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FOLLOW THE FLAG

Armies in the field are helpless without the cooperation of the armies at home. Not all of us are capable of fighting in the trenches or on the seas —the greatest army of all must remain in the mines, the factories, the shops, and on the railways. Honors may go with rifle and machine gun; calloused hands and weary bodies may be the portion of the toilers in the industries, but all must work together to help the Stars and Stripes— the Flag of Freedom.

WE ARE AMERICANS

STAND FIRM FOR FREEDOM AND SAFETY

LABOR AND CAPITAL

John D. Rockefeller, Jr., recently delivered an address at Cornell University which, we believe, deserves partial publication as follows:

"Heretofore, the chief executive of important industrial corporations have been selected largely because of their capacity as organizers or financiers. The time is rapidly coming when the important qualifications for such positions will be a man's ability to deal successfully and amicably with labor.

"I believe the personal relation in industry will eventually be regarded as an important part of those college courses which aim to fit men for business life.

For, after all, is it not the personal relations with one's fellows which, when rightly entered into, bring joy and inspiration into our lives and lead to success, and which, on the other hand, if disregarded or wrongly interpreted, bring equally sorrow and discouragement and lead to failure?

"Labor and capital are naturally partners, not enemies; and the personal relation in industry, entered into in the right spirit, gives the greatest promise of bridging the yawning chasm which has opened up between employer and employee.

"Too often capital regards labor merely as a commodity to be bought and sold, while labor not infrequently regards capital as money personified in the soulless corporation. But labor and capital are men —men with muscle and men with money. Both are human beings and the industrial problem is a great human problem.

"The popular impression that from the very nature of the case labor and capital are two great contending forces arrayed against each other, each striving to gain the upper hand through force, each feeling that it must arm itself in order to secure from the other its rights and its just dues, is even more unfortunate than it is untrue.

"I cannot believe that labor and capital are necessarily enemies. I cannot believe that the success of one must depend upon the failure or lack of success of the other. Far from being enemies, these two forces must necessarily be partners. Surely, their interests are common interests; the permanent well-being of neither can be secured unless the other also is considered, nor can either attain the fullest possibilities of development which lie before both unless they go hand in hand.

"Only when the industrial problem is approached from the point of view of a firm belief in this doctrine is there any hope of bringing about closer, more healthful and mutually advantageous relations between these two forces.

"If labor and capital are partners, then certain things must follow. They must have contact. This standing aloof one from the other must end. Partners know each other, they rub elbows, sit around the same table, come to understand each other's point of view.

"Respect grows in the heart of each for the other, confidence is developed, and they come to realize that they are working with a common interest for a common result. But this attitude, this relationship, is the personal relation in industry. Nothing else will take its place, nothing else will bridge the chasm of distrust and hatred.

"As the officers of our great corporations come to see more and more that the problem of understanding their employees and being understood by them is a vital problem, one of the most important with which the management is confronted, they will be convinced not only of the wisdom of devoting far more time to such contact but of the desirability and the advantage to themselves and to the employees as well as to the company, of such closer relation and intimate conference in regard to matters of common interest and concern."

Cooperation spells success.

FOOLING ON THE JOB

There are many violations of safety first rules (says the Anode) which can, by suggestion, warning or example, be minimized to a great extent. That of fooling on the job is one of these violations and worthy of mention. By fooling is meant pranks, wrestling, sparring, feats of prowess and daring, playing water hose on one another and other similar capers.

A man, while trying to escape a streaming hose, has been known to slip off a bridge and fall head first on a pile of rails. A heavy scar over his eye is striking testimony to the effect of fooling. Another man, while wrestling, ran an indelible pencil an inch and a half into his breast. Still another who scratched his hand while sparring, now knows all the agony of blood poison. These are mere instances of hundreds showing the heavy penalties exacted by this seemingly harmless yet dangerous practice of fooling.

