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FIREMEN

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Refinery Fire in Mexico City — *see page 7*

NATIONAL FIRE PROTECTION ASSOCIATION
68th year

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NATIONAL FIRE PROTECTION ASSOCIATION
68th year

(Why the big swing to Mack diesels in firefighting equipment?)

1.
Diesel means faster, more positive starts.

2.
Diesel pumpers can pump 35% more hours than gasoline pumpers with same fuel tank capacity.

3.
Diesel requires a minimum of maintenance – no distributors, coils or plugs to service or replace.

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Diesel engines can idle all day and all night with no harmful effects – unlike gasoline engines.

5.
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7.
Diesel engines give sea-level performance at altitudes up to 6,000 feet.

8.
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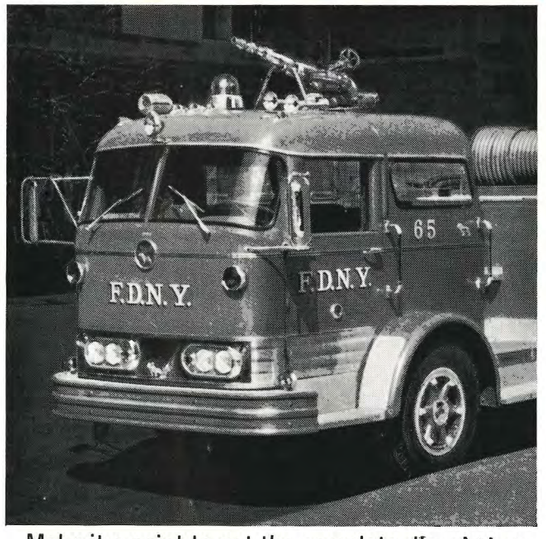

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FIREMEN

Volume 31 **Number 1**

A monthly magazine published for the fire service members of the National Fire Protection Association. Available on subscription basis only through membership in the Association. For complete details on NFPA membership and publications write to the National Fire Protection Association, 60 Batterymarch St., Boston, Mass. 02110.

Highlights of this Issue

Check your calendar for the dates of important fire service meetings to be held in the coming months. State and county meetings are announced in each issue of this magazine and meetings of national organizations will be announced in coming months as sufficient information becomes available.

During the third week of this month, January 20–24, meetings of NFPA committees will take place at the Hotel Manhattan in New York City. Included will be meetings of the NFPA Committees on Fire Department Organization and Fire Department Equipment.

On March 23, the day before the Fire Department Instructors' Conference begins in Memphis, Tennessee, the NFPA Fire Service Training Committee will hold its Annual Meeting in that city. The FDIC is scheduled to follow on March 24–27.

The 1964 NFPA Annual Meeting will be held in Dallas, Texas, May 18–22 with the Statler Hilton Hotel serving as headquarters.

Each year thousands of malicious false alarms present a danger to the public and fire fighters and temporarily deprive some neighborhood of fire protection. Apparently, some persons are not satisfied with this kind of malice and public mischief but want to be even more obnoxious. This was evident recently in Brookline, a suburb of Boston, Massachusetts, when a fake third alarm plus calls for mutual aid and ambulances were sounded for a very small hotel fire.

Chief George L. Gettings of Brookline reported that someone very familiar with departmental operation and posing as an officer "spoke very professionally" when ordering the fake multiple alarms and probably used one of the unattended radio transmitters on the fire apparatus or a chief officer's car.

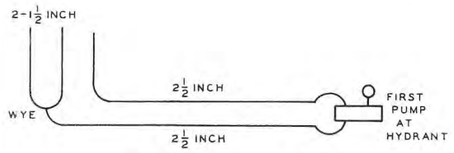
This should warn other fire departments that saboteurs, arsonists or other criminals could disrupt fire and police protection by means of false emergency orders. The routine procedures of fire departments are designed to guard against this. Not only are chief officers logged going off the air but further calls for help are honored only on specific orders from and in the name of the highest ranking officer at the fire or emergency. These radio calls are kept on voice recorders as a matter of record. The number of the car or company calling and the name and rank of the officer giving the order is required for a call to be honored and the dispatcher is required to repeat the message verbatim for confirmation.

