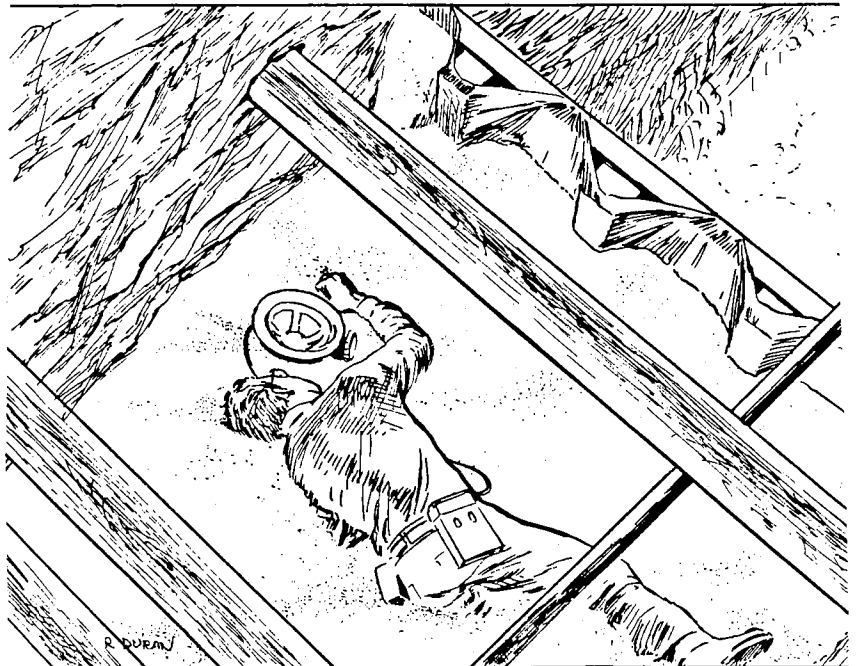
A kiln burner helper, age 22, died as a result of suffocation in a conveyor bin entrapment accident. He had a total of 10 months mining experience.

Cause of accident: The direct cause of this accident was failure to de-energize and lock-out the conveyor belt system. A contributory cause may have been the lack of communication between the loader operator and the victim. Also, entry into a bin without safety belt and tie-off line with a second person in attendance contributed to the severity of this accident.

June 4, 1979

A crusher helper, age 21, was fatally injured when he apparently fell or slipped into a gravity flow sand hopper (There were no witnesses to the accident). His total known mining experience was 4 months.

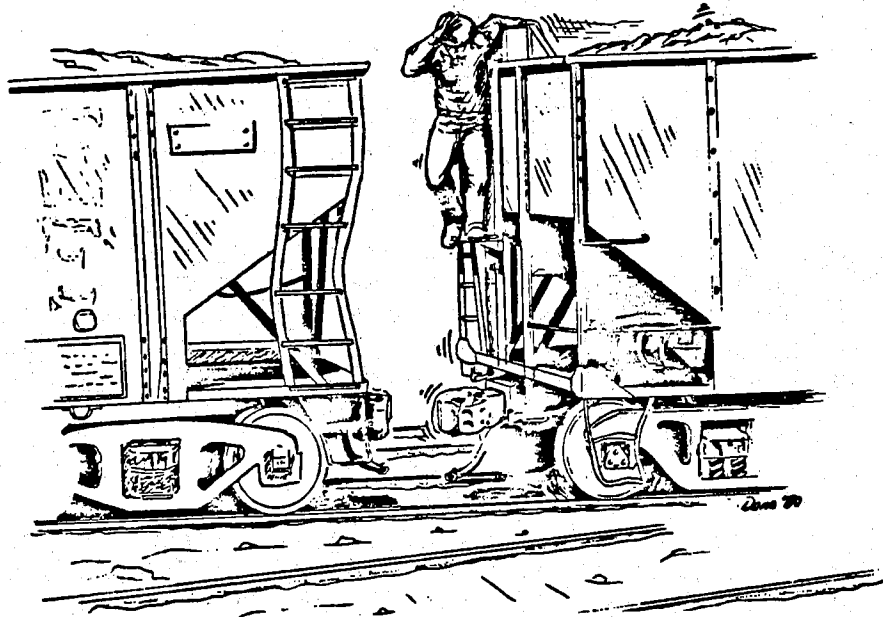
Cause of accident: The direct cause of this accident was failure of management to provide a safe work area with adequate guarding/handrails at the grizzly. Failure to provide and enforce the use of a safety belt and line where a danger of falling existed contributed to the severity of this accident.