Happily the class of men addicted to it is in the minority, composed mostly of the younger and more inexperienced workers. A foreman, to eliminate this evil, would require the eyes of an eagle and the stealth of a ferret, so it is up to the men themselves.

Around machinery it is a particularly dangerous practice, and if

those so inclined would remember where they are, and that not only their own lives but those of their fellows are endangered by their actions, there would doubtless be fewer of the accidents that mar, maim and destroy.

A bulletin of the safety department of the Michigan Workmen's Compensation Mutual Insurance Company says:

"Fooling, scuffling and horseplay have no place here.

"If you are tempted to play a joke on some one think of what might result from your thoughtless bit of fun.

"You would not want to injure a fellow-workman, causing him pain, loss of time from work and perhaps cripple him for life. It would worry you a great deal to know that you had caused such misfortune, but these things often happen when a practical joke is played.

"Lend your support toward making this a safe place to work. Don't contribute to the injury of a fellow-workman."—SAFETY ENGINEERING.

Acquire the safety habit. It is a habit that will never injure you.

THOUGHTS ON EATING

Here are some thoughts on eating—and not eating:

All efficiency of productions begins with human efficiency.

Human efficiency begins with proper eating.

Nearly everybody eats too much.

Proper elimination is just as important as nourishment.

It is a good thing to eat bulky food like vegetables and whole wheat bread with added bran in order to aid elimination.

Eat meat but not too much of it; it is too concentrated and without enough bulk to eliminate itself alone.

Beware of greasy foods; grease on foods is a digestion proof film—the gastric juices cannot get at the food to digest it—it is like swallowing whole a piece of link sausage. The same bodily energy otherwise used in digesting greasy food can be used to more advantage in thinking and acting on your thoughts.

Chew your food, don't bolt it; it is foolish to do with the stomach what can be done by the teeth.

The same bodily energy used in digesting food that has been swallowed whole can better be used for thinking and working.

The reason people feel stupid and heavy after a heavy meal is that all their energies are being consumed in digesting food.

The reason so many of us can concentrate and think and work better late at night or in the early hours of the morning lies in the fact that the stomach is empty and the bodily energies are not being consumed in food digestion.

A cold is a pretty good sign that we are full of clinkers—eating too much.

We can starve out pretty nearly any of the common ails like indigestion, sluggish liver, colds, bronchitis and the common skin eruptions by a three to five-day fast.

What we think is hunger is mere emptiness.

During a fast keep filled up on water to relieve the feeling of emptiness.

Eat liberally of oranges and grape fruit to eliminate the past accumulation of clinkers.

Health and ill health is all a battle between the good and bad germs in the body; by fasting the bad germs are eliminated by starvation. They are consumed while only the good germs have the strength to survive.

During a fast partake of absolutely no alcoholic stimulants, tea, coffee or tobacco.

It is easy to quit smoking during a fast; the desire is eliminated.

During a fast do not eat until you are sure you are hungry; do not confuse the feeling of emptiness with that of hunger.

There is little feeling of emptiness after the third day of a fast.

The whole object of a period of fasting is to give the digestive and eliminative organs a rest and starve out all that is the matter with us.

Then aside from physical reasons a period of fasting is fine exercise for the human will.

But alas—few of us have the desire to exercise the will in this way or to cease to exercise our digestive organs.

What is needed is more safety men as well as safety devices.

AN APPEAL TO WOMEN*

Every woman can render important service to the Nation in its present emergency. She need not leave her home or abandon her home duties to help the armed forces. She can help to feed and clothe our armies and help to supply food to those beyond the seas by practicing effective thrift in her own household.

*Weekly News Letter, U. S. Department of Agriculture.

Every ounce of food the housewife saves from being wasted in her home—all food which she or her children produce in the garden and can or preserve—every garment which care and skillful repair make it unnecessary to replace—all lessen that household's draft on the already insufficient world supplies.

