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The Holmes Safety Association Bulletin contains safety articles on a variety of subjects: fatal accident abstracts, studies, posters, and other health and safety-related topics. This information is provided free of charge and is designed to assist in presentations of groups of mine and plant workers during on-the-job safety meetings. For more information visit the MSHA Home Page at www.msha.gov.

Please Note: The views and conclusions expressed in Bulletin articles are those of the **authors** and should not be interpreted as representing official policy or, in the case of a product, represent endorsement by the **Mine Safety and Health Administration**.

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Keep Us in Circulation--Pass Us Along

omeone's Waitin

Winter Alert - "Someone's Waiting for You at Home"

This is the first Winter Alert of the millennium. We wish to increase the level of awareness of our Nation's miners and focus attention on the natural phenomena which occur during the winter months in coal mines. Passage of a weather front is often accompanied by a change in barometric pressure, which can contribute to methane migration into the active sections and, when combined with the drier underground conditions, increases the risk of an explosion. Nearly all of the coal-producing states have experienced coal mine explosions. Fortunately, the incidence of mine explosions has decreased dramatically. However, we must be mindful that the ingredients for disaster are ever present in our coal mines.

The winter season will again test your vigilance in maintaining safe explosion-free coal mines.

The Winter Alert Program will once again emphasize the heightened dangers associated with the effects of winter weather. This year's theme, "WINTER ALERT - SOMEONE'S WAITING FOR YOU AT HOME" will hopefully encourage everyone to work with extra caution.

As part of this year's Winter Alert Campaign, MSHA is distributing safety-message signs to all underground coal mines and hard-hat stickers to all underground coal miners.

We request that the mines prominently display these signs in each active underground section as a constant reminder of the increased hazards.

During the program, MSHA inspectors will continue to stress the four lines of defense against winter mine explosions: ventilation, mine examinations, controlling ignition

ventilation, mine examinations, controlling ignition sources and rock dusting.

Mine explosions can be prevented through the combined efforts of the coal mining community. Working together, the 2000-2001 Winter Alert season can be tragedy free.

MSHA Creates a Coal Waste Dams and Impoundments Webpage Site

The U.S. Department of Labor's Mine Safety and Health Administration (MSHA) has announced it will conduct intensive inspections of some 600 coal mine waste impoundment dams throughout Appalachia in the wake of an impoundment failure at the Martin County Coal Corporation in southeastern Kentucky.

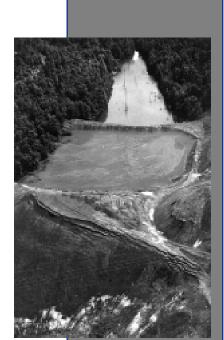
In the early morning hours of Oct. 11, it was discovered that an inrush of water and slurry from an impoundment had entered the underground workings of an abandoned mine of the Martin County Coal Corporation near Pilgrim, Ky.

Reports indicated more than 250 million gallons of sludgewater containing coal dust and other mine waste-poured into the underground mine, bursting through portals and eventually flowed into tributaries of the Big Sandy River. No one was injured in the incident.

MSHA now has a **toll-free telephone response line** that both miners and other citizens may call if they have questions concerning impoundments in their communities. That number is:

1-800-454-3124

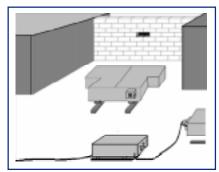
MSHA website: http://www.msha.gov/impoundments/impundmenthp.HTM



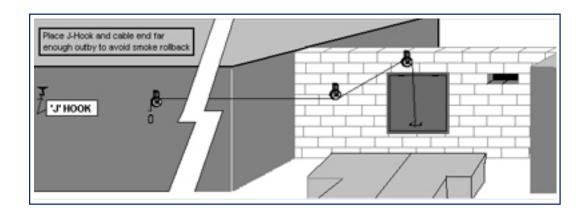
MSHA - Post Accident Investigation Remedies

"Battery Station Ventilation"

The easiest and most common way of venting the battery station to the returns is to create an adequate opening in the return side stopping. This allows the gases created during battery charging to be vented directly into the return. However, in the event that a battery would catch fire, the hole would not be capable of exhausting the smoke created by the fire. This smoke rollback into the entry outby the station can hinder or delay access for fighting the fire. Placing a standard mandoor in the stopping that can be opened when a fire occurs will increase the pull to the return and clear the fresh air side of the fire.



Connecting a cable to the door and extending it to an outby position is an easy, inexpensive, and quick way to open the door remotely. The cable doesn't need to be any larger than an eighth of an inch. The pulleys and cable used to hang the changeroom baskets work very well for this application. Be sure to have a 'J' hook or other means to latch the door open after opening. Also, make sure that the cable and 'J' hook are located far enough outby to avoid smoke rollback. The mandoor should not be used as a regulator for the ventilation of the battery station.



The mining industry is strongly encouraged to consider and adopt this suggestion. MSHA believes that unnecessary injuries and fatalities could be avoided in the future as a result. Estimated cost to implement this remedy: \$30 to \$50 parts and labor

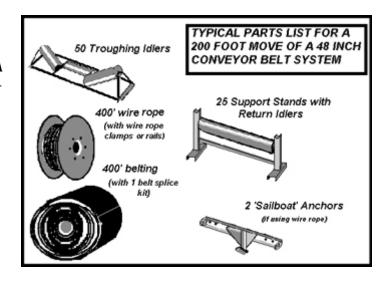
Post Accident Investigation Remedies

"Pre-packaged Belt Move"

Injuries and strains can occur while lifting and loading heavy, unwieldy objects. This is especially true in mines where water, mud, low height, darkness, and other impediments can combine to make any job dangerous. Any means to reduce or eliminate manual lifting and carrying of heavy objects is a remedy worth considering. The pre-packaged belt move is a smart method of lessening the risk of injury. The idea of pre-packaging the materials necessary for the belt move beforehand reduces the labor for both the supply people and the belt installers. This would be worth doing from a purely economic stance. The best part of the pre-packaging is that it reduces the risk of injury, increases efficiency, provides relief from rehandling and reloading the extra parts, dealing with waste, etc... it just makes good common sense.

