

*The*

**ADT**

# TRANSMITTER

vol. XX. no. 5 — MAY — 1948





## • LETTERS •

### 'Saved Us Many Dollars'

AMERICAN DISTRICT TELEGRAPH CO.:

In regard to the fire of January 6 at our plant here in Des Moines, we wish to take this opportunity to inform you that the situation was well handled.

In fact, your men were here on the job before the firemen arrived. They opened the doors and prevented breakage in the building. Your system has saved us a good many dollars, on this and other occasions.

I. SHERMAN

Sherman Paper Stock Co.,  
Des Moines, Iowa

### Wonderful Service

AMERICAN DISTRICT TELEGRAPH CO.:

I wish to commend your company and entire personnel for the courageous work they did in apprehending the would-be thief who broke into our premises in the early morning hours of February 3.

We believe that not only are you rendering a service to your clients, but to the general public as well. We are very much pleased with your wonderful service.

SAMUEL FRIED

General Merchandise & Hardware Co.,  
Bridgeport, Conn.

### 100 Per Cent Cooperative

A.D.T. COMPANY:

In reference to a fire in the Federal Trust Building which occurred at 8:30 p.m. on March 6, wish to advise that the service rendered by your organization was very prompt and 100 per cent cooperative.

I received a call at my home at 8:30 p.m. and immediately re-called our telephone pay station in the main hall of the Federal Trust Building. This was answered by your guard, already on the premises, and he was able to give me full details of all that happened, which saved me a trip to the building.

Assuring you of our appreciation of your service,

W. J. FINIGAN

William J. Finigan,  
Newark, N. J.

## A NATION-WIDE ORGANIZATION

The American District Telegraph Company (A.D.T.), founded in 1873, is the only nation-wide organization specializing exclusively in the manufacture, installation, maintenance and operation of electrical supervisory and alarm systems for protection against fire, burglary and intrusion, watchman supervision, etc.

A.D.T. Central Station Protection Services are available in more than 350 cities and towns in the United States. In this type of service the protection system in the subscriber's premises is connected to an outside A.D.T. Central Station which provides continuous electrical supervision, transmits alarms to the fire and police departments and investigates trouble and other emergency signals.

Outside of Central Station areas, A.D.T. installs protection equipment for owner operation, with visual or audible signals within the protected premises and, when desired, direct-wire connections to police or fire departments. In exceptionally large establishments, systems may be installed to operate through owner-operated proprietary central stations on the premises.

Whether the system operates through an A.D.T. Central Station or is of the local or proprietary type, A.D.T. provides periodic inspections, systematic tests and complete maintenance by an organization trained and experienced in this type of work. *Without this specialized attention there is little assurance that any protective signaling system will operate when an emergency arises.*

A.D.T. Protection Services include the following systems:

**SPRINKLER SUPERVISORY AND WATERFLOW ALARM:** Summons fire fighting forces when sprinkler operates. Maintains a continuous automatic check on shut-off valves and other points controlling water supply.

**AERO AUTOMATIC FIRE DETECTING AND ALARM SYSTEM:** Detects fire and summons fire department automatically.

**WATCHMAN SUPERVISORY AND MANUAL FIRE ALARM:** Investigates any failure to signal Central Station. Includes Manual Fire Alarm Boxes to summon the fire department quickly and accurately.

**BURGLAR ALARM:** Automatically detects unlawful entry or intrusion and initiates immediate investigation.

**HOLDUP ALARM:** Summons police in case of attack by bandits and in other emergencies.

Also: Automatic Fire Control for Air Duct Systems; Heating System and Industrial Process Supervision and other miscellaneous supervisory services.

## • EDITORIAL •

### A Quarter-Century of Service

On the back cover of this month's issue we proudly present the first installment of the roster of ADT employees who have completed twenty-five years or more of continuous service.

As of May 31, 1948, there will be 443 wearers of the diamond service emblem, which distinguishes the members of this honored group. The roster includes sixty-five persons retired on pensions after twenty-five years or more of service. Although no longer on active duty, they still are members of the large ADT family.

Owing to the limited space we are able to list only half of the names this month. The second half of the roster will be published next month.

Nearly half of the members of this group of ADT seniors have service records of more than thirty years, including four with fifty years or more, nine over forty-five years, twenty-four over forty years and forty-two over thirty-five years.

Within the next five years the ranks of the twenty-five year class will be measurably increased by "graduation" of most of the 380 men and women who now wear the ruby emblem indicative of twenty years of service.

We are justly proud of these constant folks who, throughout twenty-five years or more, have faithfully applied themselves to the worthy work and fine traditions of the ADT organization.

Congratulations and thanks to this quarter-century group, whose energy, loyalty, and splendid example have contributed so much to the organization's reputation and success.

### On the Cover

The dramatic photograph reproduced on this month's cover was taken at the height of a three-alarm fire which roared through the pier of the Curtis Bay Towing Company in Baltimore last month.