Before the days of radio, multiple alarms were struck by telegraph key or telephone inside the alarm box which could only be opened by key and was not accessible to the public. Even then, there were attempts at fake multiple alarms by persons who obtained possession of box keys carried by all fire officers and chiefs' aides and who "tapped" the special signal needed to strike a multiple alarm. Some cities guarded against this by giving each man with a key an identifying code number or "signature" which had to accompany a message.

False multiple alarms have not been limited to the surreptitious use of the fire alarm system or radio. There have been occasions when someone on the fire ground ran up to a fire official stating that the chief in charge wanted him to strike another alarm. In some cases, the unofficial messenger may have been well-intentioned but the recent occurrence in Brookline should cause other fire departments to review their procedures for handling emergency calls, to make sure these are speedy and concise and yet do not present an opportunity for either crackpots or criminals to disrupt orderly departmental operations.

At a refinery in Mexico City last November 18 fire involved some storage tanks containing aviation gasoline. This month's cover shows fire fighters moving hose streams to keep the blaze under control. One of the tanks contained 250,000 gallons of aviation gasoline. At last report, cause of the fire could not be determined and three men who were welding when the fire occurred had not been found. (*Cover picture Wide World Photo*)

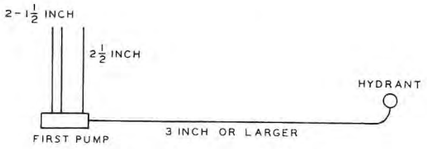
WARREN Y. KIMBALL, Managing Editor; PAUL R. LYONS, Editor; HENRY S. GERE, Advertising Manager; ROWENA D. DORES, Editorial Assistant; VIRGINIA STILES, Advertising Department.



Two-Pump Evolution

First Pump — Pull off 25 feet of 2½-inch hose, attach 2½-inch gated wye and pull both 1½-inch lines. Pump proceeds to hydrant and hooks up. Attach the 1½-inch lines and stretch out.

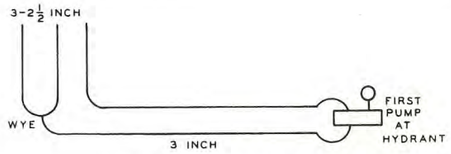
Second Pump — Pull off a 2½-inch line and attach to First Pump. Proceed to fire area, pull off 150 feet of 2½-inch line, attach nozzle and stretch.



Two-Pump Evolution

First Pump — Pull up to hydrant, catch hydrant with 3-inch hose. Proceed to fire area. Pull both preconnect 1½-inch lines and stretch out.

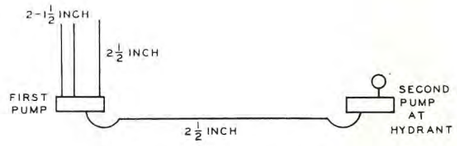
Second Pump — Pull into fire area. Pull 150 feet of 2½-inch hose, attach to First Pump and stretch out.



Two-Pump Evolution

First Pump — Pull off 150 feet of 2½-inch hose and attach nozzle. Pull off 25 feet of 3-inch hose, proceed to hydrant and hook up. Stretch out 2½-inch line.

Second Pump — Pull into fire area. Attach 2½-inch wye to 3-inch hose. Pull two 150-foot 2½-inch lines, attach to wye and stretch out.



Two-Pump Evolution

First Pump — Pull up to fire area. Pull off both preconnect lines and stretch out.

Second Pump — Pull up to First Pump. Pull off 2½-inch hose. Attach, proceed to hydrant and hook up. Pull 150 feet of 2½-inch hose from First Pump, attach and stretch out.

FIRE GROUND EVOLUTIONS

BACK in February, 1963, this magazine featured an article titled *Try This Method of Evaluating Fire Attack Effectiveness.* It was written to give fire departments, particularly training officers, a standard of performance by which fire companies could be evaluated for their team skill in accomplishing fundamental fire ground evolutions. Par score was established as 400 gpm, or the equivalent of two 1½-inch lines and a 2½-inch backup line in service within a reasonable span of time.

Comments from readers indicated that a number of fire departments have brought new interest and activity to their training programs with this type of team study. The emphasis is *not* on speed, but on the manipulative skills of laying out hose, making couplings, using the right feeder lines, and otherwise getting the optimum amount of water discharged by available manpower without undue exertion and strain.