When soliciting bids from conveyor venders, ask them to deliver their supplies in pre-packaged belt move bundles. It will make it even easier, quicker, and safer for the miners to handle and install the belt move.

The mining industry is strongly encouraged to consider and adopt this suggestion. MSHA believes that unnecessary injuries and fatalities could be avoided in the future as a result. Estimated cost to implement this remedy: No additional costs anticipated.



POST ACCIDENT INVESTIGATION REMEDIES

Tip: Always "dump short" of the edge when a pile has been loaded out below the dump point.

"Dump Shorty"

Many fatal accidents have occurred on truck-built stockpiles when a truck has attempted to dump above an area where the pile has been loaded out.





Where a pile has been loaded out below the dump point, the safe procedure is to "dump short."



A good rule-of-thumb is to dump at least one truck-length back from the edge...



...then push the material over with a track-mounted dozer.

The mining industry is strongly encouraged to consider and adopt this suggestion. MSHA believes that unnecessary injuries and fatalities could be avoided in the future as a result.



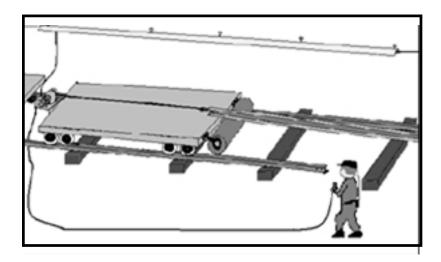
POST ACCIDENT INVESTIGATION REMEDIES

"Railcar/Roller/Risk/Reduction/ Remedy"

Almost every safety department in every industry, mining included, lists back injuries at the top of their accident statistics.

Training directed to proper lifting techniques and the use of back braces have helped bring down the number of injuries, but using a mechanical means of lifting is the best way to reduce them. The most effective way to reduce back injuries is to not put the back at risk. In mining, when a section retreats and pulls up the rails and ties, all

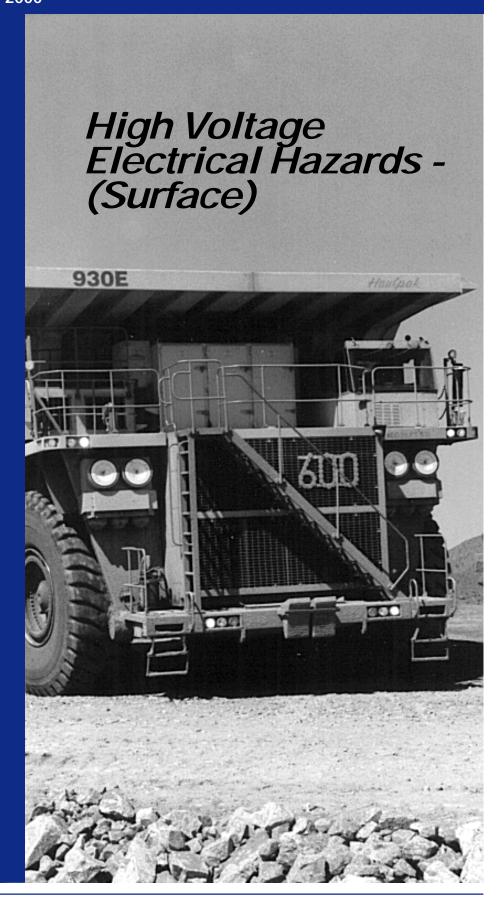
too often, injuries and strains occur while lifting and loading these heavy, unwieldy objects. A remedy to eliminate many of these injuries is to provide a trolley powered winch on one end of the rail car and a roller on the other.



With a little shop work the winch can be fabricated from a bolter or cutter cable reel. The head sheave from an old belt drive makes an excellent roller. The roller should be about one and a half feet in diameter. This eliminates the need for even lifting the rail onto the end of the car. A smaller roller will allow the rail to catch, but the larger diameter roller simply raises the rail up and onto the car. A remote start-stop switch combined with this self loading feature will make it unnecessary to have anyone near the car. This allows miners to be positioned in a safe location in the event that a cable slips or breaks. Once on the car, the rails can be levered into place or stacked by using a slate bar.

This remedy may not be feasible or applicable to your operation, but the concept is valid. Take a look at your operation and use this remedy as a template to determine what you can do to mechanize routine lifting tasks. Safety and your bottom line will benefit. Cost: Using mostly scrounged materials, the total cost should not be more than \$500 including labor. The mining industry is strongly encouraged to consider and adopt this suggestion. MSHA believes that unnecessary injuries and fatalities could be avoided in the future as a result.

November 2000



Many fatalities have occurred due to electrocutions when persons came in contact with energized high voltage circuits. These fatalities were the result of equipment coming in contact with high voltage transmission lines or cables and persons working on or in close proximity of high voltage circuits or handling high voltage cables.

Also, there were accidents that resulted in severe electrical burns. We must realize that every time you receive an electrical shock, even though it is not classified as high voltage, it could be potentially fatal.