Eleven tugs moored alongside were menaced by the flames. Crews of the fire-boat Cataract and the tug F. F. McLain dared death to dart in and out of the teeth of the blaze to free moored towboats and get them to safety. *Inter. News Photo*

**THE A. D. T. TRANSMITTER:** A monthly news-magazine of outstanding events and features concerning fire, burglary and holdup. Published monthly by the American District Telegraph Company, 155 Sixth Avenue, New York 13, N. Y.—R. K. HYDE, Editor . . . Edited and distributed for the information of employees, subscribers and other interested persons. All articles printed are the individual opinions of the authors. To insure delivery of your copy of THE A. D. T. TRANSMITTER each month, kindly notify the editor of any change in address.

# The ADT TRANSMITTER

VOL. XX

MAY, 1948

No. 5

## WAREHOUSE SAVED FROM FIRE

*Stocks Valued at Million Escape Severe Damage in Blaze Discovered by Police as Smoke Sets Off Burglar Alarm*

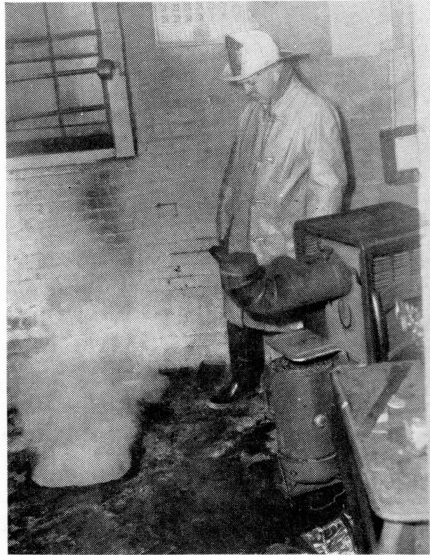
More than a million dollars worth of property and merchandise was saved from destruction at Worcester, Mass., on March 13 as the result of the prompt discovery of an outbreak of fire by police officers investigating an ADT burglar alarm.

The fire was in a 320-foot building which was once the Central Works of the American Steel & Wire Company and now is used as a warehouse by the Lyons Warehouse and Distributing Company who lease space to a number of firms, including M. G. Masnik, Inc., wholesale liquor dealers. A wooden partition separates the Masnik premises from the general storage area.

Two police officers and an ADT guard, investigating an ADT burglar alarm received from the Masnik premises at 6:37 p.m., entered the building and found it filled with smoke. They immediately notified the fire department. The blaze was confined to the basement, but three alarms were sounded and four firemen were injured before the flames were extinguished.

Fire Chief Herbert F. Travers stated that the fire was caused by an overheated oil heater in the warehouse office on the first floor. The heater set the floor ablaze and the embers dropped into the basement, setting fire to material which ignited the floor beams and wooden posts. The fire fighters fought the flames by running hose lines through holes in a loading platform and by dropping cellar pipes through holes cut in the floor.

The burglar alarm which led to the speedy discovery of the fire was caused by smoke which seeped around a door into the Masnik area where it interrupted the beam of an ADT Invisible



*Worcester Telegram-Gazette*

**STARTING POINT** — Chief Travers views spot where overheated oil stove ignited office floor, causing fire that raged in basement for three hours

Ray Device. Central Station operators immediately notified police headquarters which directed patrol cars to the warehouse.

Charles Belovitch, Masnik office manager, praised the work of the firemen and the extra service afforded by the ADT Burglar Alarm System. In a letter to ADT Manager, T. J. Canane, he said, "If the photoelectric unit had not been in operation we would have had a complete loss of our liquor stock and the businesses next to us would have suffered a total stock loss amounting to well over a million dollars."

The loss was estimated at \$20,000, caused chiefly by damage to the building. Goods on the first floor were only slightly damaged.

## HIDDEN HANDICAP

Three burglars who attempted to break into Greenstein Brothers' drug store in Chicago by smashing in an inviting skylight found the odds doubly against them.

When the first of the trio dropped through the opening, his dangling feet tangled up with a protective screen of the Burglar Alarm System, which was about three feet below the opening. As he tried to extricate himself with the aid of his companions, the ADT Central Station flashed the alarm to the police and telephoned Guard Foley who, by a fortunate circumstance, was in a building across the street.

Police officers arrived in about three minutes and found Foley standing guard to prevent the burglars' escape. Climbing to the roof, they corralled all three.

At the police station the prisoners were identified as Robert Burges, age 22, Arthur Daliege, age 23, and William Murphy, age 22.

## NO ESCAPE

A burglar armed with a 12-inch stiletto-type knife and equipped with a kit of burglar's tools was hauled from his hiding place in the store of the Pacific Electric Company, San Francisco, after a two-hour search by police officers who responded early one morning to an ADT burglar alarm.

