University of Arizona
Bulletin

State Safety News
April, 1917

Entered as second class matter November 23, 1915, at the postoffice at Tucson, Arizona, under the Act of August 24, 1912. Issued weekly, September to May.

PUBLISHED BY THE
University of Arizona
Bureau of Mines
CHARLES F. WILLIS, Director
TUCSON, ARIZONA
1916-17
J. OGDEN ARMOUR ON ENTHUSIASM

Enthusiasm is the subject taken by J. Ogden Armour this month in his discussion of topics vital to the welfare and progress of his employees. Mr. Armour is the author of many helpful articles which appear in the Armour magazine, a monthly publication for the employees of the firm. This month’s article contains sound advice and should give much food for thought to the thousands of men and women in the employ of the company.

The article follows:

"Enthusiasm is the dynamics of your personality. Without it, whatever abilities you may possess lie dormant; and it is safe to say that nearly every man has more latent power than he ever learns to use. You may have knowledge, sound judgment, good reasoning faculties; but no one—not even yourself—will know it, until you discover how to put your heart into thought and action.

"A wonderful thing is this quality which we call enthusiasm. It is too often underrated as so much surplus and useless display of feeling, lacking in real substantiality. This is an enormous mistake. You can't go wrong in applying all the genuine enthusiasm that you can stir up within you; for it is the power that moves the world. There is nothing comparable to it, in the things which it can accomplish.

"We can cut through the hardest rocks with a diamond drill and melt steel rails with a flame. We can tunnel through mountains and make our way through any sort of physical obstruction. We can checkmate and divert the very laws of nature, by our science.

But there is no power in the world that can cut through another man's mental opposition, except persuasion. And persuasion is reason plus enthusiasm, with the emphasis on enthusiasm.

"Enthusiasm is the art of high persuasion.

"And did you ever stop to think that your progress is commensurate with your ability to move the minds of other people? If you are a salesman this is preeminently so. Even if you are a clerk, it is the zest which you put into your work that enkindles an appreciation in the mind of your employer.

"You have a good idea—don't think that other people will recog-
nize it at once. Columbus had a good idea, but he didn’t get ‘across’ with it without much of this high persuasion.

"If you would like to be a power among men, cultivate enthusiasm. People will like you better for it; you will escape the dull routine of a mechanical existence and you will make headway wherever you are. It cannot be otherwise, for this is the law of human life. Put your soul into your work and not only will you find it pleasant every hour of the day, but people will believe in you just as they believe in electricity when they get into touch with a dynamo.

"And remember this—there is no secret about this 'gift' of enthusiasm. It is the sure reward of deep, honest thought and hard, persistent labor.

"J. Ogden Armour."

Teach the new man how to avoid accidents.
He may have a wife and family who love him.

HEALTH INSURANCE

LEGISLATION ADOPTED IN COUNTRIES OF OLD WORLD BEING DISCUSSED FOR AMERICA

Health insurance for wage earners will soon become a matter for American legislation as it is now in Canada and in several countries of the Old World. Six European countries have adopted compulsory health insurance already and so successfully has the measure worked benefits to the people that every civilized industrial country in the Old World, with a few exceptions, is now confronted with this new type of social legislation.

Among the benefits derived from this system of health insurance has been noticed a check upon the increase of degenerative diseases among wage earners of middle life. Health insurance brings medical care within the reach of large numbers who are unable to afford this luxury on the present basis of payment. Medical care is paid for in advance on an insurance basis, calling for only small weekly contributions. Such conditions encourage wage earners to seek medical advice and treatment when suspicious symptoms occur, and do not defer till treatment and cure are not to be had.

Health insurance has universally proved a promising weapon with which to fight the premature diseases of adult life.