Some of the work habits we should pay particular attention to are:

- 1. When moving equipment under energized high voltage lines, that ample clearance is provided. This type of accident is becoming very common and research is being conducted on devices to prevent or warn of this danger.
- 2. When handling high voltage trailing cables to mobile equipment, the circuit should be first deenergized and locked

- out, if possible. Cables requiring to be handled while energized should only be done by persons wearing well maintained protective gloves and insulated hooks.
- 3. High voltage trailing cables should be placed away from haulage ways, etc., where they are protected from damage. A damaged cable can become a shock hazard.
- 4. High voltage circuits should not be broken under load. Breaking the circuit under a heavy load could cause a very heavy and distinct flash that not only could cause damage to equipment, but also subject persons to shock and burn hazards.
- 5. Substations should be carefully examined by a qualified electrician. All frames should be solidly and efficiently grounded. Grounding resistors should be examined for continuity. An open ground resistor would result in no ground fault protection and a faulted piece of equipment could be a source of electrical shock if the circuit remained energized.
 - 6. Lightning arrestors

should be examined to ensure they are properly connected to the arrestor ground.

- 7. Safety insulating mats should be properly installed and maintained where required.
- 8. High voltage gloves and hot sticks should be used when operating pole mounted disconnect switches.
- 9. Before any work is performed on a high voltage circuit, it should be deenergized with visual disconnects and the phase conductors connected to ground.

(See Next Page)

Observation Check List:

- 1. Are there overhead power lines located near prep plants, settling ponds, supply yards, conveyor belts, etc., where overhead cranes might operate?
- 2. Are trucks being serviced, cleaned or polished in the vicinity of overhead power lines?
- 3. Are stockpiles of coal or refuse being constructed in the vicinity of overhead power lines?
- 4. Are roads on mine property in the vicinity of overhead power lines being repaired or modified?
- 5. Are vertical drills operating in the vicinity of overhead power lines?
- 6. Are vertical drills being moved with their masts in the lowered position?
- 7. Do miners know what to do if their equipment comes in contact with an overhead power line?
- 8. Do miners know the fully extended height of their bed, mast, or boom?

What to Do if a Machine Contacts Energized Power Wires

- If a boom, mast, or truck bed accidentally comes into contact with a wire, the operator should swing the boom or drop the bed to get clear. If the wire has been broken and the boom cannot be cleared from it, the operator should stay on the machine and remain calm.
- A crawler crane or drill, if the ground is wet or damp, will be electrically grounded and, when the boom touches a power line, the wire will, in turn, be grounded and the power company circuit breaker will open. Some arcing may occur. After a few seconds, however, the circuit breaker will automatically close and reenergize the wire. Again the circuit breaker may open, and again it will close. Thus the wire may be "dead" at one instant, but live a few seconds later.
- On the other hand, if a machine on rubber tires should become tangled with a "hot" electric wire, the entire machine will be energized, for the rubber tires will insulate the machine from the ground. Hence, the circuit breaker may not open, and the wire and the machine may remain energized.
- Stepping from the machine to the ground is often fatal, for one hand and one foot may be in contact with the machine when the other foot touches the ground. Therefore, the operator should remain on the machine until the emergency crew from the electric company arrives and frees the machine from the live wire.
- If the fuel tank should become ignited, or if for any other reason it is impossible for the operator to remain on the machine, he should jump after making sure that all parts of his body are clear of the machine before his feet touch the ground.

Part 46 Training CD-ROM, Developed Cooperatively Between State and Industry

Written by Bill York-Feirn, Colorado Division of Minerals and Geology, Mine Safety and Training Program

The new 'Part 46 New Miner Training Program' recently won two prestigious national awards and one state award as the best training material developed in the year 2000. The two national awards were presented by Mr. Jeff Duncan, Chief, Educational Policy and Development, U.S. Department of Labor, Mine Safety and Health Administration at the annual National Mine **Instructors Seminar/Training** Materials Applied to Mining (TRAM) Conference held at the Mine Health and Safety Academy in Beckley, West Virginia. The Part 46 CD-ROM program was selected from 20 national entries as the Grand Prize winner and the First Place winner in the state - Metal/ Nonmetal category. In addition, the Colorado Mining Association awarded the Colorado Mine Safety and Training Program (CMSTP) with the 2000 Health and Safety Recognition Award for the development of excellent training materials over the last several years, in particular, for the Part 46 CD-ROM program.

The Part 46 CD-ROM program is a self-paced, interactive training program that assists aggregate industry operators and contractors in complying with the requirements of the newly promulgated federal Part 46 training rule which applies to surface noncoal mines nationwide. The program is packed with important safety information and actual video footage which addresses all required topics in the Part 46 rule.

The original idea, developed by Dan McClain of the CMSTP, was brought to the industry through the Colorado Rock **Products Association. The** program was then funded and developed through a unique partnership between the **Colorado Division of Minerals** and Geology - CMSTP, the **Colorado Rock Products** Association and the Colorado **Division of Training Services at** the HEAT (Higher Education and Advanced Technology) Center. The intent of the program was to provide an affordable, interactive and exciting training tool to the affected industry before the enforcement date of October 2, 2000, to assist operators and

contractors in their compliance efforts. Work began in July, 1999, and filming began on September 29, 1999, at 20 surface mine sites in Colorado. The English version was released on June 26, 2000, and the Spanish version began distribution on September 8, 2000.

The Part 46 New Miner Training CD-ROM Program is currently for sale at the following rates: \$100 for members of the Colorado Rock Products Association/Colorado Ready Mix Concrete Association, \$250 for other mines in Colorado, and \$400 for mines located outside Colorado.

To order, contact the **Colorado Rock Products Association** at **1-800-877-0785**.

For more information, please contact either Bill York-Feirn at (303) 866-3650 or bill.york-feirn@state.co.us, or Dan McClain at (303) 866-3790 or

daniel.mcclain@state.co.us.

A Miner's Story

Article scanned from The Independent, 1902. Created by Patrick J. Hall

This article comes from an American miner, resident all his life in the mining district of Pennsylvania. He has worked in the mines from his boyhood. His comparatively brief education in the public schools of the Commonwealth has been supplemented, like that of many other Americans in his walk of life, by a close reading of the daily papers, and particularly those portions of the daily papers which bore directly upon his own interests. The facts which he gives about himself are true; the opinions he expresses are those which he, individually, has formed. By temperament he may be said to be conservative rather than radical; by habit he has always been a law-abiding citizen. He is, in effect, the typical American who is employed in the anthracite coal regions in the State of Pennsylvania -EDITOR.