Two policemen, cruising in a patrol car only two blocks away from the store, received the radio alarm at 1:00 a.m. A minute later they reached the store, just in time to see the intruder's legs disappearing through a window which had been forced open.

Guarding the outside of the building, the officers radioed for reinforcements. The building was entered and searched and the burglar finally was found hiding in a small closet.



## BURGLARY

### WRONG COMBINATION

#### *Well-Planned Scheme to Attack Department Store Safe Fizzles*

A burglar who secreted himself in a West Coast department store on March 25, in hopes of cracking the safe after the store closed for the night, got more than he bargained for.

Waiting until he was sure everyone had left for the night, he emerged from his hiding place, removed a pane of glass in an office partition and made his way to the safe. Opening the door of the innocent-looking wooden cabinet enclosing the safe was easy. Almost too easy—except for the fact that the cabinet was ADT-protected.

A burglar alarm signal was instantly transmitted to the ADT Central Station and police headquarters broadcast the alarm to a patrol car cruising alongside of the store.

The culprit found himself under arrest before he had time to attack the safe. A check of the store revealed that the man had not disturbed anything other than the safe.

### TWIN TIPLERS

ADT Guard Wells thought he was seeing double when he entered the office of an electrical supply house in Kansas City, Mo., a few weeks ago to investigate a burglar alarm received shortly before 11:37 p.m.

In the office he arrested two twelve-year-old boys—twin brothers—who were busily imbibing from a bottle of whiskey. The lads had transmitted an alarm when one of them broke an ADT Burglar Alarm Screen as he crawled through a front window.

Police took the boys to juvenile court where it was revealed they had been "brought in" five times previously on various charges.

### UNLUCKY DAY

A 29-year-old burglar, who broke into the second-story office of the Hunter's Lodge, a cafe in Boston, a few weeks ago, found the hunting not so good—ex-

cept for the Boston Police Department.

Within three minutes after he smashed a window with his fist, sustaining a bad cut in the process, he was taken into custody by officers. The window was protected by an ADT Burglar Alarm Screen, which had been knocked out of place. The ensuing signal, at 1:52 a.m., was immediately relayed from the Central Station to police radio cars in the vicinity.

### FAMILIAR FIGURE

San Francisco police officers needed no introduction to the burglar they found cringing in the office of the Circoستا Scrap Iron and Metal Company on the night of March 29.

Responding to a burglar alarm received in the ADT Central Station a few minutes earlier, they discovered Carl Polson, whom they had met under similar circumstances more often than they could accurately remember.

Just for the sport of it, however, they did ask his name, for names with Polson are as plentiful as his appearances in police line-ups, running the gamut of every nationality including American Indian—as which he calls himself John Blackhawk.

Polson, who has a twenty-three-year record of miscellaneous burglaries and



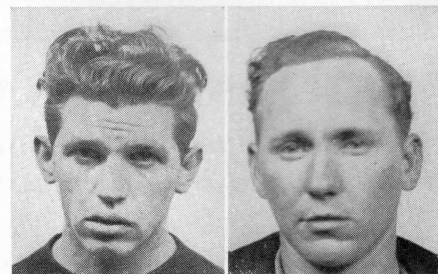
Carl Polson

arrests in seven states, started his criminal career at the age of 13. He has paid innumerable visits of varied durations to a good cross section of our institutions. Needless to say, he is about to become a "guest" again.

### LUMBER MILL LOOTERS

#### *Police Officers Surprise Pilfering Pair Ransacking Office Desks*

Russell Baughman, 24, and Dennis Hanrahan, 26, were captured by Indianapolis police and ADT guards shortly after midnight on March 3, as



Dennis Hanrahan

Russell Baughman

they were in the process of breaking open and rifling desks in the offices of the R. S. Foster Lumber Company.

The men evidently were unaware of the efficiency of the ADT Burglar Alarm System, for they entered the president's private office by breaking through a protected window. After they had forced open and ransacked his desk the pair went through another protected door to the main office. They were making good headway looting more desks when the officers arrived.

In a frantic but futile effort to escape, Hanrahan leaped out of a window. He sustained head injuries which caused him to be hospitalized pending investigation. Baughman put up no resistance and was taken directly to jail.

### HASTY DEPARTURE

Clues, but no culprits—was the situation that confronted police and ADT guards when they responded in less than two minutes to a burglar alarm signal from the American Coffee Co., New Orleans, La., received at 2:14 a.m.

The intruder or intruders, left an overcoat with a lighted flashlight lodged in its sleeve. A paper bag, slipped over an ADT Invisible Ray Device, indicated that they had made an attempt to defeat the Burglar Alarm System, but their efforts only served to betray their presence.

In all probability, the speedy arrival of the police frightened off the pseudo-scientific crooks. Nothing was missing.



