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Industrial Safety Bulletin Mar. 1933

Maine Department of Labor and Industry

INDUSTRIAL SAFETY BULLETIN

MAR. 1933

Issued by

THE DEPARTMENT OF LABOR AND INDUSTRY

Augusta, Maine

IN THIS ISSUE

Mr. Plant Manager:

Page 1 carries food for thought; if there are any good ideas being thrown out you should know it. Maine's paper and pulp industry show what can be done, on Page 2. Your medical director will want to know about the astonishing results had with gentian violet in the treatment of burns. Would not your foremen learn much from "Three Minute Chats with Foremen"? The Eastern Manufacturing Company is having one hundred copies made of this article monthly, mailing them to their foremen's homes with striking results.

Mr. Superintendent:

Here's an abundance of subject-matter for marked circulation among your staff. Note what paper mills are doing—utilize the Instruction Cards for the tremendous profits hidden therein. See reference above to "Three Minute Chats with Foremen".

Mr. Safety Director:

Here's material for your safety meetings and ideas for you. You'll want to be sure your Medical Director reads the article on the use of gentian violet on burn cases. Read what the Eastern Manufacturing Company is doing with the "Three Minute Chats" as mentioned above.

Members, Safety Committee:

What happens to good ideas and helpful hints introduced at your meetings? Do they enjoy a perfect "follow-through" to meet with a hasty adoption? Herein find more material with which to make progress. Bill writes Tom again—inside back cover.

INDUSTRIAL SAFETY BULLETIN

DEPARTMENT OF LABOR AND INDUSTRY - - AUGUSTA, MAINE

CHARLES O. BEALS, Commissioner

Walter J. Brennan	Safety Engineer
Edward K. Sawyer	Inspector
Minnie E. Hanley	Woman Factory Inspector

Vol. I March 1933 No. 20

SAFETY IS WORTHY OF A POLICY

The safety engineer was attempting to describe to the Plant Superintendent the application and merits of a very ingenious and satisfactory safety device. It was being used on a similar machine and for identical work in the plant of a competitor.

Before the explanation was well under way the Superintendent interrupted to ask the operator if he thought "a guard" would not offer a vastly greater protection with but a minimum of annoyance at the point of operation. Promptly and without any effort to ascertain the mechanical and functional principles of such a device the mechanic answered a vehement "No".

The matter was closed, dismissed with a wave of the hand and no amount of pleading or explanation sufficed to overrule the snap decision of a prejudiced operative. With the wave of the hand a certain guaranteed immunity—a very considerable dividend in protection—was banished out the window. The safety engineer left, pondering over the question "Does this firm seek its production policies from Tom, Dick and Harry?" Obviously some of them were dictated from the bench.

And so accident prevention in many plants drags its feet in the parade of industrial progress. Each day sees frantic activity to bring about infinitesimal betterments in production and each day witnesses petty prejudices, ridiculous perspectives and 19th century policies sweep away the production gain.

So long as accident prevention remains a doormat in a plant, just so long will the gap between the few safety-conscious mills and the many safety-delinquents continue to widen. Many agencies clamor to present the key of safety success but only management can unlock the door opening on the throne of immunity.

Safety does not ask for cash; only for a definite, sincere policy. With such a policy success is guaranteed. To be worthy of the name, however, it should emanate from the same high place as do other vital policies.

MAINE PAPER MILLS LEAD NATION

Each year the leading pulp and paper concerns of the United States and Canada enter the Paper Industry Annual Safety Contest, a twelve-month competition, ending June 30th, and each year finds the Maine mills prominent when the prizes are awarded at the National Safety Congress.

A recent score sheet showing the standings of the 83 mills entered in the principal classes indicates that out of seventeen (17) perfect scores six (6) of them are to the credit of Maine firms. OVER 35% OF ALL PERFECT SCORES ARE MAINE MILLS. Outstanding in a number of brilliant performances is the elimination by Hollingsworth and Whitney Company of the Champion Coated Paper Company of Ohio from first place, Group A, Division 1, the largest group, the only perfect record now in this classification.