Acquire the safety habit. It is a habit that will never injure you.
WHAT TO DO AT ONCE WHEN A FELLOW MINER IS HURT

Be calm and remain so.
If he is under a fall and you can not move him, go for help.
Send for the boss; send for the First Aid team and First Aid supplies; send for the stretcher; see that the doctor is called.
Take charge and give orders until the boss comes.
Find where the man is hurt before trying to move him. If you believe that a bone is broken or there is a wound or that hemorrhage has started, remove the clothing over the part injured to make your examination.
Don't try to pull off clothing; cut or rip clothes if they must be taken off.
If his back is hurt, don't move him until you have help or the doctor comes.
Always place the injured man on his back, with his head lower than the rest of his body (unless he is bleeding freely about the head); open his collar and loosen his belt.
Always look for bleeding, and if the blood is bright red and coming in spurts, try to stop it at once.
Don't give an injured man brandy or whisky or any stimulants while he is bleeding; keep him quiet and warm.
If any bones are broken, put on splints before moving him. If you are in doubt as to whether the bones are broken, always put on splints.
If you find that he has no broken bones and is not bleeding or spitting blood, but is very pale and is cold and breathes fast, keep him quiet; lay him on his back, lower his head, cover him with brattice cloth, clothing, blankets, or the like; place safety lamps, if they are used in the mine, under covers near him as an aid in keeping him warm; do not let others crowd around him, but give him plenty of air.

Malaria is spread by a special mosquito.

SAFETY FIRST IN BLASTING

We believe that all employers of labor try to exercise reasonable care to prevent accidents to their men. Ordinary instincts of humanity, if nothing more, would dictate such a policy.
In the state of Pennsylvania now there are additional reasons why employers should be particularly careful to avoid accidents. The
new Compensation Law makes the adoption of safety features more imperative in that state than ever before.

We feel that a few suggestions to employers in lines of work that call for the use of explosives will be particularly apropos at this time:

1. Use low-freezing extra dynamites wherever possible in preference to the high-freezing straight dynamites. They are safer because they are less sensitive to accidental shocks, and seldom require thawing. In addition, they are considerably cheaper.

2. Adopt electrical blasting methods wherever possible in preference to fuse and blasting cap method. The principal object of this is to prevent hangfires and misfires, which are always dangerous to workmen.

3. The use of blasting machines in blasting operations makes it unnecessary to have matches on the job. The advantage of this is obvious.

4. Every blasting operation should have a galvanometer for testing blasting circuits and a rheostat as a part of the equipment. These useful little pieces of apparatus eliminate the guessing, which is always expensive and entails risk of life.

5. When thawing is necessary, use standard thawing kettles or thawing house equipment instead of permitting employees to soak frozen dynamite in warm water, or to heat it in ovens, or to thaw it by standing it around an open fire. All of these practices are dangerous.

6. Magazines should be kept clean and dry. Sand, nails, or other foreign substances on floors may cause explosions and result in loss of life.

7. Magazines should be properly located to comply with the American table of distances.

8. Dynamite and blasting supplies should be kept separate until they are ready to be loaded into bore holes.

Compliance with the above simple suggestion may save a good many lives and render employers immune from damages under the new Pennsylvania Compensation Law, and what is good for Pennsylvania is good for any other state, even if it doesn’t happen to have a Compensation Law.—Du Pont Magazine, Wilmington, Del.

Don’t waste money for patent medicines and advertised “cure-alls.” They are of value only to those who sell them.
WOOD ALCOHOL—A DANGEROUS POISON

By ROBERT ANSLEY, M. D.

All cans or other receptacles containing wood alcohol should be labeled "Wood Alcohol—Poison," and kept locked up so that no one can meddle with same or drink same by mistake.

When using wood alcohol to clean electrical apparatus or for mixing shellac, paint or for any other purpose, care should be taken to have good ventilation, as the fumes are just as dangerous as the fluid.

The symptoms of wood alcohol poisoning are hoarseness, headache, ringing in the ears, trembling, difficult breathing, nausea, convulsive twitching of muscles, impairment of sight. Severe cases suffer from weakness of the heart, delirium, coma and after consciousness is recovered more or less permanent complete blindness.

It is recommended that wherever possible denatured alcohol be used instead of wood alcohol.

Guards are placed on machinery for your protection. Don't operate the machinery unless guards are in place.