## UNLUCKY LEAP

Police of Paterson, N. J., and ADT guards did a good job of routing out a burglar from the warehouse of the Desmond Realty Co. on April 6. But whether they got their man or not remains to be seen.

The answer to this question awaits the recovery of a young man who is hospitalized with a fractured skull and is too weak to be questioned.

When officers answered an ADT burglar alarm received from the warehouse at 3:21 a.m., they found that the five-story building had been entered through a basement window. They immediately started a search of the premises, and discovered that several first-floor desks had been ransacked.

As the officers proceeded up through the building, another officer on guard outside heard a noise in a rear alley. Investigating, he found an unconscious man, who had apparently jumped or fallen from the warehouse.

The injured man was rushed to a hospital where his recovery is being awaited—under police guard.

## FIRE

### SPRINKLERS EFFECTIVE

#### *Waterflow Alarms Call Firemen As Blazes Threaten Dept. Stores*

ADT-supervised sprinklers played a major part in preventing the destruction of thousands of dollars worth of stock when fires broke out in department stores at various points recently.

At the Wolff & Mark Co., San Antonio, a fire in the furniture repair department was kept under control by four sprinkler heads. Fire fighters, summoned by an ADT waterflow alarm, completed the job of extinguishment and shut off the water.

At Toledo, Ohio, fire threatened the department store warehouse of the LaSalle & Koch Company when electric wiring short-circuited. No one was on the premises at the time. A waterflow alarm called firemen who found that the sprinkler system had extinguished the blaze. The water was promptly shut off.

At the George B. Peck Dry Goods

Co., Kansas City, Mo., a fire of undetermined origin in a stock room caused an ADT waterflow alarm, summoning firemen who completed extinguishment with the aid of chemicals.

### SPRAY ROOMS DAMAGED

Air ducts blocked by wooden forms used in building construction contributed to the outbreak of fire on February 25 in a paint spraying room at the plant of the Hammond Instrument Co., Chicago.

Sixteen sprinkler heads fused and effectively controlled the fire until the arrival of the fire department, which had been summoned by the operation of an ADT Fire Alarm Box. Equipment was damaged to the extent of \$1,000.

A fire in a spray booth at the Horton Mfg. Company, Fort Wayne, Ind., resulted in a \$2,000 loss on February 12.

The flames were confined to the booth and were effectively checked by opening of five heads on the automatic sprinkler system. The fire finally was extinguished by use of spray nozzles in the hands of firemen called to the plant by an ADT waterflow alarm.

Due to a frozen post indicator valve, considerable difficulty was experienced in shutting off the water from the sprinkler system after the fire was out.

### INSIDIOUS OUTBREAK

Paint and other flammable materials left by painters in the basement of the Farmers Union State Exchange in Omaha proved a serious threat on March 27.

In the early hours of the morning, a paint-fed blaze, evidently caused by spontaneous ignition, started to spread rapidly throughout the basement. Fortunately, however, the fire reached the wiring of the ADT Burglar Alarm System, causing a signal to be transmitted to the Central Station.

Police, who sped to the premises, discovered the fire outbreak and promptly called the fire department. Firemen found a tough fight on their hands, but they finally extinguished the flames.

### SHOE STORE BLAZE

Firemen summoned to the retail shoe store of N. Hess & Sons, Baltimore, on March 8 found employees fighting a blaze which broke out among boxes of shoes and wooden shelving in a second-floor stock room.

An employee discovered the outbreak at 11:46 a.m. and quickly operated an ADT Manual Fire Alarm Box. Responding firemen promptly took over and completed the extinguishment.

The damage was confined to a single section, with a loss estimated at \$200.



*International*

**FLAMES DESTROY FURNITURE STOCKS** — An employee was forced to drive two blocks to the nearest fire box to turn in the alarm when fire broke out in this block-long warehouse of the William J. Wieland, Inc., furniture company, Baltimore. The blaze started with the explosion of an oil stove and spread rapidly despite the efforts of employees to control it with hand extinguishers



## SPARKS IGNITE SAWDUST

Quick detection of a fire, which started when sparks ignited sawdust on a boiler-room roof, in all probability saved the Brown Graves Company, lumber dealers, Akron, Ohio, from a serious loss on April 8.

The burning sawdust fused a sprinkler head inside the boiler room, causing an ADT waterflow alarm at 6:18 p.m. Two minutes later an employee who noticed the outbreak operated a Manual Fire Alarm Box.

Fire fighters who responded extended themselves to extinguish the outbreak quickly. As a result, the flames were prevented from spreading and there was only a \$200 loss.

## FAST ALARM EFFECTIVE

Prompt operation of an ADT Manual Fire Alarm Box enabled firemen to extinguish a potentially serious fire which broke out recently in a Worcester, Mass., department store.

A watchman discovered the outbreak on the first floor and transmitted the alarm at 2:14 a.m. When the fire department arrived the flames had consumed a table and ignited wallboard around a new elevator shaft.