Typical of how this can be worked into a training program is the series of evolutions developed by Ralph Ellenwood, Fire Department Instructor in Fort Wayne, Indiana, and chairman of the NFPA Committee on Fire Service Training. These were demonstrated last summer for the Indiana Fire Chiefs' Conference.

Basically, the evolutions put a two-pumper team through its paces, then add a ladder company to develop a full three-piece response unit, stressing the simple operating procedures normally required on the fire ground.

In the first series shown on these pages, emphasis is on hand line attack starting with the preconnects then backing up with a 2½-inch line. Pumper operators work directly from a hydrant or from the supply of a 2½-, 3-inch or larger feeder line. The other evolutions shown require setting up a ladder pipe or portable standpipe using both pumps to supply these and the hand lines.

Since fire departments have different preferences for hose loads, for the use of small and large hand lines, for single or multiple feeder lines and other operations, their training officers might want to set up different evolutions from those illustrated on these pages.

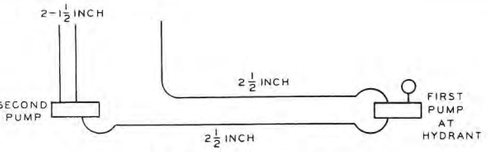
As shown in recent *Regional Round-Up* items, there is considerable variety even in the hose loads carried by municipal fire departments, but the majority today prefer to have two 1½-inch lines preconnected ready for immediate use on the fire ground, backed up by one or more 2½-inch hand lines. Of course, in planning a series of evolutions for evaluating fire company performance, the officer will think beyond the small fire which can be handled quickly with preconnected lines. He will want to develop flexibility in fire attack, as well as getting full use of the pumping apparatus in the response group. It is not significant that his department prefers the direct or reverse hose layout; it is much more important that each pumper crew be prepared for any situation. For the most part, the department's standard operating procedures should be the guide for developing the series.

As pointed out in the February article, a point system can be used to grade performance of the fire companies. First consideration must be given to how much water must be delivered on the fire target by the pumping and ladder apparatus with the normal complement of manpower. Then, decision must be made concerning how available supply can be used quickly and efficiently to achieve this water output. At least one officer should observe and calculate the gpm delivery from hand lines and heavy stream equipment, while others can watch the performance of individual fire fighters who are making the hose layouts, connecting couplings, taking the hydrant, or operating nozzles. It is well to play down "speed" in these evolutions since the goal is to pick out the inefficient movements and inadequacies that interfere with team operation.

Chief time consumer may be the setting up and supply of heavy stream equipment after the hand lines are in operation, particularly if manpower is less than standard. If delay shows in a training evolution then such delay certainly would affect fire ground tactics.

Similarly, the size and number of supply lines for pumper and ladder pipes affect the time duration of the evolutions as well as the amount of water delivered to the nozzles.

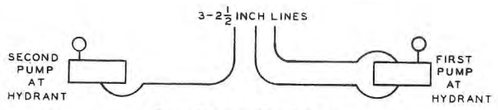
Training officers may detect other factors which are limiting the team effort and can adjust certain evolutions to get the best performance from the companies.



Two-Pump Evolution

First Pump — Pull off 150 feet of 2½-inch hose. Pump proceeds to hydrant and hooks up. Stretch out 2½-inch line.

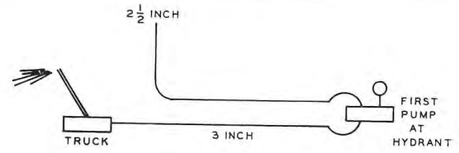
Second Pump — Pull a 2½-inch line, attach to First Pump. Proceed to fire area. Pull off both 1½-inch lines. Stretch out and charge from tank. Connect 2½-inch supply line.



Two-Pump Evolution

First Pump — Pull off 150 feet of 2½-inch hose and nozzle. Proceed to hydrant and hook up. Stretch out 2½-inch line.

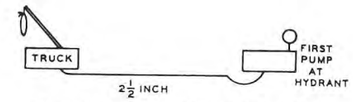
Second Pump — Pull off 2½-inch hose. Attach to First Pump. Proceed to fire area. Pull off 150 feet of 2½-inch hose and nozzle, move pump forward 10 feet, pull off 150 feet of 2½-inch hose and nozzle, proceed to hydrant and hook up. Stretch out your Number One line from First Pump.