DANGERS IN REFORMING SAFETY CONDITIONS

In the pursuit of reform in conditions at mines, as elsewhere, there is the danger of going too far. The extremist for profit will view mine-safety expenditures with an eye to immediate costs of installation and operation, whereas the idealist will urge such a refinement of methods, such a thorough protection, and so wide-reaching a paternalism as will be unjust and as well instill too great confidence in the minds of the operative, and therefore produce carelessness. It is unnecessary to argue that there are inherent and unavoidable risks in industry. The fact is recognized by all except a very few unreasoning enthusiasts. Any system of safeguarding employees that minimizes their sense of personal responsibility tends to increase casualties. Many employers hold that safety precautions may be carried so far that this sense of personal obligation will not only be diminished, but that it will be entirely destroyed. The responsibility for preventable accidents lies, not with the employer alone, but with the employee as well. Both usually suffer through careless acts. No sentimental considerations, no effort to take a position where there can be no criticism of his zeal for safety, should cause one to forget that both parties are accountable and that they have duties equally important and
urgent. Many employers of mine labor in the Lake Superior region have taken every reasonable precaution to safeguard mines and machinery, and their study has been extensive along the lines of the improvement of safety devices and the formulation of safety rules, in the light of actual daily practice. Sentimentality must not obscure the fact that carelessness, recklessness, and a disregard for orders put the workman in the class of the employer who makes no provision for safety but carries forward his operations with no attention to the obligation due his fellow men. Not only does the careless laborer imperil himself, but he endangers his fellows as well, and he may frequently nullify every appliance, device, and rule, upon which his employer may have expended great sums of money, much time, and anxious thought. Strict discipline is one of the requirements of the situation, for only by obedience and co-operation can the utmost good be obtained from expenditures for safety.—U. S. BUREAU OF MINES.

Abundant fresh air will prevent more disease than will unlimited medicine.

THREEFOLD BENEFIT OF HEALTH INSURANCE

Wherever health insurance for workmen has been in operation it is agreed that the cost should be distributed among employers, employees, and the state, or government, for all three are beneficiaries.

An employer may ask: “How am I benefitted by having my employees insured to receive help when sick?” The answer is that it is profitable to him to maintain and improve the health of his workmen. This is true of the employer as a class. The employer would not pay the cost from his own pocket, but would transfer the expense to the industry, and this would be fair because the industry is the cause of the greater part of the sickness of workmen. Many employers, particularly railroads and steel plants, recognize this by maintaining a sickness insurance fund, withholding from each man’s pay a small per cent for the cost. Also, many employers, like railroads, maintain hospitals for their employees. All of this would be standardized and made universal by a compulsory system of health insurance. The employer would then have a new motive for safeguarding the health of his workers. He would have an added reason for keeping his shop safe and clean. He would be more than repaid by the increased efficiency of his employees, which would follow naturally their better condition of health.—KANSAS CITY (Mo.) TIMES.
SAFETY APPLIANCES

It is hardly necessary to refer to the objective of safety appliances. The state, in its mature judgment, as voiced by its legislature, has seen fit to make certain requisitions on employers operating hazardous industries. It has imposed obligations on the board to see that these requisitions are met. Safety appliances, wherever possible, must be installed. The state's interest in this subject is ostensibly one of economic value, yet everyone knows, who has given public movements a moment's thought, that back of every law like this is the sentiment of humanity dwelling in the public heart. To protect human life and guard against injury to body and limb are cardinal elements in human life itself. The necessity for collective co-operation is so urgent and appalling in this age of tremendous operations that the individual is being looked after by the public. The body politic, which has heretofore been considered an individual without soul or sentiment, has developed into an entity possessing all these attributes which distinguish man from the brute creation. Therefore, the public in the great industrial work is solicitous regarding the safety of its individual. It goes with him into the mines and insists that rational conditions must be maintained; that avenues of escape must be provided for in case of unexpected calamity. It accompanies him to the mill, smelter, workshops and logging camps, and waits until safety appliances are installed to guard the thoughtless and unwary from the exposed belts, shaftings, gearings, pulleys, saws and protruding set screws.—(Mont. Ind. Accident Board Rept.)

Health is not put up in bottles, neither can it be bought at the corner drug store.