Owing to new construction, the automatic sprinkler system had been shut off, but the fire fighters were on hand so quickly that the blaze was easily put out with streams from hand extinguishers and a booster line. The loss was held to \$200.

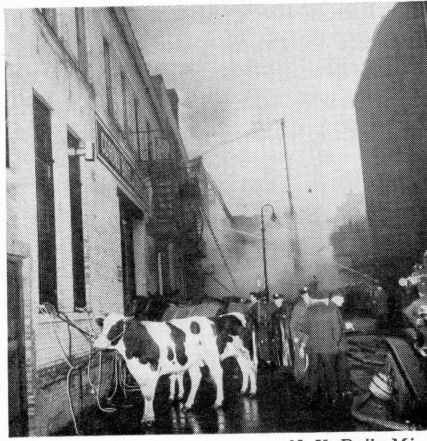
## WATCHMEN

### NOTHING TRIVIAL

#### *Watchman's Ailment Found More Serious Than at First Believed*

An ADT guard, dispatched to a Jersey City, N. J., plant when the watchman failed to transmit his signal to the ADT Central Station at 9:45 p.m. to indicate the start of his patrol, found the man severely shaken up and badly bruised.

The watchman stated that he had sprained his ankle while patrolling the plant. Taking no chances, the guard



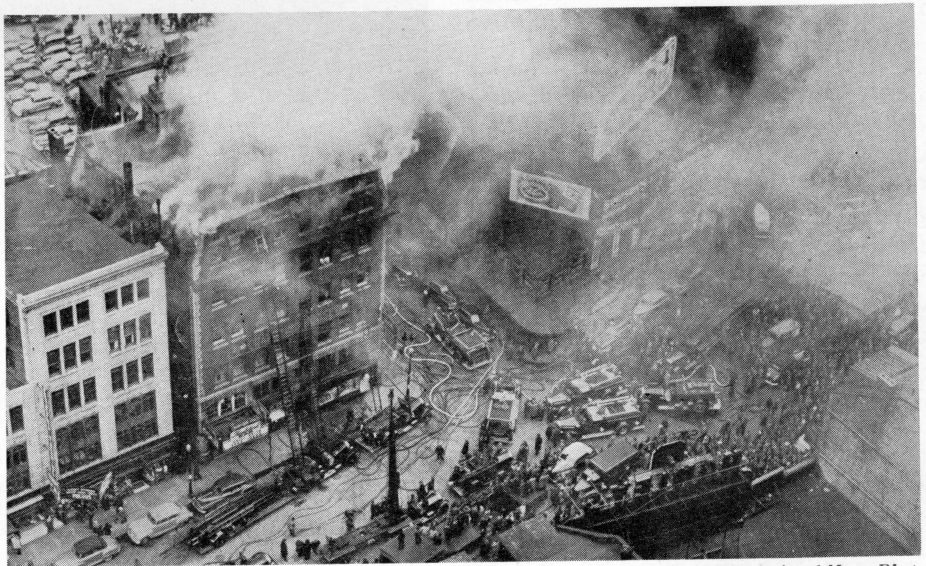
*N. Y. Daily Mirror*

**LUCKY LIVESTOCK**—*These animals and fifty New York City police horses were removed in the nick of time from a stable adjoining a box factory which burned with a loss estimated at \$25,000. The stable was not seriously damaged*

called in the police who immediately ordered an ambulance dispatched from the Medical Center.

Their action proved most wise, for despite the stalwart watchman's protestations, it developed that he was urgently in need of hospital treatment. Doctors expressed the opinion that the man had suffered a slight stroke as he was about to begin his round.

ADT made arrangements for the plant's relief watchman to take over the patrolling of the property for the remainder of the night.



*International News Photo*

**OLD LANDMARK GUTTED**—*Fire apparatus and spectators congest the Scollay Square section, Boston, as flames sweep through the famous old Crawford House. Scores of guests were routed and many others were rescued via ladders and fire escapes. A telephone operator's warning was responsible for saving many lives*

## KINDRED 'SPIRITS'

Two employees of a leather goods plant in an eastern city, whether prompted by patriotism or stirred by less noble sentiments, started an early celebration on a recent holiday.

When the watchman's 12:15 a.m. signal was not received in the ADT Central Station, a guard was dispatched to the premises to investigate. Starting his search of the building, he was astonished to find a cleaning woman reposing in the boiler room, attempting to sleep off the effects of one or two drinks too many.

A further look-see disclosed that the errant watchman was in the same befuddled state in a locker-room on the fourth floor of the building. A substitute watchman of more sober mien was secured to guard the building for the remainder of the day.

## ORGANIZATION

### RETIREES ON PENSION

The Benefit Fund Committee announces the retirement on pension of Ernest Geisenhof who has been employed as an office manager at Ft. Wayne, Ind., for the past seven years. Mr. Geisenhof's service record covers forty-nine years.



