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PROCEEDINGS

OF THE

National Safety Council

TENTH ANNUAL SAFETY CONGRESS



Held at the
State House
Boston, Massachusetts
September 26-30
1921

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National Safety Council

168 North Michigan Avenue, Chicago

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WEDNESDAY MORNING SESSION

Chairman Shaw called the meeting to order. Mr. Pefferly was the first speaker.

ELECTRICAL HAZARDS AND PROPER INSTALLATION OF EQUIPMENT

W. J. PEFFERLY, DISTRICT SALES MANAGER, SQUARE D COMPANY, DETROIT, MICH.

From time to time you have seen data on electrical fatalities which on their face looked rather out of proportion, but we are nevertheless free to admit that the electrical hazard is rapidly taking the place of the mechanical hazard, such as gears, belts, etc. Therefore it should be one of the first attacks of the safety engineer.

Why is electricity, when not properly installed and safeguarded, a more dangerous hazard than machinery? The eye and the brain work in harmony. The instant the eye observes an object in motion, such as a gear or a belt, the brain impels the feeling of fear and caution. With electricity, that invisible force, there is no motion; the distributing installation, control apparatus, etc., look so harmless. How can we overcome this motionless hazard? Were it possible for us to inject the fear of electricity into the minds of the people who come into our plants, in such a manner as a child is taught to keep away from fire, and could the same watchful eye be placed over these factory employees as a mother holds over her child, maybe safety precautions would be unnecessary. That, however, is one of those things "that never happen."

Even the turning gears, with their warning sounds claim their proportion of victims, so our only recourse is the proper installation of electrical apparatus, and at that, the best and most practical obtainable.

HIGH TENSION ELECTRICAL CURRENTS

By high tension we refer to circuits of over 600 volts. The hazard of these high voltages is recognized by almost everyone. I say "almost" as there are still a few cases where an electrical man considers these voltages to be harmless. Any man, however, trained or untrained, is apt to slip or lose his balance while working on this equipment; the result is easily conceived.

Although the majority of exposures to this high voltage are among employees of lighting, power, and railway companies, we cannot overlook the fact that we have some similar conditions of our own. The average industrial plant today buys electrical current from central stations, having it carried into the factory as high tension, and then transforms it into low tension voltages, ranging as operative requirements demand.

In the majority of cases, as should be in all cases, we visualize our high tension equipment such as transformers, oil switches, lightning arresters, etc., as being installed in an isolated out-buildng, known to the electrical man as a sub-station or transformer house. Although we provide that

only thoroughly experienced electrical men have access to this sul station, we cannot let this prejudice us against supplying safety precat tions; experienced men are not absolutely immune from accident.

I have seen cases where the engineer when designing a transforme house thought too much of a compact and neat layout, forgetting th fact that at one time or another it would be necessary for the men t repair certain apparatus, thus requiring the repairmen to use extrem care to avoid coming in contact with any live parts.

I have also seen cases where this apparatus such as the disconnectin switches, lightning arresters, etc., were left without any screen pr tection whatever. Our remedy is to allow sufficient room in back of tl board as well as in the front, and the entire outfit should be enclosed heavy wire screening. Heavy rubber matting should be placed over tl entire area of the floor within the enclosure. In some plants the trar former house is used as a ware-room for storing old material. This another condition that should be eliminated in considering safety.

LOW TENSION CURRENTS

Our greatest hazard in the factory is low tension distribution. It often contended that a voltage is less than 600 is harmless and that can be taken across the fingers without causing any appreciable dama This may be true when surrounding objects are perfectly insulat Should the person in question be standing in a grounded condition, t shock is sufficient to cause death. It is agreed that one-half an amp passing through the body is sufficient to prove fatal. Should a pers come in contact with a live wire or switch accidentally, it is more to prove fatal than if the contact were made purposely. As an exampl suppose a revolver is discharged in a room and you have been previou warned. The shock is not as noticeable as if you had not been warn The nervous system is set ready to receive the impulse. If the revol is discharged without a warning, your heart would miss a beat or t Now if this bodily effect is produced by a sudden shock or noise, w will be the condition of the body to withstand an electrical current p ing through it, after being rendered in a frightened condition?