SAFETY SLIDES FOR TRAM CARS

In loading cars from chutes, chunks frequently roll off from the top of the car, especially when the car is almost full or when there is a sudden rush of muck through the chute. It is at this time that the man loading the car receives a badly injured foot or, in an effort to protect his foot, tries to hold the chunks on the car, and the result is a badly bruised hand. By having safety boards six or seven inches above the top of the car, which boards are removable, being placed in cleats on the side of the car, it will prevent the chunks from rolling off the car and injuring the man. Such boards may be easily removed when the car is full.
AT THE OLD DOMINION

The Old Dominion has worked their First Aid and Safety work into a social organization and in so doing has stimulated great interest in the work.

The First Aid and Safety smoker, which was given at the Old Dominion library in Globe recently, was one of the greatest efforts in the history of the Old Dominion First Aid organization. Director Orr Woodburn states that the International smelter at Miami has contributed several numbers to the entertainment in appreciation of the courtesies extended their men in First Aid training. The program for the evening, in part, follows:

Three-round boxing contest, Gampp vs. Frazier; monologue, B. V. von Seden; xylaphone selection, Franke and partner; bag-punching exhibition, International smelter number; saxaphone solo, Eli Banfield; mine safety slides with remarks by Steve Tillman; Swede impersonation, Ed. Martinson; three-round boxing contest, International smelter number; vocal solo, C. A. Clark; wrestling match, Tony Ajax and partner.

Peelings on the sidewalk, apple cores and all,
Kick them in the gutter, save someone a fall.

BEING CAREFUL FIRST

Senator Weeks, of Massachusetts, smiled the other evening when reference at a dinner was made to the question of caution. He said he was reminded of an incident along that line.

Some time ago Uncle Josh had to go to the city and his business keeping him away from home over night he stacked up against the unfamiliar procedure of hiring a room in a hotel. Having expressed his wants he was about to leave the desk when the rather pert clerk called him back.

"Well, what is it?" responded Uncle Josh, retracing his steps. "Have I forgot somethin'?"

"Sign your name here," said the clerk, peremptorily pointing to the registry. "Other guests would like to register."

"See here, young feller," said the farmer, assuming a leisurely attitude, "don't ye try ter hurry me. I don't sign nothin' that I hain't read over fust."—Evening Telegraph.

Morning eye opener—a pint of water inside.
Did booze ever do you any good?
REWARDS FOR SAFETY WORK

Various plans have been tried to interest the individual workman in his own safety. It is very easy to excite his curiosity or cupidity and appeal to family ties is effective for a time, but it requires patience and perseverance on the part of the foreman and superintendent to keep the men steadily up to the safety standards set for the shop.

A circular letter distributed to the employees of one of our members offers rewards in the shape of extra pay or time off to the men and bonuses to the foremen. Every month the department having the best record is given time off or extra pay equivalent to sixteen hours time and foremen receive a bonus of 5 per cent of their monthly wages.

The plan is an excellent one and the rewards offered are very liberal when one considers that the only object sought is the safety of the men themselves. Strange as it may seem, the complaint of the workman of a decade ago has been turned squarely against him. Then it was the cry that the "Boss didn’t care." Today the "boss" can say with just as great measure of justice, perhaps, that the men "Don’t care."

As a matter of fact both "care," but because of our lack of public demonstration we haven’t made each other fully understand—that is where the reward for safety work bridges the impersonal.

Every plant can well afford to try out some modified plan of extra inducement to secure high standards of safety work.

Bullets may kill thousands—flies tens of thousands.

BYGONE MEMORIES

Philip is an amateur artist who raves about nature. One day he was giving all his attention to a painting of a sunset of lurid red, with blue streaks and green dots. An old rustic crossed the meadow and stopped behind him at a respectful distance.

“Ah,” said Philip, looking up at the old farmer suddenly, “perhaps to you, too, nature has opened her sky pictures, page by page. Have you seen the lambent flame of dawn leaping across the livid east; the red-stained, sulphurous islets floating in the lake of fire in the west; the ragged clouds at midnight, black as a raven’s wing, blotting out the shuddering moon?”

“Well, no,” said the rustic; “not since I give up drink.”
WHEN IS A MAN DRUNK?