I am thirty-five years old, married; the father of four children, and have lived in the coal region all my life. Twenty-three of these years have been spent working in and around the mines. My father was a miner. He died ten years ago from "miners' asthma."

Three of my brothers are miners; none of us had any opportunities to acquire an education. We were sent to school (such a school as there was in those days) until we were about twelve years of age, and then we were put into the screen room of a breaker to pick slate. From there we went inside the mines as driver boys. As we grew stronger we were taken on as laborers, where we served until able to call ourselves miners. We were given work in the breasts and gangways. There were five of us boys. One lies in the cemeteryfifty tons of top rock dropped on him. He was killed three weeks after he got his job as a miner- a month before he was to be married.

In the fifteen years I have worked as a miner I have earned the average rate of wages any of us coal heavers get. Today I am little better off than when I started to do for myself. I have \$100 on hand; I am not in debt; I hope to be able to weather the strike without going hungry.

I am only one of the hundreds you see on the street every day. The muscles on my arms are no harder, the callous on my palms no deeper than my neighbors' whose entire life has been spent in the coal region. By years I am only thirty-five. But look at the marks on my body; look at the lines of worriment on my forehead; see the gray hairs on my head and in my mustache; take my general appearance. and you'll think I'm ten years older.

You need not wonder why. Day in and day out, from Monday morning to Saturday evening, between the rising and the setting of the sun, I am in the underground workings of the coal mines. From the seams water trickles into the ditches along the gangways; if not water, it is the gas which hurls us to eternity and the props and timbers to a chaos.

Our daily life is not a pleasant one. When we put on our oil soaked suit in the morning we can't guess all the dangers which threaten our lives. We walk sometimes miles to the place, to the man way or traveling way, or to the mouth of the shaft on top of the slope. And then we enter the darkened chambers of the mines. On our right and on our left we see the logs that keep up the top and support the sides which may crush us into shapeless masses, as they have done to many of our comrades.

We get old quickly. Powder, smoke, after-damp, bad air- all combine to bring furrows to our faces and asthma to our lungs.

I did not strike because I wanted to; I struck because I had to. A miner - the same as any other workman - must earn fair living wages, or he can't live. And it is not how much you get that counts. It is how much what you get will buy. I

(See Next Page)

have gone through it all, and I think my case is a good sample.

I was married in 1890, when I was 23 years old - quite a bit above the age when we miner boys get into double hardness. The woman I married is like myself. She was born beneath the shadow of a dirt bank; her chances for school weren't any better than mine; but she did have to learn how to keep house on a certain amount of money. After we paid the preacher for tying the knot we had just \$185 in cash, good health and the good wishes of many friends to start us off.

Our cash was exhausted in buying furniture for housekeeping. In 1890 work was not so plentiful, and by the time our first baby came there was room for much doubt as to how we would pull out. Low wages, and not much over half time in those years, made us hustle. In 1890-91, from June to May, I earned \$368.72. That represented eleven months' work, or an average of \$33.52 per month. Our rent was \$10 per month; store not less than \$20. And then I had my oil suits and gum boots to pay for. The result was that after the first year and a half of our married life we were in debt. Not much, of course, and not as much as many of my neighbors, men of larger families, and some who made less money, or in whose case there had been sickness or accident or death. These are

all things which a miner must provide for.

I have had fairly good work since was married. I made the average of what we contract miners are paid; but, as I said before, I am not much better off than when I started.

In 1896 my wife was sick eleven weeks. The doctor came to my house almost every day. He charged me \$20 for his services. There was medicine to buy. I paid the drug store \$18 in that time. Her mother nursed her, and we kept a girl in the kitchen at \$1.50 a week, which cost me \$15 for ten weeks, besides the additional living expenses.

In 1897, just a year afterward, I had a severer trial. And mind, in those years, we were only working about half time. But in the fall of that year one of my brothers struck a gas feeder. There was a terrible explosion. He was hurled downward in the breast and covered with the rush of coal and rock. I was working only three breasts away from him and for a moment was unable to realize what had occurred. Myself and a hundred others were soon at work, however, and in a short while we found him, horribly burned over his whole body, his laborer dead alongside of him.

He was my brother. He was single and had been boarding. He had no home of his own.

I didn't want him taken to the hospital, so I directed the driver of the ambulance to take him to my house. Besides being burned, his right arm and left leg were broken, and he was hurt internally. The doctors there were two at the house when we got there - said he would die. But he didn't. He is living and a miner today. But he lay in bed just fourteen weeks, and was unable to work for seven weeks after he got out of bed. He had no money when he was hurt except the amount represented by his pay. All of the expenses for doctors, medicine, extra help and his living were borne by me, except \$25, which another brother gave me. The last one had none to give. Poor work, low wages and a sickly woman for a wife had kept him scratching for his own family.

It is nonsense today I was not compelled to keep him, that I could have sent him to a hospital or the almshouse. We are American citizens and we don't go to hospitals and poor houses.

Let us look at things as they are today, or as they were before this strike commenced.

My last pay envelope shows my wages, after my laborer, powder, oil and other expenses were taken off, were \$29.47; that was my earnings for two weeks, and that was extra good. The laborer for the same time got some \$21. His wages are a trifle over \$10 a week for six full days. Before the strike of 1900 he was paid in this region \$1.70 per day, or \$10.20 a week. If the ten percent raise

had been given, as we expected, his wages would be \$1.87 per day, or \$11.22 per week, or an increase of \$1.02 per week. But we all know that under the present system he doesn't get any eleven dollars.