SWITCHBOARDS

The average designing electrical engineer puts his greatest pride i highly polished switchboard. He claims that this is one way in wh he can show a quality job. I recommend a dead front board, exposing live parts. Although it does not show the highly polished copper, fact remains that it is 100 per cent safe. I have built many dead f switchboards with safety switch units. This makes an attractive swi board and has many advantages not offered on the open board. All wi is concealed within the switch cabinets and troughs placed on the bac the board. In this way we can save space and still maintain safe w ing conditions.

Where an open board is already installed, we should make condit such that accidental exposures will be reduced to a minimum. open front board should be protected by a stout screen, extending s

feet above the floor level. Heavy rubber matting should be placed within the enclosure.

WIRING DISTRIBUTION

In every electrical installation there is always a small amount of leakage, and a slight grounded condition always exists. This is more apt to be the case on open work than in a conduit system, being caused by vibration of the building and gradually breaking down the insulation on the wires at the supporting points. To remedy this, all wires should be placed within a steel casing or conduit and especially so where subject to mechanical injury.

SWITCHES

In some factories I have seen some of the best conduit installations ever brought to my attention. They were jobs of which any electrical man could have been proud. But after going to all this labor and expense of putting in conduit over the entire system, the factory owner installs at each control point a contrivance known as an open-knife switch placed within a service box or steel cabinet. The folly of this installation can readily be seen, as the operator, whenever he desires to start or stop the motor has to reach inside the box and expose himself to the copper switch jaws. Now why place the wire in conduits, at a large expense, when the switch is exposed; the switch is the point that must be operated and is the point of danger? This is an example of "Penny wise and pound foolish" administration.

The installation of safety, exterior-operating switches is a remedy. These switches should be so marked as to indicate whether the switch circuit is closed or open. Provision should be made for locking the box "closed" and also for locking the switch in the "off" position. This latter precaution taken, should repair men be working on the line or on the machine which this switch controls, they can lock the circuit "open" without danger of it being "closed" by any one other than the operator in charge.

SWITCHES AHEAD OF COMPENSATORS ON MOTORS 7½ H. P. OR OVER

It is contended by some electrical men that the compensator or auto starter controlling motors of this size is both a starter and a switch. This contention is all wrong, as the Board of Underwriters specifically states that each motor with its starting device (the compensator being the starting device) shall be controlled by a switch which disconnects all wires and is located within access to the operator. This is a necessary safety precaution, as it gives the operator two points for control. The compensator is a complicated mechanism and is more apt to break down than a simple disconnecting switch. Another feature of an installation of this kind, is that it permits a repairman to work on the compensator with the current off.

FUSE PROTECTION

Too much cannot be said on this subject. You may go into some of the best electrically equipped plants and find that fuses have been "padded" or circuit breakers set far out of adjustment. This is done because the

particular circuit is grounded or overloaded, and the "padding" is the result of carelessness in not having the real trouble remedied. It may be the work of some machinist to enable him to overload a machine and increase his production. He does not realize that he is damaging the machinery and increasing the possibility of fire by exceeding the current carrying capacity of the electrical wiring.

In one plant that I visited every circuit fuse was replaced by a strip of bare copper wire. When I questioned the superintendent, his reply was that he had had so much trouble with fuses blowing on account of fluctuating voltages that he was forced to "pad" and rely on the primary fuses of the transformer to give him protection. Three weeks later he called me on the 'phone and told me that a safety switch controlling a 100 H.P. three-phase motor had broken down; he emphasized the fac that one of the primary fuses had blown and he saw no reason why the switch should break down. He stated that the operator attempte to start this particular motor by throwing in the switch and cutting ou his control resistance, but the motor would not start, so he pulled th switch, without cutting in the resistance again, with the result that th switch broke down. The flash, however, did not injure the operator, a the cabinet door was locked shut. It thus took an accident to arous the superintendent's attention to the dangerous condition in his plan and I called on him again to explain that the primary transforme fuses are required to carry the electrical load of the entire plant, an when the one primary fuse on a three-phase delta system "blew" th two phases were "open circuited" and in this particular case, the 100 h. motor had a dead-short on the one remaining phase of about 2,000 ampere What do you think would have been the possibility of the operat escaping alive if he had come in contact with this current? This merely an example to prove the value of safety switches and of keepi the cabinet doors locked.