June 8, 1979

A utility man, age 44, was fatally injured when he fell and was dragged approximately 124 feet between two railroad cars. He had 5 1/2 years total mining experience, all at this facility.

Cause of accident: The accident occurred due to failure of management to require persons dropping railroad cars to wear safety belts.



August 1, 1979

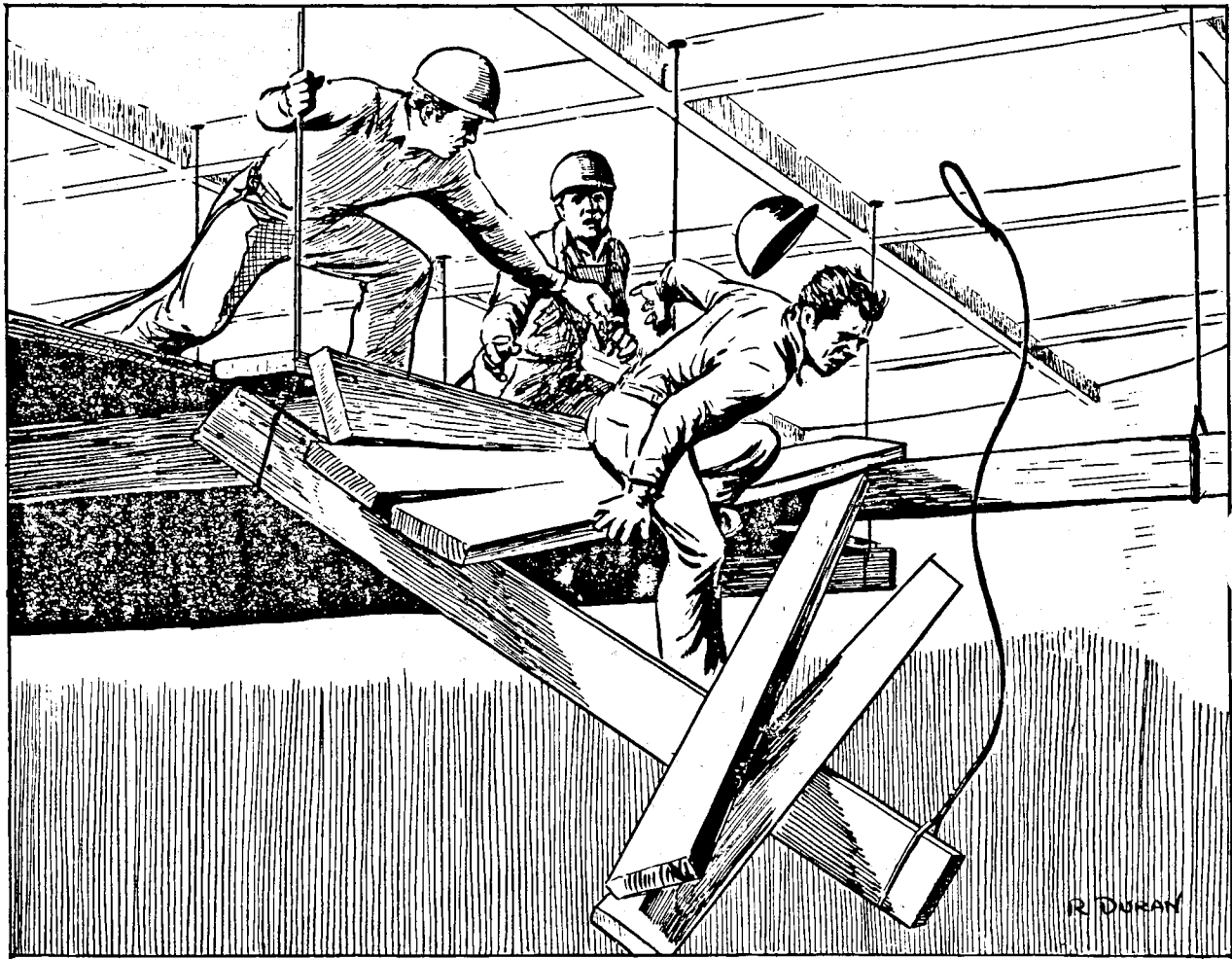
An assistant mill operator, age 36, died as a result of suffocation when he was buried under about 7 feet of crushed ore when the bridged material he was standing on collapsed. He had a total milling experience of 5 years and 10 months, all with this company.