No one with any education whatever will attempt to justify the use of alcohol “in excess.” Many men of good education, and in other respects sane and sensible, persist in the belief that “moderate drinking” does no harm, or even produces beneficial results to health or happiness. When asked to define “moderate drinking,” the greater number of really temperate men will say: “O, an occasional cocktail, or a glass of beer.”

Recently scientists made extensive and exhaustive tests, on a large number of people, as to the physical and mental results produced by the use of one average sized cocktail per day, or its equivalent in alcohol in other beverages. The result showed that this amount of alcohol per day will set you back about 7 per cent in muscular endurance and about 15 per cent in your ability to remember things. So that in reality a man is drunk after he has had one drink.

If you are one of the “moderate drinkers,” who have deluded yourself with the idea that you were doing yourself no harm by your “moderate drinking,” you should read the report of these experiments, under the above title, in the American Magazine for April.

If you are a teetotaler, the reading of the article will give you additional arguments.

The full dinner pail—the open window—
the clean well—make for health.

TYPHOID FEVER

It is now known that typhoid fever is caused by germs. Germs are tiny things so small that they can not be seen with the naked eye. Hookworms are plainly visible; germs are not. The smallness of typhoid-fever germs can be realized from the fact that 36,000 of them placed side by side make a line only 1 inch long. If we did not know their ways it would be practically impossible to protect ourselves from such invisible foes. It is now known that typhoid germs leave the body with the bowel discharges. This is true not only of sick people, but also of those who are “coming down” with sickness or of those who are convalescent. More serious still, recent investigations have shown that persons who are seemingly well discharge disease germs. Such persons are known as “carriers.” The only safe protection is to shun contact, direct or indirect, with all human excrement, because that is the source through which the disease typhoid is communicated. Each case of typhoid fever cries out that this fundamental law of cleanliness has been violated.
GOOD BOOKS


A small text-book prepared for and indorsed by the American Red Cross, which treats of first aid subjects of interest to the worker in the industrial field. This manual is issued in various editions, namely: Miners' edition, Railroad edition, Woman's edition, and others. Certain facts which are necessary to all workers in first aid are included in each edition, but the specific facts applying only to special classes are given in the edition for which that information is most useful, i.e., First aid treatment for accidents peculiar to miners will be found in the Miners' edition; to railroad men, in the Railroad edition; to the home, in the Woman's edition. The volumes are indexed for ready reference.


Presents the principles of sanitation and the essentials of public hygiene in a clear, well-arranged text for children. Through graphic illustrations and practical suggestions which any child can understand, it aims to teach children how to escape germ diseases and how to co-operate in conserving community health.


A general survey of the different systems of workmen's insurance in the United States. The book is an accumulation of information as to what is actually being done by various societies, states and firms throughout the country. A summary of European laws on industrial insurance prefaces the work to indicate the various tendencies of thought and activity in this field. The appendices supply a bibliography and texts of important laws, contracts, constitutions and reports.


A clear exposition of the principles of the subject and a description of selected types in England, France and the United States. The
author has devoted twenty years to the direction of co-partnership in Great Britain and has high hopes for its attainments. Written from the employer's standpoint.


A brief but thorough study, chiefly concerned with American aspects of the question. Contents: Statistics of industrial accidents; social cost of industrial accidents; voluntary agencies compensating industrial accidents; employers' liability in the United States; employers' liability insurance. The concluding chapter gives the principal provisions of employers' liability laws in Europe and suggestions for their adaptation to the problem in America.

*A clean mouth is essential to good health.*

**The Put-it-offs**

My Friends, have you heard of the town of Yawn,  
On the banks of the River Slow,  
Where blooms the Wait-awhile flower fair,  
Where the Sometime-or-other scents the air,  
And the soft Go-easys grow?

It lies in the valley of What's-the-use,  
In the Province of Let-'er-slide;  
That tired feeling is native there,  
It's the home of the listless I-don't-care,  
Where the Put-it-offs abide.

The Put-it-offs smile when asked to work,  
And say they will do it tomorrow;  
And so they delay from day unto day,  
Till death cycles up and takes them away  
And their families starve, beg or borrow.

—Anonymous.