Our remedy for this "padding" ill which seems to be the indoor spo for the average person who knows very little about electricity, is to ha a thoroughly experienced man in charge of this important phase of el trical safety. By having distribution circuits fused with the pro fuses and keeping circuit breakers adjusted to the minimum required carry the load, we are giving the victim a chance, as when either of t above "blow", the circuit is opened.

FUSES ON ALL MOTORS OF FIVE HORSE POWER OR LESS, STARTING DIREC ON THE LINE

A starting switch should be used which provides for a starting an running fuse. The current required for starting is 100 per cent grea than the current required for running. Start is, therefore, made on fuse; after the motor works up speed it throws over onto another f half the capacity of the starting fuse.

EXTENSIONS AND DROP CORDS

Avoid as far as possible the use of extensions and drop cords. Sh these be absolutely necessary, use only the best reinforced cord. T

should not lie on the floor, as some object running over them would break down the insulation. Avoid the use of brass sockets as they often ground and cause serious burns if the person is standing in a grounded condition. The socket used on an extension should be a porcelain shell socket, having no exposed live parts and equipped with a wooden handle.

PROTECTION ON MOTOR AND ON OTHER EXPOSED CONNECTIONS

Careful consideration should be given all motor leads, compensator leads, etc., having exposed connectors. These should be well taped with rubber and friction tape, thus lessening the possibilities of the friction tape alone becoming saturated and causing a leakage.

ELECTRICAL DEPARTMENT

An industrial plant may be equipped electrically in the best possible manner, but some member of the electrical department may put in a temporary job or use an extension while he is working on a job, with a cock-sure idea that the work is only temporary or that he will be the only person to handle this "jumble." As safety men, we should do everything in our power to prevent this.

THE ELIMINATION OF GROUNDED CONDITIONS

As we all know, damp conditions usually exist at one place or another in all industrial plants: especially if the floor is located below ground level. Environments of this kind are ideal conditions to produce a shock sufficient to cause death to a person coming in contact with a live electrical circuit.

The possibilities of a person receiving a fatal shock under these conditions can be greatly reduced by the grounding of all dead-metal parts on the electrical equipment. By dead-metal parts we refer to conduit switch cabinets, motor frames, etc. As the resistance of the body is far higher than that of a metallic circuit the current passing through the body will be almost nil. A ground protection not only protects the operator from receiving the majority of the shock, but if any live side of the circuit should become grounded, the current will pass to the ground and if the circuit is fused to the right capacity, it will cause the fuses to blow, which is the signal of a condition which must be remedied. Ground wires should be the same size as the circuit wires and should be preferably grounded to the water system at the nearest point where it enters the building.

Our responsibilities are getting larger every day, as the use of electricity is becoming more extensive. In closing, let me warn you of the greatest of all hazards, "procrastination." By making safety alterations today, you may save a life tomorrow.

ELECTION OF OFFICERS

MR. CARSON: The members of the nominating committee nominate Mr. August L. Kaems, Safety Engineer for the Simmons Company, Kenc-

sha, Wis., for chairman; Mr. E. F. Blank, Safety Director of the Buick Motor Company, Flint, Mich, for vice-chairman; and Mr. M. K Averill, Insurance Manager for Dodge Brothers, Detroit, for secretary.

(It was voted, upon motion duly seconded, to adopt the report of the nominating committee.)

DISCUSSION

MR. SIMPSON: Many of our machines are equipped with a two-wire cutout push button at the right hand of each operator. In case anything is caught in the machinery, all you have to do is to push that cut-out switch; or it can be stopped by a compensator; also at your distribution point, there is your knife-blade switch. On 550 volt A. C. currents we use the oil compensators.

MR. KAEMS: The disconnecting switch is really a minor point in the installation, as I see it. The important part is to have satisfactory compensators; because if you don't have them, no safety switch is going to give you the protection you need. The function of the safety switch is to disconnect your compensator which is your real working switch in case of trouble. Safety switches are disconnecting switches, not operating switches.

MR. SIMPSON: We have found it advisable to place metal cages over motor commutators. In one case, a piece of waste slid off the top of the motor, and went into the rotator. A fellow grabbed for it—

CHAIRMAN SHAW: We require on 440 volts that every operator go through a physical examination to see if his heart is O. K.