Cause of accident: The primary cause of this accident was management's failure to establish a safe work procedure for entering storage bins. Lack of a reliable means for hook-up and failure to enforce the use of a safety belt and line, with a second person attending the lifeline, were contributing factors.

September 20, 1979

A welder, age 23, suffered fatal head and internal injuries when he fell approximately 26 feet from the second floor of the plant to the first floor while installing metal decking. He had 3 years construction experience including 2 years as a welder.

Cause of accident: The accident occurred because a safety belt or an equivalent means of protection was not used during the installation of metal decking. The major factor contributing to the disuse of the safety belts was failure of management to provide a means for attaching the belts that would provide the required movement needed by the employees while installing decking.

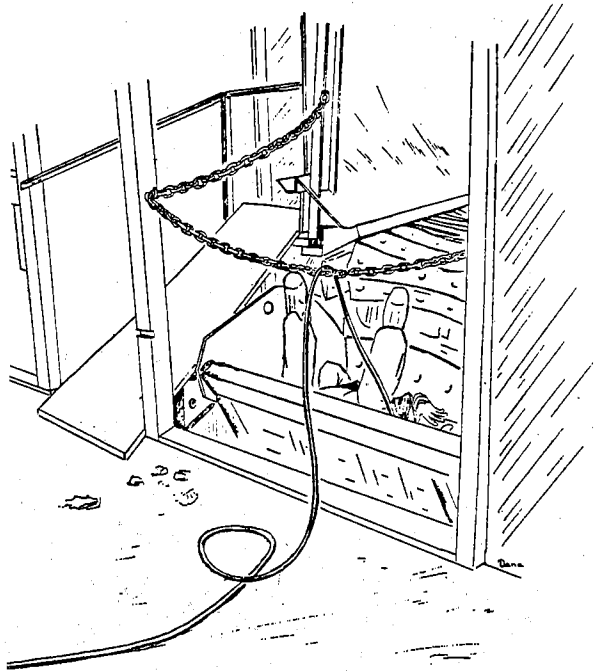


November 12, 1979

A crusher operator, age 68, suffered massive trauma to the entire body when he fell head first into a jaw crusher. He had 14 years experience with this company.

Cause of accident: The reason for the victim to be near or over the crusher cannot be determined as there were no witnesses to the accident. One or more of the following conditions contributed to the accident:

1. one of the chain guards may not have been secured;
2. failure to wear a safety belt and line;
3. the victim placed himself in an unsafe position too near the opening of the crusher