The Hollingsworth and Whitney Company's record of 1,022,999 man-hours without a lost-time accident is receiving national acclaim. Fraser Companies, Ltd. of Madawaska and St. Croix Paper Company of Woodland are listed as perfect in Group B. More than a half-million man-hours have been worked safely by these mills.

Although Group C has four perfect scoring mills, none of which are from Maine, Group D shows three of the nine so listed to be Maine mills. The International Paper Company's Livermore and Riley mills and the Hollingsworth and Whitney's Abenaquis Mill make up 33 1-3% of the perfect records in this group.

ATTENTION—SHOE MANUFACTURERS

Recently an Emergency Memorandum was mailed the shoe industry, calling attention to certain frightful injuries coming out of flammable shoe cement explosions and carrying an Order relating to the storage of volatile flammable substances.

In spite of such a warning and in the face of the terrific penalties incurred by some, certain other shoe manufacturers have apparently ignored the Order. For their information it is again offered as follows:

Briefly, the Order requests that:

Not more than five (5) gallons of cement containing naphtha or other volatile, flammable solvent should be kept in storage on any one floor of a building after machine reservoirs are filled. Storage of such reserve supplies to be in safety-top containers or equally satisfactory devices.

Not more than one (1) gallon each of pyroxylin solutions, special cements, spray booth fluids, cleaning fluids or jellies or other volatile, flammable substances, to be stored in tightly-stoppered containers and preferably in safety-top cans, should be kept in storage on any one floor of a plant, except where special conditions or approved storage facilities exist. Special permission should be had in such cases from this Department.

Fastening Plugs to Extension Cords

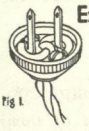


Fig 1.

ALWAYS make sure a strain on the wire cannot pull it loose from the terminals. One good way is to tie the two wires into an *Underwriters' knot then loop the wire ends around the lugs as shown in Fig. 1.

The connection can be made doubly secure by pouring sealing wax around the terminals and wire (See Fig. 2). Look out for hot wax that might run thru the wire hole.

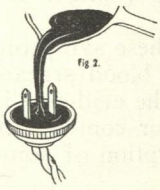


Fig 2.

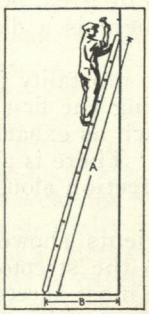
*See Safety Instruction Card No. 9.

SAFETY INSTRUCTION CARD No. 26

To Test a Scaffold Plank

Block it up a foot from the ground placing the supports the same distance apart as the scaffold supports on which it is to be used. Now load the plank with 3 times the load it will be required to support in actual use placing load as close to the center as possible. At the slightest sign of weakness, discard the plank and mark it so no one else will use it as a scaffold plank.

SAFETY INSTRUCTION CARD No. 15

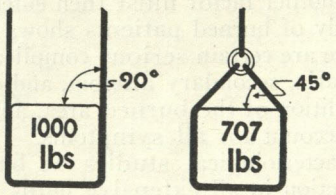


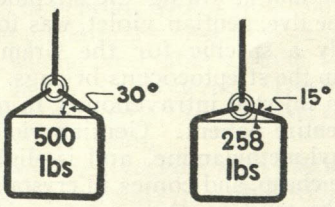
Safe Angle for Ladder

THE best angle at which to place a ladder is that in which the distance B is approximately 1/4 of A. In other words, a 12 foot ladder should be placed so that the bottom of it is 3 feet away from the wall or object it is leaning against.

SAFETY INSTRUCTION CARD No. 16

How the Angle of a Sling Alters Its Safe Carrying Capacity





SAFETY INSTRUCTION CARD No. 24

The Instruction Cards shown above are a few of the many offered to members by the National Safety Council. Many firms are buying these as fast as they are offered, perforating the edges and supplying a loose-leaf notebook to hold them.