MR. HAWES: Every person in the country should be thoroughly trained in the prone pressure method of artificial respiration. We had a fatality in one of the plants we carry; the man was breathing and still alive when they shook him loose from the current, but died before they could get him into the first-aid station. Had the man who found him immediately started artificial respiration, doubtless the victim would have lived. The Edison Company in Detroit had one case that I know of they saved the life of a man who had come into contact with 2,200 volts

FIRE PREVENTION

T. ALFRED FLEMING, SUPERVISOR, CONSERVATION DEPARTMENT, THE NATIONAL BOARD OF FIRE UNDERWRITERS, NEW YORK CITY

For years we have been content to accept figures involving life loss from fire as approximately 5,000 per year. Even this was appalling, but carefully tabulated statistics show that last year nearly 15,000 persons were burned to death and approximately 20,000 injured, a large percentage of whom were injured permanently and made a public charge. A classification of these losses shows that over 70 per cent are women and children of school age and under. This shows that the home and school have been neglected in our great scheme of safety education. It also shows the effectiveness of the general campaign of safety in the shop and factory.

Coincident with this loss of life, the destruction of property dur-

Public Utilities Section

September 27 and 28, 1921

C. E. MORRISON, Chairman
Vice-President, Utilities Mutual Insurance Company, New York City

J. F. NAYLON, Vice-Chairman
New York Telephone Company, Newark, N. J.

J. J. O'CONNOR, Secretary
People's Gas Light and Coke Company, Chicago

IN ATTENDANCE AT THE PUBLIC UTILITIES SECTION MEETINGS

ARTHUR H. ABBOT (Manufacturers' Agent, High Voltage Equipment)—
Arthur H. Abbot, Boston.
ALABAMA POWER COMPANY—
W. R. Loyd, Birmingham, Ala.
AMERICAN ENGINEERING STANDARDS COMMITTEE—
P. G. Agnew, New York City.
AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS—
Wm. McClellan, New York City.
AMERICAN TELEPHONE AND TELEGRAPH COMPANY—
W. P. Elstun, New York City.
BELL TELEPHONE COMPANY OF PENNSYLVANIA—
A. B. Detwiler, Philadelphia.
M. L. Lafferty, Philadelphia.
Jno. Bailey, Philadelphia.
BLACKSTONE VALLEY GAS AND ELECTRIC COMPANY—
Harry Burnham, Pawtucket, R. I.
Warren Haskell, Pawtucket, R. I.
P. F. Hodgkins, Pawtucket, R. I.
E. E. Nelson, Pawtucket, R. I.
Gardner Rogers, Pawtucket, R. I.
W. L. Cheney, Woonsocket, R. I.
A. L. Cole, Woonsocket, R. I.
Wm. L. Curtis, Woonsocket, R. I.
J. G. Fitzgerald, Woonsocket, R. I.
J. M. Hawes, Woonsocket, R. I.
E. L. Milliken, Woonsocket, R. I.
F. K. Simmons, Woonsocket, R. I.
BOSTON ELEVATED RAILWAY COMPANY—
Matthew J. Curtin, South Boston, Mass.
G. M. Tompson, Jr., Charlestown, Mass.
BUFFALO GENERAL ELECTRIC COMPANY—
J. C. Van Vleet, Buffalo, N, Y.
BUREAU OF SAFETY—
Samuel H. Reid, Chicago.
Charles B. Scott, Chicago.
CHATTANOOGA RAILWAY AND LIGHT COMPANY—
H. B. Whiteman, Chattanooga, Tenn.
COMMONWEALTH EDISON COMPANY—
C. H. Davis, Chicago.
A. B. Gates, Chicago.
Homer E. Niesz, Chicago.
CONNECTICUT LIGHT AND POWER COMPANY—
C. A. Penrose, Waterbury, Conn.