## THE ROSTRUM

Devoted to Open Discussion of Protection Problems

### ANOTHER 'ETERNAL TRIANGLE'

#### The Chief Gets Down to Fundamentals in Seeking Support For a 'Remove the Fuel' Drive During Clean-up Week

By PAUL W. KEARNEY

"You gentlemen may not believe it, at my age," began the Chief in his talk at the Chamber of Commerce luncheon, "but I've been mixed up in one of these 'eternal triangles' for some time now."

Somebody in the audience yelled, "Tell us more!" And after the laughter, the Chief went on. "It isn't one of those Mister-and-Missus-and-the-Slick-Chick things, however: it's something much hotter. And much older. It's fire!

"Chemists tell us that fire is like a triangle, with the sides consisting of three important elements: fuel, oxygen and ignition temperature. Any time you put these three essentials together, you have a fire. Take any one of them away and the triangle collapses; the fire goes out.

"For example, I strike a match and touch it to the wick of this candle. Until I strike the match we have only the fuel and the oxygen. As soon as I put the flame to the wick, we add ignition temperature and complete the set-up.

"Now, the simplest way to extinguish this burning candle would be to remove the oxygen. I can do that by putting this inverted glass over the candle. Notice how soon the flame falters—grows weaker—finally goes out. In fire fighting we accomplish this same thing in certain types of outbreaks by the use of foam, which blankets the burning surface and excludes air, or by using carbon dioxide, thus blanketing the fire under a layer of inert gas.

"Actually, all firemen have seen cases where fires in tightly closed rooms have extinguished themselves when combustion consumed the oxygen below the 15 per cent level. In fact, we caught an arsonist that way one time: he sealed up his store so tightly to avoid early detection that the blaze he started turned out to be a dud!"

The Chief then relighted the candle. "Now, a second way to extinguish this blaze is to remove the ignition temperature. For fires in buildings, the method is to cool the burning mass below the combustion point. I can do that by simply squirting a stream of water from this syringe on the wick. The water absorbs the heat; the fuel is chilled; the fire dies.

"Next time you see us working on a big blaze with deck guns and water towers and a dozen hand lines pouring a niagara into a building, remember that this is what we're trying to do: reduce the temperature of the burning fuel. 'A gallon of water for a pound of fuel,' they used to say. Thus, an ordinary 10 x 15-foot bedroom will have a ton of fuel on which a fire can feed—if it's only half involved when we arrive, we'll need three or four tons of water to catch up with it, provided we can put all of that water on the fire—which is seldom possible.

"Incidentally, one of the great virtues of 'water spray,' which is being

used more and more today, is the fact that when water is broken up into small particles, it absorbs considerably more heat than when it is applied in a solid stream.

"Now the third side of this fire triangle is the fuel itself. According to the book, we can extinguish this fire by removing the fuel. As a rule this isn't practical in actual fire fighting—although I've seen firemen work for hours shoveling soft coal out of a building when the bottom of the pile took fire spontaneously."

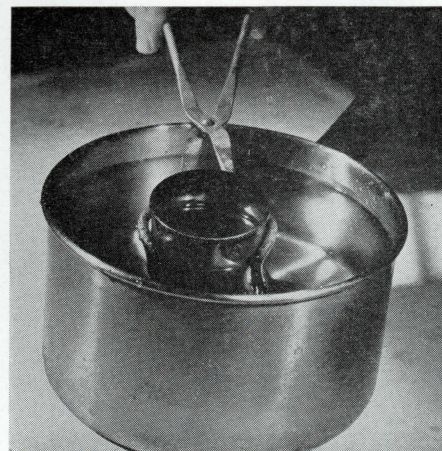
The Chief paused and surveyed the audience. Then he said quietly: "In my opinion, gentlemen, that's *your* job, not ours. We're busy right now with the Spring Clean-up Campaign in which you fellows can take an active part. It's a swell time to remove a whale of a lot of this element of the fire triangle—*before* it gets to be a triangle.

"I needn't tell you that this past winter has been a tough one. But maybe I should remind you that because of weather conditions our buildings are crammed with more trash and junk today than I've ever seen in all my experience. It was tough enough to get rid of stuff that presented a sanitary problem—the other junk was just shoved aside.

"I move you, gentlemen, that we redouble our efforts to make this campaign a 'Remove the Fuel' drive. Let's bust up this Eternal Triangle before we have to do it the hard way!"



**VAPORS IGNITE** — Paraffin wax is heated until it is hot enough for the vapors to ignite. The heat is then removed, as shown in the illustration at the right, to show how fires of some types can be extinguished by the process of cooling the burning substance



**FLAME GOES OUT**—The container is lowered carefully into a pan of cold water to reduce the temperature of the wax. When the wax has cooled sufficiently the flame flutters and goes out, even though the water does not touch the fire as it cools the wax

Three Lions Photos



# A Quarter Century of Service

We are proud and grateful to present, this month and next, a roster of ADT folks who wear the diamond emblem in token of twenty-five years or more of faithful service to their organization and to those whom it is privileged to serve. These men and women symbolize the loyalty, spirit and ability of a great and effective team. Through public tribute to the seniors among them, we are happy to honor all of the members of the ADT organization.