Through the courtesy of the Council we are able to reproduce certain of them above. They should serve to make safety meetings interesting and valuable.

THE ROLE OF INFECTION IN BURNS

The Theory and Treatment with Special Reference to Gentian Violet

By Robert Henry Aldrich, M.D.

New England Journal of Medicine, Vol. 208, No. 6, page 299

(Abstracted by Margaret Herrick, Assistant to Director, Division of Communicable Diseases, State of Maine Department of Health and Welfare.)

Dr. Aldrich discusses the two theories most widely accepted as to the cause of the phenomena seen in burned patients. Among these phenomena are fever, blood changes and secondary infection.

The first theory supposes that these symptoms are due to the absorption into the body, via the blood stream, of some toxin liberated from the burned area. The evidence in support of this theory is shown to be indefinite or contradictory, and investigators have proved that this absorption of some unknown toxin is very unlikely.

The second theory of the cause of symptoms in burned cases is based on the blood changes following burns. In extensive burns there is a marked concentration of the blood, due to loss of fluid through subcutaneous edema. In a burn over 1-6 of the body, the blood volume is decreased in 24 hours by a fluid loss of about 70%. Forcing of fluid intake is of great benefit to the patients, but even with this treatment there is a distinct mortality.

Another factor must then enter into the mortality from burns. Study of burned patients shows that during the first three days there are certain serious complications, such as exhaustion, albuminaria, secondary anemia, and delirium. There is also a septic condition of the burned area, and this infection alone is enough to account for all symptoms.

Bacteriological studies on burned patients showed that the infection in all extensive burns is due to the streptococcus. It was decided that that treatment would be most successful which would aim at killing the streptococci, thus sterilizing the burns.

The dye, gentian violet, was found some years ago to be practically a specific for the Gram positive organisms, to which group the streptococcus belongs. This dye is not poisonous even when injected intravenously in quantities large enough to stain the entire patient. Gentian violet is a coal-tar derivative, tryphenyl-methylamine, and is slightly alkaline in reaction. It is quite cheap, and comes in crystals or tablets. The tablets should not be used as they contain an irritating substance. A 1% aqueous solution of gentian violet is easily made and is sterile at all times. It is a specific antiseptic for the invading organism, and it reacts with the burned flesh to form a thin, light eschar, flexible yet tough. The burn is thus sterilized, and protected from further infection by a protective eschar. The dye also produces practically instantaneous analgesia.

The technique of the treatment is as follows: A fresh burn, unless covered with oils or grease, does not need preliminary cleaning, the dye in 1% solution being sprayed directly on the burn. The usual procedures to combat shock are carried out, and the patient is placed with the burned area uppermost. The bedclothes are supported by a cradle and a light bulb is used to keep the temperature under the cradle at between 84° F. and 88° F. This is simply to keep the patient warm. For the first few hours, 1% gentian violet is sprayed on the burned areas every 2 hours. By the time the preliminary sedative has worn off, pain has ceased. After the eschar has formed the patient is sprayed every 4 to 6 hours during the day. Any blebs that may have formed are opened, and the unstained portions sprayed. Unless actual charring has taken place, there are many small islands of epithelium under the eschar, which if kept free from sepsis, will grow and spread; the eschar protects these islands and as healing progresses, the eschar curls up on the margins. These curls can be trimmed away to prevent pockets for infection. If skin grafting is going to be necessary, the eschar is allowed to remain on for about 3 weeks, and then softened and removed by warm compresses of sterile salt solution. By that time, the granulations are ready to graft, and being sterile, accept a graft readily.