Well, as I said, my wages were \$29.47 for the two weeks, or at the rate of \$58.94 per month. My rent is \$10.50 per month. My coal costs me almost \$4 per month. We burn a little over a ton a month on an average and it costs us over \$3 per ton. Light does not cost so much; we use coal oil altogether.

When it comes down to groceries is where you get hit the hardest. Everybody knows the cost of living has been extremely high all winter. Butter has been 32, 36 and 38 cents a pound; eggs as high as 32 cents a dozen; ham, 12 and 16 cents a pound, potatoes away up to a dollar, and cabbage not less than a cent a pound. Fresh meat need not be counted. Flour and sugar did not advance, but they were about the only staples that didn't. Anyhow, my store bill for those two weeks was \$11. That makes \$22 per month. The butcher gets \$6 per month. Add them all, and it costs me, just to live, \$42.50. That leaves me \$17 per month to keep my family in clothes, to pay my church dues and to keep the industrial insurance going. My insurance alone costs me 55 cents a week, or \$2.20 a month.

The coal president never allows his stable boss to cut the amount of fodder allotted to his mules. He insists on so many quarts of oats and corn to the meal and so much hay in the evening. The mule must be fed; the miner may be, if he works hard enough and earns money to buy the grub.

Company stores are of the time that has been. Their existence ended two years ago. But we've got a system growing up that threatens to be just as bad. Let me explain. Over a year ago I was given a breast to drive at one of our mines and was glad to get it. My wife took her cash and went around the different places to buy. When I went to the office for my first pay the "super" met me and asked me if I didn't know his wife's brother George kept a store. I answered, "Yes," and wanted to know what that had to do with it.

"Nothing, only I thought I'd call your attention to it," he answered.

No more was said then. But the next day I got a quiet tip that my breast was to be abandoned. This set me thinking. I went to the boss and, after a few words, told him my wife had found brother-in-law George's store and that she liked it much better than where she had bought before. I told him the other store didn't sell the right kind of silk waists, and their patent leather shoes were away back. Brother-in-law

George had the right kind of stuff and, of course, we were willing to pay a few cents more to get just what we wanted.

That was sarcastic, but it's the cash that has the influence. I have had work at that colliery ever since. I know my living costs me from 10 to 15 per cent extra. But I kept my job, which meant a good deal.

Now you must take into consideration that I am a contract miner and that my earnings are more than the wages of three-fourths of the other fellows at the same colliery. It is not that I am a favorite with the boss. I just struck a good breast. Maybe next month my wages would be from two to six or seven dollars less.

In the days of Pardee, Coxe, Fagley, Fulton, Dewees, Paterson, Riley, Repplier, Graeber and a hundred others, men were better paid than they have ever been since the centralization ideas of the late Franklin B. Gowen became fixed institutions in the anthracite counties. It may be true that in the days of the individual operation the cost per ton of mining coal was less than it is today. But it is not right that the entire increase in the cost of mining should be charged to the miner. That is what is being done, if you count the reductions made in wages.

We miners do not participate in the high prices of coal. The operators try to prove otherwise by juggling with

figures but their proving has struck a fault, and the drill shows no coal in that section. One-half of the price paid for a ton of coal in New York or Philadelphia goes into the profit pocket of the mine owner, either as a carrier or miner.

We all know that the price of coal has advanced in the past twenty years. We also know that wages are less, that the cost of living is higher. I remember the time when I was a wee lad, my father used to get his coal for \$1 per ton. Now I pay \$3. In those days we lads used to go to the dirt banks and pick a load of coal, and it cost our parents only a half a dollar to get it hauled home. We dare not do that now. Then we did not need gum boots, safety lamps or any such things as that; and for all of them we must now pay out of wages that have been reduced.

Our condition can be no worse; it might and must be better. The luxuries of the rich we do not ask; we do want butter for our bread and meat for our soup. We do not want silk and laces for our wives and daughters. But we want to earn enough to buy them a clean calico once in a while. Our boys are not expecting automobiles and membership cards in clubs of every city, but they want their fathers to earn enough to keep them at school until they have a reasonably fair education.

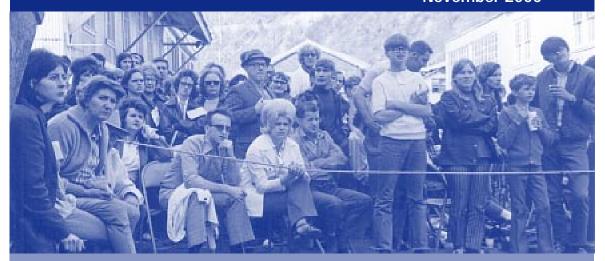
-Pennsylvania

This story taken from web site; http://www.history.ohio-state.edu/projects/coal/MinersStory/MinersStory.htm created by Patrick J. Hall,



Carbon monoxide, a potentially deadly gas devoid of color, taste or smell, can form underground during a mine fire or after a mine explosion. Today's coal miners must rely on carbon monoxide detectors and monitors to recognize its presence underground. However, before the availability of modern detection devices, miners turned to Mother Nature for assistance. Canaries — and sometimes mice — were used to alert miners to the presence of the poisonous gas. Following a mine fire or explosion, mine rescuers would descend into the mine carrying a canary in a small wooden or metal cage. Any sign of distress from the canary was a clear signal that the conditions underground were unsafe, prompting a hasty return to the surface. Miners who survive the initial effects of a mine fire or explosion may experience carbon monoxide asphyxia.