October 8, 1979

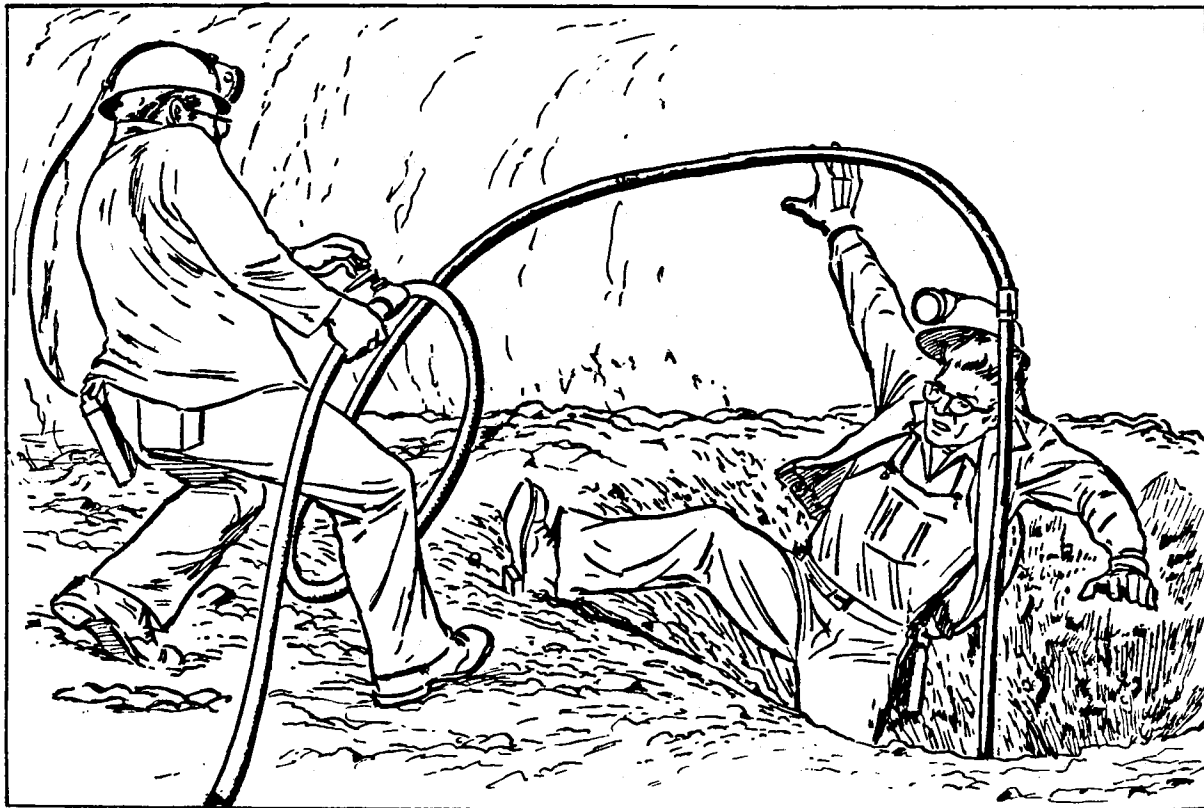
An ironworker, age 41, received fatal head injuries when he fell approximately 25 feet to the bottom of a cyclone. He had 17 years experience.

Cause of accident: The direct cause of this accident was failure of management to provide a safe means of entry and exit at the cyclone. Steps, handrails, or guards were not provided to prevent falling. Tie-offs were not provided that would allow workers to exit with safety lines attached.

December 14, 1979

A crusher operator, age 59, was fatally injured when the bridged material he was standing on inside a stone bin collapsed and pulled him into the open chute. He was engulfed by crushed stone. He had 23 years of mining experience with this company; 15 years were as a secondary crusher operator.