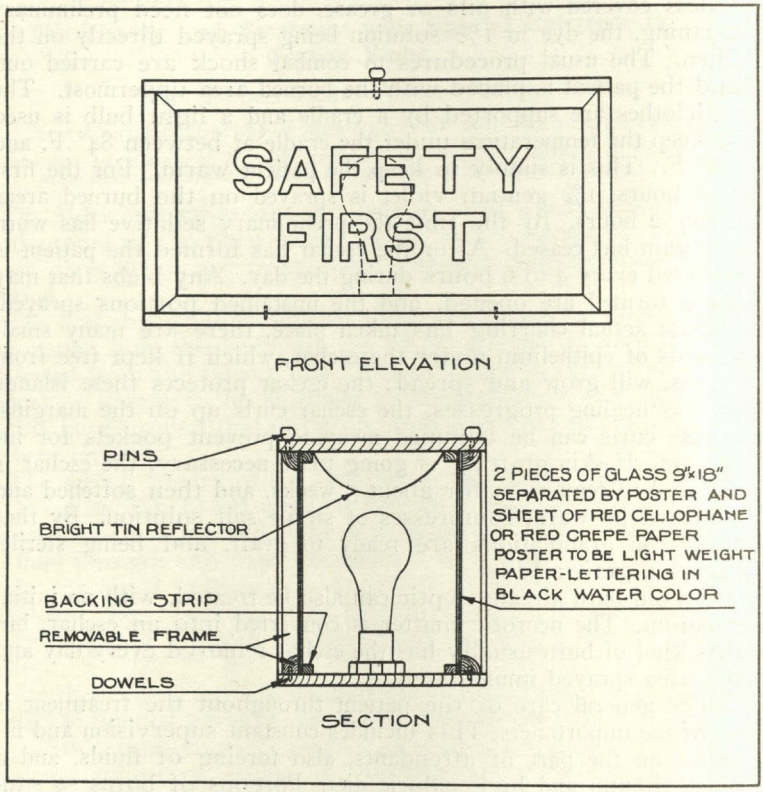
An old burn already septic can also be treated, with no initial clean-up. The necrotic matter is converted into an eschar, but this kind of burn usually has the eschar removed every day and the area sprayed immediately.

The general care of the patient throughout the treatment is of prime importance. This includes constant supervision and interest on the part of attendants, also forcing of fluids, and a high vitamin and high caloric diet. Portions of burns so situated that they cannot be uppermost and exposed to air must be treated as potentially infected. The eschar must be examined every day for evidences of softening, and when this occurs, the soft part must be carefully removed by picking up with forceps. The exposed surfaces are then sprayed.

Burned patients treated with 1% gentian violet spray do not seem to feel bad. Except for the preliminary shock, there is no great prostration. Patients are willing and able to take foods and fluid by mouth. The fever, if any, is moderate. There are no evidences of blood changes or of nephritis. In addition, there is no offensive odor, since the burn is clean.

Dr. Aldrich gives case reports of four patients with extensive third degree burns, treated at the Boston City Hospital with the 1% gentian violet spray method. One of these was a burn that extended over 1-3 of the body. This patient lived. Another patient with a burn over 3-5 of the body lived 84 days, and finally died from a decompensated heart.

Dr. Aldrich states that the credit for conceiving both the infectious theory in the symptomatology of burns and also the gentian violet treatment, belongs to Dr. W. M. Firor of Johns Hopkins Hospital, who delegated the privileges of publication to Dr. Aldrich.



A TOM KANE DISPLAY IDEA

For some time, Tom Kane, Eastern Mainufacturing Company's artist-extraordinary, has been concerned over the need for striking bulletin displays in out-of-the-way, dark areas in the mills. Such locations as shaft alleys, coal bunkers, boiler tops, basements, etc. offer hazards, yet the circumstances defeat the ordinary display.

Out of his ingenuity he has designed the illuminated display shown above and a considerable number are now in use at Eastern's mills. The above sketch illustrates the idea, a poster or home-made warning being inserted between two pieces of glass plus a piece of red cellophane or crepe paper.

These offer tremendous possibilities to the man who appreciates the fact that no warning is so effective as that one flashed immediately in the area of danger and pertaining specifically to the unsafe practice feared. The flasher devices employed oftentimes for the intermittent illumination of Christmas trees and the like can be used most effectively in conjunction with the above.