November 2000



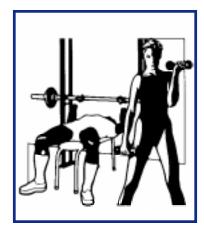
Waiting

"As I lay upon my bed trying vainly to raise my head thinking about my life before feeling numb to my core. Hunting, fishing, camping too all are things I used to do. Crying wives and lonely children saddened hearts of family members. These things I live with day to day laughing, crying, children at play. Will I wake upon the Morrow? Complete with all the pain and sorrow. All my life before my eyes now upon the ground does lie. I was safe, or so I thought forgetting all that I was taught. Just a second is all it took only a minute, but not by the book. A job completed much too hasty ignoring others and my safety. Money is my bottom line, now I'd give up all of mine to walk unaided once again to laugh and cry with family and friends.

Poem written by LaDell Smith, Instructor with the Oklahoma Miner Training Institute (OMTI)

OLMES SAFETY ASSOCIATION 19

Wellness



EXERCISE ADHERENCE

Developing an exercise plan is only the first step on the road to fitness. Staying with the program, commonly referred to as "exercise adherence," continues to be a major problem for many people. Studies have shown that the likelihood of an individual maintaining an exercise program for more than a year is less than 50 percent. Some experts feel that even these figures are overly optimistic.

Many of the common reasons people give for exercising—fear of illness or disease, increased health benefits, desire for control, and personal vanity—have proven to be poor motivators for long-term exercise adherence. It appears that the real answer lies in whether the exercise is enjoyable, rather than painful or unpleasant. That's why some exercise equipment manufacturers add electronic panels to

their machines — the computer graphics and digital readouts provide feedback and entertainment during the workout.

The key to long-term exercise adherence is matching up your personality and interests with the exercise program. Thus, the success (or failure) of your fitness plan will probably depend on the nature of program you implement. When developing your fitness program, understand your own personal needs and preferences, and make decisions accordingly. In this way, you will ensure that the program will be both enjoyable and maintainable.

Some important exercise factors can be categorized under three basic phases of your fitness program:

- **♯** Planning your workouts
- **★** Beginning your exercise routine
- **★** Maintaining your exercise program

PLANNING YOUR WORKOUTS

When planning your fitness program, it's important to think through your reasons and strategies for exercising. Some considerations are described below.

Motivation

What are your reasons for getting in shape? Is it your health, your job, your appearance, your stress level? You

will be more successful if you clearly define why you want to start exercising. Your job should provide you with one good reason — you need to be physically fit in order to safely and effectively perform the activities and tasks required by your profession. Others' lives, and your own, may depend on your level of physical conditioning.

Type of Exercise

What type of exercise appeals to you? Do you like general recreational activities, or does exercise need to be competitive for you to enjoy it? Both types of exercise can be included in a fitness program. Look for exercise activities that meet your needs. Some questions you might ask yourself include:

- ✓ Is the activity fun?
- ✓ Do I like other activities better?
- ✓ Is it convenient for me to workout?
- ✓ How much does it cost?
- ✓ Does the program pro vide some variety?
- ✓ Am I in good enough condition to participate?

Workout Conditions

Your exercise routine should fit your personality: social preferences, how you feel at different times of the day, choice of surroundings, and so forth. For example, some people prefer to exercise with friends, and others don't. In order to have a successful program, you may need to recruit a partner, or nicely tell

someone you'd rather work out alone.

Are you an early morning, afternoon, or evening exerciser? Even though your personal or professional schedule may force you to exercise at certain times, it's best to try to exercise when the workout feels best. Forcing your body to go against its natural "time table" might be enough to keep you from sticking with the program.

Do you prefer to exercise at home, in a fitness facility, at work? Would you rather exercise indoors or outdoors? Many well-intentioned exercisers find that home settings can be distracting or uninspiring; an estimated 70 percent of home exercise equipment is not used after the first 30 days. You will need to decide where you exercise best.

BEGINNING YOUR EXERCISE ROUTINE

For many people, the early stages of the exercise program are the hardest. After some initial excitement, personal doubts or fears may creep in. Exercise might feel unpleasant, and progress may come slowly. Some suggestions for getting through this difficult period until exercise becomes easier and more enjoyable follow.

Start gradually. It takes a long time to get out of shape, and it will take a while to get fit again. Set realistic goals. If

you push too hard, you could injure yourself, a sure program "killer."

Listen to your body. A philosophy of "no pain, no gain" is not only unnecessary, it can be dangerous. Rest if you need to, or reduce your activities when you become sore or lose energy.

Keep a record of your activities. A workout log helps you analyze your exercise program, and provides an incentive by reminding you of your commitment. This process is especially important when you experience "plateaus" in your progress.

Build a support network. Peer pressure can be a strong incentive (or disincentive) at this stage. Associate with people who support your effort, and avoid "naysayers." Don't make the process harder than it has to be.

Reward yourself for accomplishments. The benefits of exercise may take a while to realize, so plan some rewards to reinforce your efforts in the beginning. Pick something specific and appealing.

Avoid negative self-talk. How we "think about things" strongly influences our behavior. Try to emphasize positive statements about fitness and exercise. In particular, analyze your excuses and set up plans to deal with them.

Use prompts and cues. Behavior is often influenced by the situation or the environment. Identify and foster signals that promote your fitness program, e.g., posters in the exercise room, a calendar with workout days marked, readily available exercise equipment, etc.

MAINTAINING YOUR EXER-CISE PROGRAM

After you have been working out for a while, you will begin to experience some of the benefits of exercise. You will feel better, look better, and have more energy. You may lose weight, or notice an improvement in your performance at work. You will also begin to enjoy your workouts more. At this time, you need to work on making exercise a normal part of your daily routine.

Many of the earlier suggestions for promoting exercise adherence apply at this stage, too. If you have been monitoring your progress since the program began, you will know which methods work for you. But everyone encounters obstacles from time to time. Most problems can be easily handled if you actively address them. Some long-term strategies follow.

Goal Setting

After initial successes, improvements in fitness may come slowly or in stages.