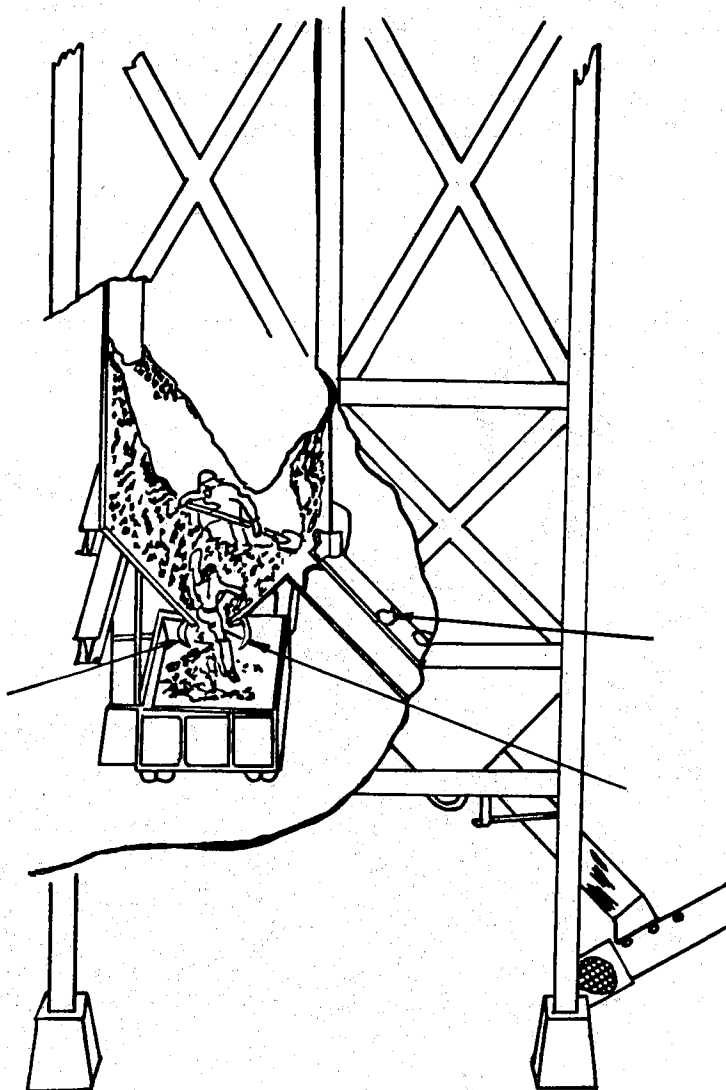
Cause of accident: The direct cause of this accident was the victim entering the stone bin and standing on top of material that was bridged. Contributing cause was failure of the victim to obey company regulations which require using a safety belt and line when bins are entered.



December 14, 1979

A crusher operator, age 59, was fatally injured when the bridged material he was standing on inside a stone bin collapsed and pulled him into the open chute. He was engulfed by crushed stone. He had 23 years of mining experience with this company; 15 years were as a secondary crusher operator.

Cause of accident: The direct cause of this accident was the victim entering the stone bin and standing on top of material that was bridged. Contributing cause was failure of the victim to obey company regulations which require using a safety belt and line when bins are entered.



Report compiled by Shirley Quisenberry,
Safety Specialist, Health and Safety Analysis
Center, Denver, Colorado



HOLMES SAFETY ASSOCIATION MONTHLY SAFETY TOPIC

THE LAST WORD

The first 60 days of the year are now history. The remaining 305 are still a mystery. So continue in safety as you have in the past and the year will be pleasant right up to the last day.

How often have you seen one driver try to bluff out another at an intersection? This "me first" attitude is a way that many drivers get in trouble. Poker players always say that you shouldn't bluff unless you can afford to lose. In traffic you can NEVER afford to lose - so don't bluff.

Wouldn't it be nice if anyone tempted to point a finger would hold out a hand instead?

Some say that accidents are just plain bad luck, but I think if you investigate it enough you will find that someone has been pushing their luck somewhere along the line.

Speaking of accidents - go ahead and take that chance. After all, a fatal accident happens only once in a lifetime.

No two people see things the same. The same facts seen differently are the cause of many an argument. Two laborers were looking at a brick wall when one said: "Can you tell me what keeps the bricks together?"

"The mortar, of course," was the answer.

"Not by a blamed sight," said the other. "That is what keeps them apart."

How often have you seen someone in the car in front of you looking in their rear view mirror to comb their hair? Only a few seconds of inattention at highway speeds can put you right in the middle of an accident.