UNLOADING PULPWOOD FROM STEAMERS

By E. A. Doran

Safety Supervisor, Eastern Manufacturing Co.

(Continued from February issue)

Another danger point is in breaking down tiers. We usually work down five tiers directly beneath the hatchway and after that break down the tiers on either side of this space. This is done by sending several men up onto the wood to hook it down into the loading area and while this is being done the remaining men must stand back out of the way until sufficient wood is down for their present need. This is a necessary safety precaution as the wood oftimes skids or tumbles in all directions. When the wood previously knocked down has been loaded and hoisted up the operation is then repeated.

Another outstanding hazard that demands the constant attention of the foreman is that of inexperienced men. We try to engage men who have had some experience with a wood hook and pulpwood but sometimes, especially the early part of the season, it is necessary to engage a few men who have had no experience. These inexperienced men must be placed onto the less hazardous jobs, watched and checked by the foreman. The majority of them will learn to be good workmen but occasionally it is for the best interest of both the Company and the man himself for the foreman to tell him not to return the next time and thereby save that man an injury. Another factor of this same type is the winchman. He is the key to much safe work or perhaps some accidents. There are usually several men in the ship's crew who alternate at the winches; they sometimes neither speak nor understand our language very well. These men should be closely watched by the foreman to see if they thoroughly understand your methods and handle their loads in the satisfactory manner.

A point which may easily be neglected but which our supervisors were alert to recognize is the factor of fatigue. Working in the hold of a steamer on a hot, sultry summer's day surrounded by metal and pulpwood—both of which draw and hold the heat—will fatigue a man much sooner than doing the same laborious work in the open and a man's fatigued condition may be just the difference between an injury or no injury. Our foremen often call a short rest period to give the men a chance to recover their physical and mental capacities.

Another practice sometimes tolerated or even encouraged by foremen in their desire for lower unloading costs is unnecessary haste or competition between crews to see who will turn out the most wood. This has been found to be inefficient and that a more steady and well supervised method is far more efficient and less dangerous in the end.

The last but by no means least important factor is that of inspection of rigging and other unloading equipment. Generally

speaking on this point we keep all equipment under constant inspection. The ship's rigging is given periodic inspection by the foremen as well as observation each trip and besides this we send two millwrights onto the steamer each trip to inspect and repair such equipment as racks, platforms, aprons and any other equipment they see in need of attention. The chains are most carefully watched and any that look suspicious are immediately sent to the blacksmith shop and another put in its place.

The Eastern Manufacturing Company feels very proud of the good performance done at South Brewer during the past season and while our Lincoln and Orono mills outdid the South Brewer mill in accident prevention for the year, we feel that this work of unloading 29,500 cords of pulpwood from steamers and booming, stacking and sluicing it into piles together with 8,500 cords of pulpwood delivered into our booms by small vessels, with only one lost-time accident, was the outstanding safety performance of the Company for the year. The work was carried on under the leadership of F. H. Lindsay, Mechanical Supt., and under the direct supervision of F. A. Gilman, foreman of unloading, and P. J. Pooler, foreman of booming, stacking and sluicing into piles. To these men the Company extends its compliments for a difficult task well done.

A STITCH IN TIME—

A worker, equipped with special cleaning tools such as obviated the necessity of passing under guard rails, was found dead beneath a line shaft. Apparently he had finished cleaning, put his equipment away and was en route to his locker when he saw a bit of waste material inside a guard rail and under a shaft. Temptation prevailed and he became engaged, to meet his death.

This instance teaches that complete guarding is necessary and constitutes safety's primary defense. This in itself is not sufficient, needing the support of secondary defenses such as an ever-dominant safety consciousness contributes. When temptation whispers "do it", an inherent caution should function to twice as forcefully remonstrate "don't do it". From everlastingly selling caution to the individual comes safety's best weapon, a thought of safety that prevails over all temptations.