(See Next Page)

Establishing long-term goals can help by providing personal incentives and exercise "benchmarks" for evaluating progress over time. Monitoring gains in fitness (e.g., changes in length of workout, resting heart rate, increases in strength) can also give you a psychological "boost." Furthermore, goal setting helps you recognize when you have reached a fitness level that's satisfactory to you. At this time, the workout goal changes from incremental gains in fitness to long-term maintenance.

Overtraining

Exercising too hard can reduce the pleasure of your workout and cause unnecessary discomfort. Research also shows that overtrained people have lower levels of glutamine, an amino acid that fuels the immune system. The resulting physical and psychological symptoms (see box on next page) can interfere with your exercise routine and cause you to quit the program.

If you think you may be experiencing the "burnout" caused by overtraining, it's time to step back a little. Take a day off or reduce the intensity of your workouts. Remember, situations in life change; you may need to modify your routine when other priorities (job, family, health, etc.) take precedence. Be especially careful when restarting your program after a break due to

illness, injury, vacation, personal situations, and so forth.

BURNOUT SYMPTOMS

According to the American Running and Fitness Association, mood changes and lingering general fatigue are the first signs that you are training too hard. Other symptoms include:

Signs in Your Training

- * No desire to train
- * Cutting sessions short
- * Performance going down
- ***** Unusual muscle soreness
- * Recovery taking longer
- * Fatigue lingering during workout

Signs in Your Life

- * Increased tension, anger, irritability
- * No interest in enjoyable activities
- * Changes in sleep patterns
- * Increased thirst

Signs in Your Health

- * Increased infections, colds. illnesses
- * Inexplicable weight changes
- * Constipation or diarrhea
- * Elevated morning pulse
- * Cuts and scars taking longer to heal

Enjoying Yourself

Your goal is to establish an exercise program that you can maintain for the rest of your life. That won't happen unless your workouts are enjoyable

and effective. To make sure, continue to monitor your reactions to the exercise program, and be open to improvements. Don't get stuck in a rut; try different exercises and new exercise patterns.

Also, be reasonable in your expectations. The purpose of the program is to feel good and be fit, not necessarily to win the New York City Marathon. Accept the fact that you will have occasional "off days" when exercise doesn't feel good and performance declines. Make a commitment to working through minor problems and staying with your program. The results may well be a lifetime of fitness and health!

November 2000

The **Cornish** Miner

The Cornish migration to Grass Valley began in 1849 with the discovery of gold. However, most of the Cornish population arrived during the 1870's. The miners from Cornwall, in the British Isles, were famous for their success as tin miners. The Cornish were not interested in placer mining and were very proud of their skills as hardrock miners.

When the Cornish people were hired at a mine they would ask their employer if he had a job for their "Cousin Jack." The term Cousin Jack and Jenny referred to a Cornish miner's relatives. They wanted to bring their family members to the United States. At one time, three-fourths of the population of Grass Valley was Cornish.

The Cornish men were considered to be the best lode miners in the world. They brought their special skills and knowledge to the hardrock mines. The Cornish pumps allowed miners to remove excess water from inside the mines. They worked in the local hardrock mines twenty-four hours a day. Each time Cornish miners left for work they carried their lunch in round



metal buckets that were divided into three sections. They liked to carry tea in the bottom section, a pasty (meat pie) in the middle section, and a dessert in the top section. Here is a list of a few pies they liked: Fish pie, Herby Pie, Lamby Pie, Piggy Pie, and Muggety Pie.

After a hard day of work, Cornish miners enjoyed watching their favorite sport of wrestling. The wrestling matches took place near the Narrow Gauge Railroad Depot in Grass Valley. They also enjoyed music and often sang their native traditional songs. In 1853 the Cornish people of Grass Valley started the Cornish Carol Choir.

There were only men and boys in the choir. Every year at Christmastime they went into the mine and sang their traditional carols. However, women were not allowed inside the mine because the Cornish were very superstitious. In 1940 the choir sang on a radio

broadcast. They sang while underground at the 2,000 foot level, in the Idaho Maryland Mine.

Since that time, the choir has continued singing only traditional Cornish Carols.

Today, the choir is directed by Eleanor Kenitzer at the **Methodist Church in Grass** Valley.

If you visit the area during the Christmas season you will see the Cornish Choir wearing traditional costumes at the Cornish Christmas celebration in the streets of Grass Valley.★



Cornish Recipe

November 2000



Miner's Lunch Bucket Recipe for your appetite

Cornish Pastry

The Pastry for the Crust (4-5 pastries)

- 3 cups all-purpose unbleached flour
- 1 teaspoon salt
- 1 cup (minus one tablespoon) solid vegetable shortening (Crisco)
- 3 tablespoons cold water

Work the shortening into the flour and salt with fingertips. Gradually add water gently mixing. Form the dough into a ball and divide in four (for a 12 inch pastry) or five for an 8 inch one) pieces. Gently roll from the middle on a lightly floured surface to the size desired. Trim the edges so that they are not scraggly. In the center of each circle, leaving a three-quarter inch border, layer the following in this order:

- one half to three-quarter cup peeled, finely sliced potato
- one quarter to one half cup yellow turnip (rutabaga) one half cup flank or well trimmed round steak cut in one inch strips
- **■** two tablespoons finely sliced yellow onion
- one tablespoon chopped fresh parsley (optional), salt and pepper to taste

The Hard Part

Moisten the edges of pastry and lift two sides to the top and pinch together. Using one hand to roll the pinched edges, use the other hand to twist and tuck the roll into a rope-like "Cornish Crimp." Cut off any excess dough from the ends making sure the cut edges are sealed. Do not pierce pastry! Place the assembled pastries on an ungreased baking sheet, place in a preheated 425 degree Fahrenheit oven and bake for 10 minutes. Reduce the oven temperature to 375 degrees and continue to bake for 45 - 50 minutes or until golden brown.