**Akron**  
G. H. ROBINSON, Plant

## Allentown

M. F. MATTHEWS, Oper.  
F. OPLINGER, Oper.  
C. J. RADMAN, Oper.

## Atlanta

B. DALLAS, Oper.  
E. C. HILLE, Oper.

## Baltimore

J. T. ARRINGTON, Coml.  
\*E. L. VOGELMAN, Oper.

## Birmingham

R. E. BROWN, Oper.

## Boston

C. C. BERTSCH, Plant  
A. H. BLAKE, Oper.  
F. S. BRADFORD, Plant  
H. A. BRAGG, Oper.  
J. W. CHAFFEE, Plant  
P. S. DAVIS, Plant  
A. DRAZBA, Oper.  
F. L. DUFFY, Plant  
F. J. FINEGAN, Plant  
\*C. L. FLAGG, Coml.  
\*M. J. FLAHERTY, Plant  
\*R. M. GIFFEN, Oper.  
H. E. PEARSON, Oper.  
R. M. PINEO, Oper.  
\*F. E. PROCTOR, Oper.  
J. W. RAY, Plant  
W. P. RAY, Plant  
A. F. SOUZA, Oper.  
R. E. SULLIVAN, Oper.  
H. G. VERDI, Plant  
J. J. WALL, Plant  
W. R. WHITING, Coml.

## Bridgeport

J. M. BEAUDIN, Oper.

## Brockton

M. N. FISHER, Oper.

## Buffalo

\*J. J. KRUEL, Oper.  
C. F. ROTH, Oper.  
\*W. J. TAGGART, Coml.  
V. YOXTIMER, Oper.

## Burlington

R. T. LEDDEN, Oper.

## Canton

\*W. G. BLISS, Oper.  
R. L. SMITH, Oper.

## Cedar Rapids

L. G. FRUTIG, Oper.  
R. C. HULTBURG, Oper.

## Charleston

G. DENGATE, Oper.  
C. E. EDWARDS, Plant  
W. H. HUGHES, Oper.  
A. P. JONES, Oper.  
R. A. WALLACE, Oper.

## Chicago

E. F. BARTIK, Coml.  
\*C. O. BONDE, Oper.  
\*W. P. BOYLE, Oper.  
\*C. A. CARLSON, Oper.  
L. DION, Oper.  
J. J. DOWD, Oper.  
F. J. EBERTSCH, Oper.  
F. G. EGLINTON, Coml.  
J. W. FISCHER, Oper.  
A. FRANK, Plant  
\*G. W. GAULER, Plant  
E. P. GUERRERO, Oper.  
A. H. HOFELDT, Coml.  
C. M. HOLUB, Oper.  
C. J. KACZMARSKI, Oper.  
E. C. KRIZEK, Plant  
L. LACEY, Oper.  
W. LETCH, Oper.  
L. T. MALLIN, Coml.  
F. H. MARKS, Coml.  
H. L. MOORE, Oper.  
H. W. MULBERRY, Oper.  
A. OHLSON, Plant  
J. F. POLACEK, Oper.  
\*G. R. POTRATZ, Oper.  
C. ROBINSON, Oper.  
G. F. ROBINSON, Plant  
N. ROWE, Oper.  
J. B. RUSTIC, Oper.  
W. T. SALS, Oper.  
E. J. SCHIMMING, Oper.  
F. R. SHEPPARD, Oper.  
G. TRAUTMAN, Plant  
J. H. WOOTTON, Plant  
\*F. G. ZAVESKY

## Cincinnati

W. G. CUPPY, Plant  
H. KAFEL, Oper.  
E. M. MULLALLEY, Oper.  
J. A. MULVANAY, Oper.  
J. E. REIS, Plant  
L. M. SCHLOTMAN, Oper.  
\*E. STECHER, Plant

## Cleveland

T. BLAYNEY, Oper.  
F. E. COOPER, Oper.  
G. E. HECKER, Plant  
G. W. McMANNIS, Oper.  
\*B. SULOFF, Plant  
A. M. WILMAN, Oper.

## Columbus

C. D. NEGLY, Oper.  
C. J. RINGER, Oper.

## Covington

H. FALK, Oper.

## Dallas

B. W. DABNEY, Oper.  
D. M. FISHER, Oper.

## Davenport

C. C. ECKWERT, Oper.  
A. A. KETELAAR, Oper.  
F. LARGENT, Oper.  
H. H. OVERHOFF, Oper.

## Dayton

J. P. SULLIVAN, Oper.

## Detroit

L. AUERBACH, Plant  
\*D. ENGLISH, Oper.  
W. E. LAMA, Plant  
A. L. NERON, Oper.  
F. PERRY, Plant  
W. A. RIEDEL, Plant  
T. WELLINGTON, Plant

## Dubuque

\*F. D. HICKEY, Oper.  
J. O'CONNOR, Oper.