To save food the housewife must learn to plan economical and properly balanced meals, which, while nourishing each member of the family properly, do not encourage overeating or offer excessive and wasteful variety. It is her duty to use all effective methods, to protect food from spoilage by heat, dirt, mice or insects. She must acquire the culinary ability to utilize every bit of edible food that comes into her home. She must learn to use such foods as vegetables, beans, peas, and milk products as partial substitutes for meat. She must make it her business to see that nothing nutritious is thrown away or allowed to be wasted.

Waste in any individual household may seem to be insignificant, but if only a single ounce of edible food, on the average, is allowed to spoil or be thrown away in each of our 20,000,000 homes, over 1,300,000 pounds of material would be wasted each day. It takes the fruit of many acres and the work of many people to raise, prepare, and distribute 464,000,000 pounds of food a year. Every ounce of food thrown away, therefore, tends also to waste the labor of an army of busy citizens.

Clothing is largely an agricultural product and represents the results of labor on the sheep ranges, in cotton fields, and in mills and factories. Whenever a useful garment is needlessly discarded, material needed to keep some one warm or dry may be consumed merely to gratify a passing fancy. Women would do well to look upon clothing at this time more particularly from the utilitarian point of view.

Leather, too, is scarce, and the proper shoeing of armies calls for great supplies of this material. There are only so many pairs of shoes in each hide, and there is a shortage of animals for leather as well as for meat. Anything that can be done to encourage adults or children to take care of their shoes and make them last longer means that so much more leather is made available for other purposes.

Employees, women, especially those engaged in the manufacture of food or clothing, also directly serve their country and should put into their tasks the enthusiasm and energy the importance of their product warrants.

While all honor is due to the women who leave their homes to nurse and care for those wounded in battle, no woman should feel that, because she does not wear a nurse's uniform she is absolved from pa-

triotic service. The home women of the country, if they will give their minds fully to this vital subject of food conservation and train themselves in household thrift, can make of the housewife's apron a uniform of national significance.

Demonstrate thrift in your homes and encourage thrift among your neighbors.

Make saving rather than spending your social standard.

Make economy fashionable lest it become obligatory.

The trouble with the average reformer is that he thinks everybody is as well informed as himself.

RADIUM APPLIED TO MINING

By S. C. Dickinson

Marvelite is a word meaning "marvelous light," and is a soft, mellow, pleasing glow rather than a brilliant flash and it is without heat.

Marvelite is what might be termed a perpetual light, because it is permanent, for at least all practical purposes. The reason for this is that its glow is caused by the vibrations created in a certain responsive base by the presence of radium and radium takes 1800 years to lose one-half of its energy-generating power.

Radium is an element in the same sense as gold, silver, iron and aluminum are elements, but it is infinitely rarer and more difficult to obtain. The energy of radium appears in the form of rays and they are the alpha, beta, and gamma rays. The alpha and beta rays are particles traveling with a certain high velocity and their velocities are 5 to 7 per cent the velocity of light, and 30 to 99 per cent the velocity of light. The beta and gamma rays are those from which we benefit in the case of medicinal application and they are very penetrating, penetrating ¼ inch of lead and 1 inch of iron respectively. The alpha rays have very small penetrability and are absorbed by even a piece of tissue paper. These alpha rays are the ones that produce light when in contact with a responsive material. The alpha rays, being particles with a high velocity, strike a responsive particle and it produces a minute flash and the mass of these flashes are what we perceive as light.

Marvelite, when looked at in the daylight, resembles merely a powder or a slip of smooth sandpaper. At night it never glares, but

simply glows steadily with a soft, pleasing, greenish tint. Due to this luminosity this material is being manufactured to do away with the trouble we have in telling the time at night; finding the electric switch in the house, cellar, office; finding a keyhole, or in fact, whatever we have to find in the dark.

WHY NOT APPLY IT TO MINING? It is made so that it is possible to cover any surface and in such a case it would be possible to apply it to mine signs, electric switches, manholes, on the mine signal board, and could be applied to many other things.