Employee stopped loom to clean and when so engaged a fellow employee started it, catching cleaner's arm between lathe and magazine. Multiple lacerations. The remedy is a positive locking device and its invariable use.

Dinker used for cutting soles repeated with usual results to hands. Constant maintenance of mechanism, proper technique when handling die and non-repeat appliances are indicated,

Worker was ripping piece of lumber when it kicked back, striking worker in face. Man was wearing glasses which were broken, throwing glass in eyes. A properly-designed splitter, kept close to teeth of saw and shatter-proof cover-all goggles for such operators (who wear spectacles) as well as an approved guard, pay wonderful dividends.

THREE MINUTE CHATS WITH FOREMEN

(Bill Brown, a foreman in a Portland plant, writes a note to his hunting pal, Tom Jones, foreman in a Bangor plant.)

Dear Tom:

Well, Tom, it won't be long now before the cry "ice is out" is heard. All my crews are developing a far-away look over a little patch of green grass near the Office Building and I confess I spent Sunday in the attic overhauling my gear. How about the week-end of April 8th?

We've been swapping considerable comment on safety lately and to be frank I've got an entirely new slant on the matter. When you and I worked in Boston in the old days we used to put the "razzberry" on such ideas, but like shop practice things have changed.

Don't buy that new hat I won from you at Moosehead for my head is swelling badly! I saved a man's life yesterday. Tom, it was dead easy! So don't buy the hat yet—the back-slapping, letter from the President and tearful thanks of a wife and two blue-eyed youngsters will ruin me yet.

The safety man circulated a copy of a safety bulletin recently and because we are getting more and more conscious here of our responsibilities as supervisors, I read it. (Remember when we used to heave such stuff into the waste basket?) In this little pamphlet I saw a design for a safety belt that was downright clever. So I sat back in the swivel-chair, puffed hard on the old pipe—and thought of three jobs my boys do that neded such protection.

Then, thank God, I ORDERED SOME MADE AT ONCE, calling twice a day until I got them. Then I posted an order and knocked the crews off five minutes early to tell them when and where these belts must be used if they wanted to work for me.

No further thought was given them and several weeks went by uneventfully. I thought some of the boys had a peculiar air about them yesterday but only last night did I tumble to it. Joe Bolton, painter, while scraping overhead steel structures preparatory to painting, became dizzy shortly after lunch time and fell—the length of the belt rope! No wonder my boys had a strange light in their eyes, is it!

Trace it—a little good-will—a Bulletin—an idea—prompt action — Joe — my neighbor of twenty years — alive and swinging the dinner pail this gorgeous spring morning.

Suppose I had listened to the urge "not much need of a belt" or the complaints of Joe himself as he pointed to a life-time of aerial work—suppose I had decided "No" instead of "Yes"—suppose I had said to myself "TOMORROW—MAYBE!"

Last night there was a knock on my door and Joe's wife and two youngsters stood there. He had told them the story—a story of a life-time of chance-taking and of a safety belt worn only because he knew he had no choice. They wept as they haltingly thanked me for saving their bread-winner. Tom, I'm for SAFETY in a big way even if it did take fifty years for the Big Idea to seep into my thick head.

Enough of that. I couldn't resist temptation and bought a new fishrod recently—still have it here at the shop waiting to sneak it into the house! Remember—April 8th!

Sincerely,

BILL.

EMPLOYEES' SAFETY CREED

"I believe in Safety because the loss of my ability to labor means suffering for those I love most on earth; it leaves to the mercies of a more or less indifferent world those whom every workman desires most of all to protect. I believe in Safety because it tends to conserve my ability to labor and that ability is my sole capital; losing it I am bankrupt. I believe in Safety because my safety means the safety of my fellow-workmen. In risking myself I risk others. I believe in Safety because the bread I earn with my own hands is sweeter to me and mine a thousand times than charity in any form."

Courtesy of National Safety Council