## Duluth

\*A. AMUNDSON, Oper.  
D. J. KRAMER, Oper.  
T. J. MEYER, Oper.  
G. H. PARIS, Oper.

## E. St. Louis, Ill.

R. J. BOWDERN, Plant  
F. E. BURTON, Oper.

## El Paso

C. FIERRO, Oper.

## Erie

W. B. O'HARA, Oper.  
C. M. PRESTON, Oper.

## Evansville

A. A. ANDERSON, Oper.  
J. A. BLACK, Oper.  
A. D. CRENSHAW, Oper.  
G. J. FOLEY, Oper.  
H. M. SCHAICH, Oper.  
M. A. SCHMITZ, Oper.  
H. W. TINDELL, Oper.

## Flint

L. S. BRYAN, Oper.

## Fort Wayne

C. H. BOWERS, Oper.  
W. F. FISHER, Oper.  
\*E. GEISENHOF, Oper.

L. G. MINER, Oper.  
N. F. WIESE, Coml.

## Fort Worth

C. H. FRANKLIN, Oper.  
O. G. MATHEWS, Oper.

## Galveston

R. M. ARMER, Oper.

## Grand Rapids

S. POSTMUS, Oper.

## Green Bay

\*W. R. HOLLIS, Oper.  
G. P. STERK, Oper.

## Hamilton

C. E. WRIGHT, Oper.

## Hartford

A. C. BROWNELL, Plant

## Houston

E. W. BROOKS, Plant  
A. S. WILHOYTE, Coml.

## Indianapolis

E. I. JOHNSON, Oper.  
G. SUNDLING, Oper.

## Jackson

J. W. HOFFERTH, Oper.  
\*W. HOWARD, Oper.

## Jersey City

\*J. P. COCHRANE, Plant  
L. GINSBURG, Oper.  
J. A. SMITH, Plant

## Kalamazoo

E. G. McMAHON, Oper.

## Kansas City, Mo.

\*A. BRAY, Oper.  
\*T. W. COLEMAN, Oper.  
C. C. NOEL, Plant  
P. C. SHERER, Coml.  
G. E. THELEN, Oper.  
N. M. TRUE, Oper.

## Kansas City, Kans.

M. HEGARTY, Oper.  
J. A. KEUCHEL, Oper.  
M. MAHONEY, Oper.

## Lincoln

R. D. HAWBAKER, Oper.  
E. A. MCKEE, Oper.  
\*J. B. PEMBERTON, Oper.

## Long Island City

J. BARBARITE, Plant  
R. BARBARITE, Plant  
S. BUZNITSKY, Oper.

R. HARRISON, Oper.  
L. J. LEVIEN, Plant

\*A. PETERSON, Oper.  
G. R. RAU, Plant  
A. W. STRAUB, Plant

## Los Angeles

H. M. BRANDES, Oper.  
P. BURGESS, Oper.  
K. DE SCHANE, Coml.  
T. DEVER, Plant  
F. J. DUEFRENE, Oper.  
H. F. KINNEAR, Oper.  
F. L. SMITH, Oper.  
V. S. UTZ, Oper.

## Louisville

F. W. LEIST, Plant  
F. W. LEMPER, Plant  
E. T. OSBORNE, Oper.  
E. REAGON, Oper.  
E. TURNBULL, Oper.

## Macon

L. R. DUBLIN, Oper.

## Mansfield

R. G. CLARKE, Oper.

## Memphis

H. B. DANIELS, Plant  
J. B. JOHNSON, Oper.

## Milwaukee

E. KOWALKOWSKY, Plant  
A. H. NELSON, Plant  
F. J. O'CONNOR, Oper.  
\*J. J. O'KEEFE, Oper.  
\*G. VANHAUSER, Plant

## Minneapolis

G. G. BERQUIST, Plant  
W. E. CRAIG, Plant  
H. C. DAVID, Oper.  
\*A. NERGORD, Plant  
J. D. SPALDING, Plant

## Moline

L. INGWERS, Oper.  
W. LE POIDEVIN, Oper.

## Muncie

W. M. BURTON, Oper.  
J. D. COONS, Oper.  
H. H. FROELKE, Oper.  
D. VLASKAMP, Oper.

## Muskegon

C. R. LEACHMAN, Oper.  
W. SIMONSON, Oper.

## Nashville

H. H. BAILEY, Oper.  
J. H. FITE, Oper.  
C. F. MCCOOL, Oper.  
C. G. ROTHY, Plant

\* Retired on Pension.