By doing this the mine signs, etc., would always be visible and in case of disaster, permanent luminous signs which do not depend on any other source of energy, would be a great help to those who had lost their lights, or in a place where lights would not burn, or where it would be unsafe to have a light.

Safety work is an investment of good will in the most productive and profitable of all business enterprises.

THE PRICE OF DRINKS.

If you are a drinking man, let us assume that you and a friend have just had a sociable drink together, and that you are buying.

"How much, old man?" you ask mechanically, turning to the bartender.

"Twenty-five minutes apiece," he replies solemnly, "twenty-five for you and twenty-five for the other fellow. Then, of course, there is the regular price of a quarter besides."

"Twenty-five minutes!" you repeat in astonishment. "Where does that come in?"

"Well," he explains haltingly, "I have just been reading in this magazine here, The American, how Dr. Edwin F. Bowers has figured out that every drink you take shortens your life just twenty-five minutes. He gets his figures from a report on two million cases taken from life insurance records, and I guess he knows what he is talking about. It started me doing a little arithmetic for my own benefit. But that made fe feel so queer, I began to figure on the number of drinks I have served during the last ten years; and if this guy is right, I have sure contributed my little bit to the vital statistics. I felt I ought to tip you off before you killed another fifty minutes between you."

If you had met this most improbable bartender, and his remarks had impressed you, you would naturally be interested to hear more from Dr. Bowers. Here are a few paragraphs from the same article:

"In compiling statistics along this line one must consider the person who, prompted by the white maggots of despair that crawl in the brains of alcoholics, escape the oppression of circumstances by killing themselves. According to the United States mortality reports 23 per cent of suicides in the United States are directly traceable to intemperance. Between 1900 and 1908, it is estimated 11,986 alcohol addicts died by their own hands.

"It is conceded, even by conservatives, that between sixty thousand and seventy thousand persons die annually in this country from the effects of alcohol. In other words, 8.4 per cent of the entire number of deaths in the United States are due to this dangerous protoplasmic poison—this degenerator of brain—and tissue cells. To be exact, E. Bonnell Phelps * * * claims that 65,897 deaths per year are directly due to use of alcoholic liquors. This estimate signifies one adult death every eight minutes, or, in other words, one man in every seven and one-half who die in the United States dies because of drink.

"The claim is made also that, of the one thousand deaths among drinkers, four hundred and forty, or nearly one-half, are due to alcohol. Applying these figures to the continental United States, more than 680,000 deaths a year (both directly and indirectly) can be charged to the killing power of the white poison. This is exclusive of the mortality in our possessions, which would bring the total up to 725,000 per year. Which means that alcohol is bludgeoning our people out of existence at the rate of two thousand per day.—B. R. T. MONTHLY.

Acquire the safety habit. It is a habit that will never injure you.

AS THINGS GO NOW

"What are you going to make of your son Charley?" I asked.

"Well," replied Charley's father, "I made a doctor of Bob, a lawyre of Ralph and a minister of Bert; and Joe is a literary man. I think I'll make a laboring man of Charley. I want one of them to have a little money."

Tomorrow is unborn. Yesterday is over. Today is yours.

WHAT IS FIRST AID?

First aid in emergencies does not include the diagnosis and treatmen of disease, the application of therapeutics, or the practice of medicine or surgery. Persons skilled in all of these arts may practice first aid, but in practicing and applying these arts they are not exercising true first aid according to its correct definition.

As a matter of fact, many practitioners of medicine misunderstand the true meaning of first aid and either condemn it or, in practicing it and in imparting it to others, overstep its true sphere. Modern first aid as applied in the factory, workshop, mine, store, household or wherever it may be needed in simple life is a complement to first aid on the battlefield.

First aid to the injured from the viewpoint of the industrial worker has been aptly described as a bridge between the accident and medical and surgical assistance, and this bridge should always be kept in mind when speaking of first aid or when applying it. Over this bridge the injured person is to be carried from the place of injury to a place of treatment, and once the bridge is crossed and the injured man is placed in the hands of a medical attendant or in the hospital, first aid is at an end. Thus we see that the true office of first aid is to relieve the injured person from immediate suffering and to prevent further injury.