CONSOLIDATED GAS COMPANY OF NEW JERSEY—
Harold E. Mason, Long Branch, N. J.
C. D. Snyder, Long Branch, N. J.
DETROIT EDISON COMPANY—
George Opp, Detroit.
EASTERN LAND COMPANY—
William D. Lancaster, Boston.
EASTERN MASSACHUSETTS ELECTRIC COMPANY—
A. T. Throop, Salem, Mass.
H. G. Jenks, Salem, Mass.
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K. E. Adams, Boston.
O. B. Benson, Boston.
Samuel C. Clough, Boston.
William A. Coolidge, Boston.
L. D. Gibbs, Boston.
Herbert W. Moses, Boston.
Charles A. Rick, Boston.
W. G. Small, Brockton, Mass.
Daniel O'Neil, South Boston, Mass.
Frank W. Philbrick, Quincy, Mass.
Frank R. Chase, Somerville, Mass.
ELECTRICAL WORLD (New England Edition)—
Howard S. Knowlton, Cambridge, Mass.
ELECTRIC LIGHT AND POWER COMPANY OF ABINGTON AND ROCKLAND—
Geo. W. N. Clark, Rockland, Mass.
George E. Philbrick, North Abington, Mass.
Arthur H. Robbins, North Abington, Mass.
EMPIRE GAS AND ELECTRIC COMPANY—
E. R. Dobbin, Geneva, N. Y.
FALL RIVER ELECTRIC LIGHT COMPANY—
D. S. Owler, Fall River, Mass.
Howard A. Stanley, Fall River, Mass.
FITCHBURG GAS AND ELECTRIC LIGHT COMPANY—
A. G. Neal, Fitchburg, Mass.
Frank D. Powers, Fitchburg, Mass.
Edward B. Ryan, Fitchburg, Mass.
W. E. Vandell, Fitchburg, Mass.
GENERAL ELECTRIC COMPANY—
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J. A. Dalzell, Lynn, Mass.
Z. N. Laird, Lynn, Mass.
HAVERHILL GAS LIGHT COMPANY—
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Joseph H. Cook, Haverhill, Mass.
George Jones, Haverhill, Mass.
W. J. LeBlanc, Haverhill, Mass.
G. E. McCaffrey, Haverhill, Mass.
Timothy Moynihan, Haverhill, Mass.
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John J. Neagle, Haverhill, Mass.
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INDUSTRIAL ACCIDENT PREVENTION ASSOCIATION—
R. B. Morley, Toronto, Ont., Canada
INTERNATIONAL HARVESTER COMPANY—
W. E. Warth, Chicago.
KEYES, JOHN T. (Insurance Broker)—
John T. Keyes, Dorchester, Mass.
LACLEDE GAS LIGHT COMPANY—
C. Howard Stewart, St. Louis.
LIBERTY MUTUAL INSURANCE COMPANY—
S. E. Whiting, Boston.
LYNN GAS AND ELECTRIC COMPANY—
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John H. Curtin, Lynn, Mass.
Harold M. Lamper, Lynn, Mass.
G. C. Nichols, Lynn, Mass.
Ovan A. Patten, Lynn, Mass.
F. J. Phillips, Lynn, Mass.
R. E. Roberts, Lynn, Mass.
W. H. Varney, Lynn, Mass.
MALDEN AND MELROSE GAS LIGHT COMPANY—
R. S. Carter, Malden, Mass.
MACLACHLAN, WILLS (Consulting Engineer)—
Wills Maclachlan, Toronto, Ont., Canada.