Remove from oven and immediately cut a tiny one-fourth inch triangle on top of the crust. Using a funnel or baster, drop one teaspoon of very hot water into the hole. Cover with a clean towel (no foil, plastic or paper!) and allow to rest at least ten minutes before serving.

Recipe from the Website Pasties and other Cornish Connections; http://pwp.starnethinc.com/jkcurto/pasties



Mining Our History

An Overview of Disaster Anniversaries

by Melody Bragg

112 Years Ago

Explosives Kettle Creek Mine Clinton County, PA

November 3, 1888

The drill post gave way and fell on a supply of dynamite and caps that had just been brought into the mine. The explosion was propagated by coal dust throughout most of the mine and up the airshaft. Five of the victims working in the vicinity of the dynamite explosion were killed by violence. Twelve others died from suffocation and "afterdamp".

Explosion Shaft Number Two Frontenac. KS

November 9, 1888

Forty miners lost their lives when a keg of powder exploded and ignited gas and dust in this mine.

93 Years Ago Mine Fire

Fremont Gold Drytown, CA

November 30, 1907

A fire that occurred in this mine resulted in the death of 11 miners. They were lowered onto the shaft after the noon hour, but no one was aware of the fire. The skip jammed in the shaft, and only 2 of the 13 men in the skip escaped.

90 Years Ago

Explosion Victor American No. 3 Delagua, CO

November 8, 1910

Early in the afternoon, a fire occurred on the inby side of a door in a crosscut between a main entry and aircourse. Officials entered the mine to fight the fire and a motor was sent outside to get hose. An explosion occurred before the motor could return. About 121 men were in the mine: of those 28 came out through the connecting No. 2 mine, 4 were rescued alive from behind a canvas barricade by helmet men, and 14 men who had bratticed themselves off came out the next day. A total of 79 miners lost their lives, including three who were on the outside and were hit by flying rocks and timbers.

89 Years Ago

Explosion Adrian Mine Punxsutawney, PA

November 9, 1911

Gas and dust in this mine were ignited by an arc of a trolley wire caused by a fall on an entry. Two of the 17 men who had reached the face areas were killed by violence and 6 others in a section of the mine 3,000 feet away from the blast died from inhalation of afterdamp.

89 Years Ago

Explosion Bottom Creek Mine Vivian, WV

November 18, 1911

At 11:00 a.m., an explosion resulted in the death of 18 men. Seven others were rescued, 4 badly burned and 3 uninjured. The open lights of a survey party entering an abandoned room ignited a body of gas. Although the mine was gassy, the miners used lard lamps. The abandoned section was not inspected or ventilated.

Words to think about ...

Our greatest glory consists not in never falling, but in rising every time we fall. Confucious

There are two lasting bequests we can give our children: one is roots. The other is wings. Hodding Carter, Jr.

Obstacles are those frightful things you see when you take your eyes off your goal. Henry Ford.

Success usually comes to those who are too busy to be looking for it. Henry David Thoreau

Experience is simply the name we give to our mistakes. Oscar Wilde

Always do right - this will gratify some and astonish others. Mark Twain

NOTICE: We welcome any materials that you submit to the Holmes Safety Association Bulletin. For more information visit the MSHA Home Page at www.msha.gov. If you have any color and black/white photographs that you feel are suitable for use on the front cover of the Bulletin, please submit them to the editor. We cannot guarantee that they will be published, but if they are, we will list the contributor(s). Please let us know what you would like to see more of, or less of, in the **Bulletin.**

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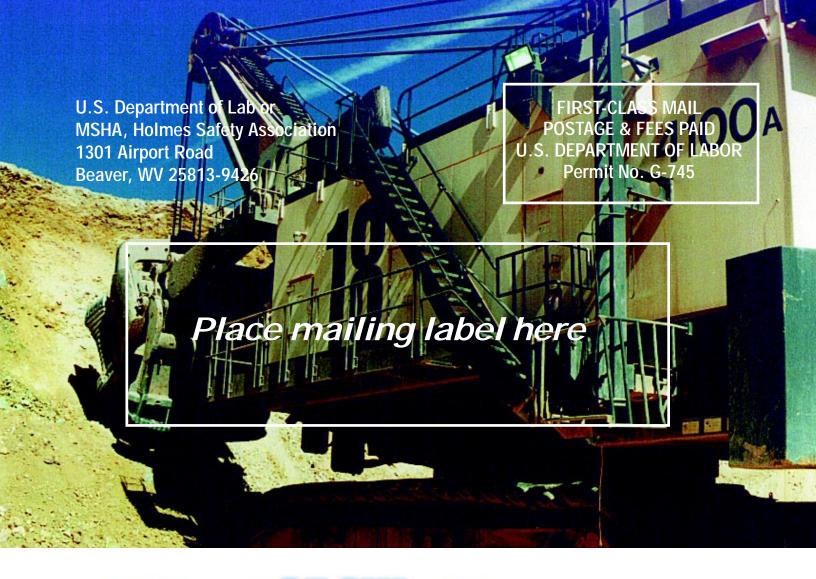
Please address any comments to: Donald Starr Holmes Safety Association Bulletin MSHA-US DOL, National Mine Health and Safety Academy 1301 Airport Road Beaver, WV 25813-9426 Please call us at 304/256-3283 or Fax us at 304/256-3524 **Reminder:** The District Council Safety Competition for 2000 is underway - please remember that if you are participating this year, you need to mail your quarterly report to:

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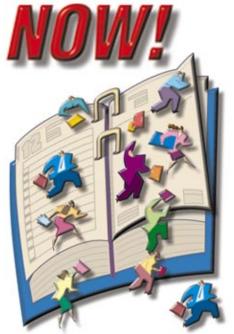
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Check your schedule

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