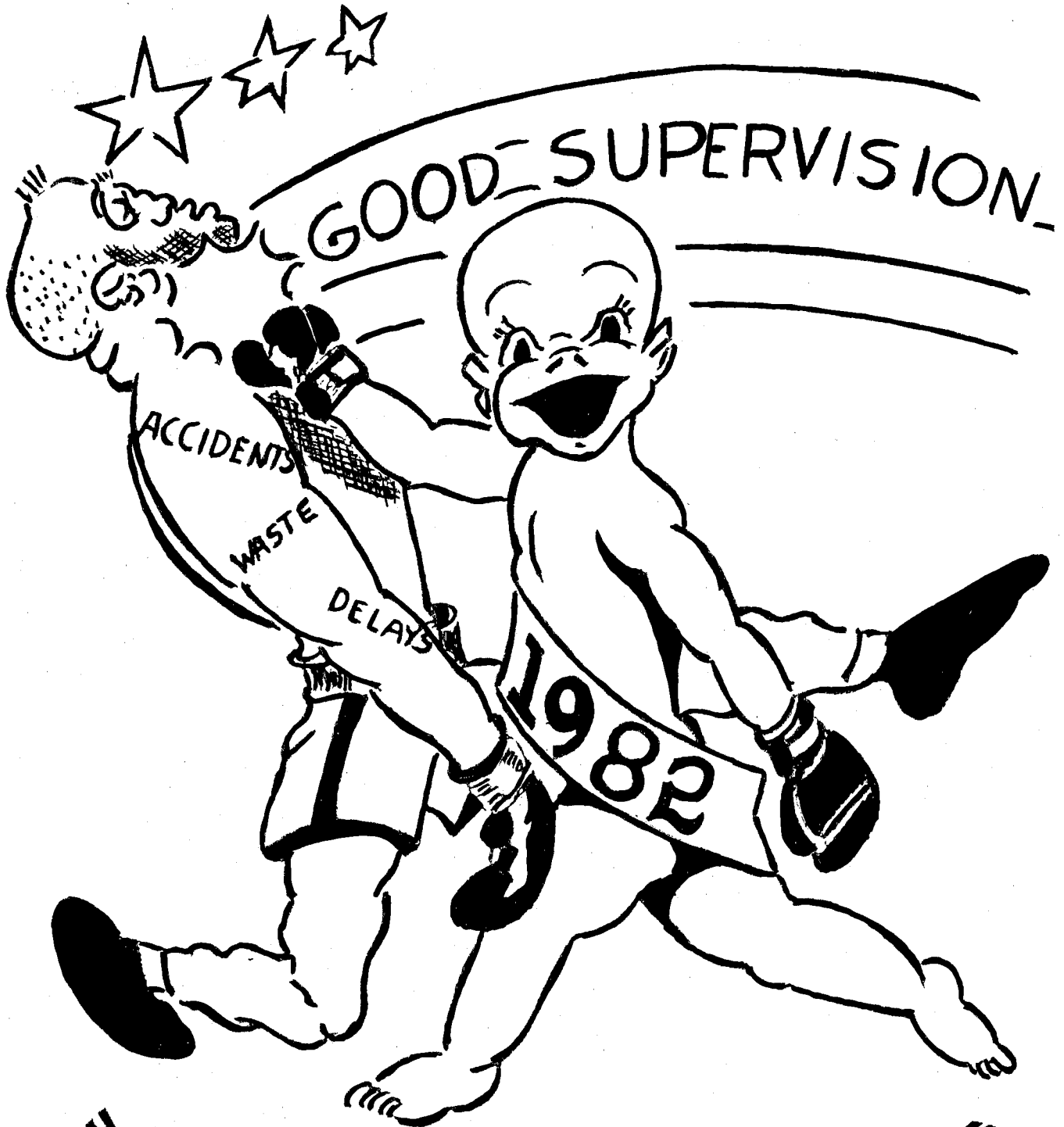
At that point, it won't matter at all about the condition of your hair.

Remember, drive as if your life depended on it because it does.

Until next month, remember, the last thing you want is an injury, so practice safety first.

ATTENTION: We are pleased to announce that Ford B. Ford, Assistant Secretary for MSHA, will be the featured speaker at the dinner meeting of the Pennsylvania Bituminous Council, held at the Rustic Lodge, Indiana, Pennsylvania, at 6:00 p.m., on March 19, 1982. Mr. Ford, recently confirmed as Assistant Secretary grew up in a coal-mining area of Virginia before moving to California to become the first chair of the California Occupational Safety and Health Appeals Board. Further information regarding the meeting can be obtained by contacting John O. Miller, Post Office Box A, Hastings, Pennsylvania, 16646. (814-247-8239)

HOLMES SAFETY ASSOCIATION



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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.)

(Signature)

(Telephone No.)

(Title)

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For uninterrupted delivery, 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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