NEW BEDFORD GAS AND ELECTRIC LIGHT COMPANY—
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NEW ENGLAND POWER COMPANY—
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H. F. Lovering, Worcester, Mass.
P. L. Paterson, Worcester, Mass.
NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY—
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W. F. Gowdey, Springfield, Mass.
Walter T. Hannigan, Boston.
D. R. Hawley, Boston.
H. A. McCoy, Boston.
F. E. Tarr, Boston.
C. N. Tasker, Springfield, Mass.
NEW YORK EDISON COMPANY—
Wm. Darlington, New York City.
NEW YORK AND QUEENS ELECTRIC LIGHT AND POWER COMPANY—
W. P. Strickland. Long Island City, N. Y.
NEW YORK TELEPHONE COMPANY—
F. M. Downey, Newark, N J.
J. F. Naylon. Newark, N. J.
NORTHERN INDIANA GAS AND ELECTRIC COMPANY—
A. O. Mitchell, Hammond, Ind.
PENNSYLVANIA WATER AND POWER COMPANY—
Alexander E. Bauhan, Baltimore.
PEOPLES GAS LIGHT AND COKE COMPANY—
Ernest S. Beaumont, Chicago.
PHILADELPHIA ELECTRIC COMPANY—
B. Frank Day, Philadelphia.
H. B. Harmer, Philadelphia.
H. C. Lucas, Philadelphia.
PITTSBURGH RAILWAYS COMPANY (Duquesne Light Company)—
C. G. Rice, Pittsburgh.
PROVIDENCE GAS COMPANY—
C. P. Buddenhagen, Providence, R. I.
PUBLIC SERVICE COMPANY OF NORTHERN ILLINOIS—
Hugh A. Ptolemy, Chicago.
ROCHESTER GAS AND ELECTRIC CORPORATION—
F. W. Fisher, Rochester, N. Y.
SALEM ELECTRIC LIGHTING COMPANY—
William H. Barnard, Salem, Mass.
Harry A. Cook, Salem, Mass.
H. Kingsley, Salem, Mass.
William P. Verry, Salem, Mass.
SHAWINIGAN WATER AND POWER COMPANY—
Eugene Vinet, Montreal, Canada.
STANDARD SAFETY EQUIPMENT COMPANY—
A. U. Barnes, Newark, N. J.
C. A. Kingsbury, Chicago.
STONE AND WEBSTER, INC.—
R. E. Argersinger, Boston.
W. B. Hopkins, Boston.
R. A. Hopkins, Boston.
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L. O. Waite, Boston.
R. R. Wisner, Boston.
Harry R. Woodrow, Boston.
SYRACUSE LIGHTING COMPANY—
John J. McGraw, Syracuse, N. Y.
THE TEXAS COMPANY—
A. B. Cox, New York City.
THE TRAVELERS INSURANCE COMPANY—
Alfred A. Beckwith, Hartford, Conn.
UNITED ELECTRIC LIGHT AND POWER COMPANY—
Edward W. Gorry, New York City.
UNITED GAS IMPROVEMENT COMPANY—
James F. Conner, Philadelphia.
James B. Douglas, Philadelphia.
R. Burdette Inman, Philadelphia.
UNITED STATES BUREAU OF STANDARDS—
M. G. Lloyd, Washington, D. C.
UTICA GAS AND ELECTRIC COMPANY—
W. J. Duffy, Utica, N. Y.

UTILITIES MUTUAL INSURANCE COMPANY—
R. A. Bloomsburg, New York City.
Charles E. Morrison, New York City.
G. R. Rinke, New York City.
F. B. Van Doren, New York City.
WESTCHESTER LIGHTING COMPANY—
W. L. Brux, Mt. Vernon, N. Y.
WORCESTER GAS LIGHT COMPANY—
Thomas H. Clark, Worcester, Mass.
G. M. Hardy, Worcester, Mass.
George L. Simmonds, Worcester, Mass.
Arthur F. Snow, Worcester, Mass.

TUESDAY MORNING SESSION

THE meeting was called to order by Chairman Morrison at 10 a. m. The reports of the officers and committee chairmen were presented and unanimously accepted.

CHAIRMAN MORRISON: The first speaker will be Mr. Scott.

THE NECESSITY OF THE SUPPORT OF EXECUTIVES IN ACCIDENT PREVENTION WORK

CHARLES B. SCOTT, GENERAL MANAGER, BUREAU OF SAFETY, CHICAGO

(With Apologies to George Ade)

Mr. John Doe familiarly was known as Johnnie to nearly all the citizens of Hickville. In addition to Johnnie's extensive acquaintance he was possessed of more or less but waning political influence within the thriving home town. He was the recent victim of that characteristic misfortune—so common to local political good guys—the political complexion of the municipal administration had suddenly and unexpectedly changed from the brilliant red of his favorite party to the somber tone of the old enemy and he was out of a job. Johnnie's more or less hectic income, from deputy this and deputy that, had ceased and he didn't have a look in at the old pie counter in the city hall. Not only were the semi-regular and persistently sought iron men denied him, but worse than that, his local credit was at low ebb because his bankers (political associates) were also victims of this recent catastrophe. All that was left from the cyclonic upheaval so far as Johnnie was concerned, were old friends, his own gracious mannerism, his lifelong aversion to manual labor, his abhorrence of that sticky feeling which comes from perspiration and his pass on the street car. The future was full of little glooms and big glooms, the old political field looked barren, for women were sowing and harvesting in the field, and modern election machinery did not even leave enough loose grains for sustenance to such as he.

Johnnie had done many good turns in the old prosperous days and thereby had he established that local prestige which had been his halo and his good angel. When he represented the seventh ward in the city council back in the nineties, he had fathered and put through the existing franchise for the Hickville Gas, Electric and Railway Company, and like Policemen O'Brien, whose appointment he secured, the vice-presi-