Action of this character is first aid, whoever may render it. A person trained to this end, such as a mine worker who has had special instruction and who is perhaps a member of a first aid team, a physician or a nurse, may render first aid more skillfully than an untrained person, but in either instance the action here outlined is first aid in its beginning and in its end. It will therefore be seen that the permanent treatment and care of injuries, administration of medicine, the diagnosis and treatment of disease are not parts of first aid, and it is for the lack of a clear conception of that work as here outlined that much prejudice has arisen against the movement, and first aid has failed to make the progress to which it is fully entitled. In short, it has been overloaded and complicated and what it needs at the present time is to be stripped of the nonessential and brought down to its first and underlying principles.

Experience in France during the present great conflict has shown that the most successful application of first aid is the covering of the injury with a pad and the application of the triangular bandage, leaving all other manipulation of the injured person for skilled attention at the hospital, which may be many leagues away.

Complications have arisen in first aid by reason of the various laws and regulations enacted by overzealous but unenlightened legislators. Hence we have a law in one state which requires a first aid equipment containing a given number of items, sometimes including dangerous and poisonous applications; on stepping over the line we meet another set of laws and regulations requiring an entirely different outfit. The legislation as to what should constitute a first aid equipment passed by the State of Illinois marks what should be specified, though perhaps it is a minimum requirement. That state also has prescribed that at least six regulation first aid packets be provided for train service.

Owing to the misconception of true first aid and to the complicated systems whcih have been introduced into mines and industrial institutions, many men who might otherwise render efficient first aid service have become scared at the complicated array of equipment, rules, regulations and instructions, and in consequence do nothing. Others have acquired a little but dangerous knowledge, overdo the matter and become involved in the whole realm of diagnosis, treatment, therapeutics, medicine and surgery.

The point which should be impressed is that we should simplify our first aid equipment and our instruction, service and application. The first aim is the immediate care of the injured in order that no extension of the injury may take place; the second aim is to transport the injured person as soon as possible and place him in the hands of a skilled medical attendant. This is where first aid becomes an adjunct to safety first, safety to the injured person, then safety in the method of handling the injured person, and safe transportation to a place where the injured person may receive proper treatment.

Save life first. When that is done protect property.

COMMON CAUSES OF FIRES

Spontaneous combustion in oils, paper, waste, benzine, rubbish, oily rags, paint materials.

Thoughtlessness in handling of matches, gas fires, cigarettes, chemicals, electricity, pipe ashes, cigar stumps.

ARE WE AS CAREFUL AS WE SHOULD BE?

Are you?

Am I?

—NATIONAL SAFETY COUNCIL.

"THINK"

By Alex McDonald, Great Falls Reduction Works

A great deal has been accomplished by the safety movement along the lines of safeguarding places of danger, eliminating dangerous practices, guarding machinery and making working conditions safer in general; but the employer cannot do the thinking for the employee, which is so essential to safety.

An enormous amount can be done towards the reduction of accidents by educating men "to think" and it is the opinion of the writer that it would be well to direct more energetic effort to reach the man on the job and teach him to think.

Thoughtlessness is the cause of seventy-five per cent of all accidents. Question the man who has been injured and as a rule about the first words he will utter are, "I didn't think." After a fatal accident the evidence invariably produced at a coroner's inquest brings out very forcibly the sad fact that "someone didn't think."

The "I-don't-think" and "I-won't-think" mental state in which men so often perform their daily duties must be changed to the "I-do-think" and "I-will-think" attitude in order to reduce accidents.

Better take a few moments to think and prevent an accident than to spend time in the hospital just because you didn't think.

Often a chance is taken and an accident results due to a mental feeling of unwillingness at the instant to use a little extra effort to do what is right. Another frequent cause of accidents is allowing the mind to lapse, brought about by an absorbing interest in something foreign to what we are doing, and altogether too often because we do not take enough interest in our work to keep the mind concentrated on it.

Personal interest in safety is the remedy. Control your thoughts. Keep in the right mental attitude toward yourself, your fellow workmen and your employer—not a part of the time, but all of the time. Banish the thought that someone is going to look out for you; look out for yourself by keeping your sense of safety on the alert at all times.

Safety should be our sixth sense and by a concentration and will power it can readily be developed to a remarkable degree. Thus, it endows us with the intuition to scent danger and play safe almost unconsciously. It also becomes a valuable asset working constantly for our protection and like a habit is soon a fixture in our daily lives.

Think of the new man, show him the dangers connected with the

job so that he will see how a little forethought will prevent an accident.

Think, fellow, think! It's a man-to-man proposition. Pass it on, and you will then be "doing your bit" for safety.

Think it over. Get the habit. "THINK"—it pays.—THE ANODE.

Seven out of ten accidents are caused by carelessness. Cause: Liquor makes men careless.

THE COMPLAINING WHEEL

BY WILLIAM JOHN HOPKINS

A farmer was one day taking to market a load of vegetables. The load was heavy, and as the horse pulled the wagon up a hill, the man heard one of the wheels groaning and complaining.

"It isn't fair," said one of the spokes. "You other spokes are shirking your work. Just before I began to speak, I was carrying the whole load. Why don't you help?"

"I am carrying the whole load now," said the spoke that was just then at the bottom. "You have no more right to complain than I have. Why don't you work, instead of scolding at me? It's your own fault."

"Oh, dear," cried another spoke, "now it has come down on me and on that great stone, too. If you let that happen again, I shall get out of this."

"O—oh!" groaned the first spoke when the wheel had made a few more turns. "That was a terrible blow that I got when we fell into that hole. If you other spokes keep on shirking, I shall strike."

"I believe it's the felloe's fault," said the eighth spoke. "So far as I can see, he isn't doing any work at all."

"I don't care whose fault it is," said the third spoke. "If we strike a stone again when I am at the bottom, I shall get right out and let you others take care of yourselves."

"The felloe is jealous," said the second spoke, "and the rest of you are not much better. I never thought I would have to work with such a lot."

"Nonsense!" said the felloe. "I can't help it. The tire is a loose thing. He is not helping at all."

Then the farmer heard another voice that was smooth and hard, and he knew that one of the other wheels was speaking.

"If you people don't stop your quarrelling," said the other wheel, "and work together as well as you can, you will let the whole load down. Here are the rest of us doing our work without any fuss. It isn't fair for you to spoil it with your little quarrels."

At that the complaining wheel groaned more loudly than ever.

"Well," said the other wheel, "no good will come of it. It will be the worse for you. You will see."

"Ho, you people!" said the farmer to himself, "I will attend to you."

Soon the wagon came to a village and stopped before the shop of a wheelwright. "Take off that groaning wheel," said the farmer, "and put on a new one."

So the wheelwright propped up one end of the wagon and took off the wheel that had complained. He found a new wheel that was the right size, and put it on in place of the old one.

"Now," said the wheelwright, "will you take this old wheel with you?"

"No," said the farmer. "It is a bad wheel. Break it in pieces and burn it in your fire."

Then he drove on with his load, and all the wheels worked quietly and happily together.—EXCHANGE.

Cooperation. Remember that each person is responsible for his success and that his success is dependent on the success of his employer.

MISFIRES

Never return to a shot that has failed to explode until at least ten minutes after lighting it, if squibs were used, or twelve hours after lighting if fuse was used. When shots are fired electrically be sure that all wires are disconnected from the battery, and wait at least five minutes before returning to the face. Never withdraw a shot that has missed fire. Drill a fresh hole at least two feet from it but parallel to the old hole and fire this new hole. After the shot a careful search should be made for the unexploded charge to prevent it being struck by a pick and perhaps causing an explosion.

The Safety First movement has founded the the greatest get-together club in America—and for a worthy purpose.