Pump and Truck Evolution

First Pump — Pull off 150 feet of 2½-inch hose. Attach nozzle. Pull off 50 feet of 3-inch hose. Proceed to hydrant and hook up.

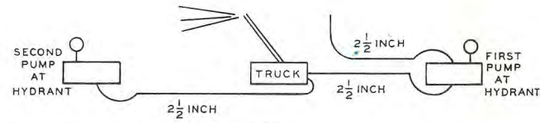
Ladder Truck — Pull into fire area, set up ladder pipe using 3-inch line to supply ladder pipe.



One-Pump and Truck Evolution

First Pump — Pull into fire area, pull off 150 feet of 2½-inch hose and gated wye, proceed to hydrant and hook up.

Ladder Truck — Pull into fire area, take 2½-inch hose line and gated wye and set up portable standpipe.

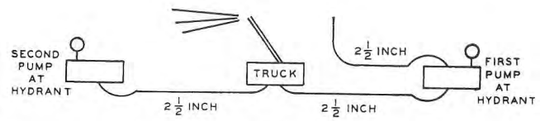


Two-Pump and Truck Evolution

First Pump — Pull off 150 feet of 2½-inch hose and nozzle. Pull off 50 feet of 2½-inch hose (split bed), proceed to hydrant laying two lines and hook up. Stretch out first line.

Ladder Truck — Pull into fire area. Set up ladder pipe using 2½-inch line to supply ladder pipe.

Second Pump — Pull into fire area. Pull off 2½-inch hose, attach to siamese of ladder pipe, proceed to hydrant and hook up.

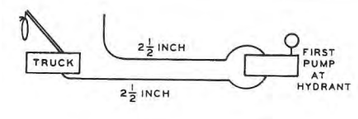


Two-Pump and Truck Evolution

First Pump — Pull off 150 feet of 2½-inch hose and nozzle, proceed to hydrant and hook up. Stretch out 2½-inch line.

Ladder Truck — Pull into fire area and set up ladder pipe.

Second Pump — Pull off 2½-inch hose, attach to First Pump, proceed to fire area. Attach 2½-inch hose line to ladder pipe siamese, pull second 2½-inch hose line, attach to siamese, proceed to hydrant and hook up.

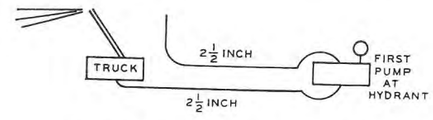


Two-Pump and Truck Evolution

First Pump — Pull into fire area, pull off 150 feet of 2½-inch hose and nozzle, proceed to hydrant and hook up. Stretch out 2½-inch line.

Ladder Truck — Pull into fire area. Set up to hoist a 50-foot hose length to roof.

Second Pump — Pull into fire area, pull off 150 feet of 2½-inch hose for ladder truck, proceed to First Pump and attach.



Two-Pump and Truck Evolution

First Pump — Pull off 150 feet of 2½-inch hose and nozzle, proceed to hydrant and hook up. Stretch out 2½-inch line.

Ladder Truck — Pull into fire area, set up to tie 2½-inch line at top to throw water in window. This line will be laid by the Second Pump.

Second Pump — Pull into fire area, pull off 150 feet of 2½-inch hose and nozzle, proceed to First Pump and attach 2½-inch line. This line is for the ladder truck.

ON-DUTY MANNING

What is its **real** strength?

by Warren Y. Kimball, Managing Editor

WHAT are the normal daily operating strengths of fire companies in cities throughout the United States? These facts must be understood if effective operating techniques and evolutions are to be developed based upon manpower actually available on duty with the companies.

A study was made of on-duty company manning in 168 cities for which recent data was available. These cities have a total population in excess of eleven million persons. The cities were classified in population groups of 25,000 to 50,000; 50,000 to 100,000; and 100,000 to 250,000.

Larger cities were omitted as not being typical, but the cities studied represented practically every state. It was found that the average manpower on duty in 1,049 engine companies was 3,787 fire fighters or 3.6 men per engine company. This broke down as follows:

Population	Average Engine Company Manning
25,000 to 50,000	3.4 men
50,000 to 100,000	3.6 men
100,000 to 250,000	3.9 men

The average number of engine companies in service for the three classes of cities was:

Population	Average Number Engine Companies
25,000 to 50,000	4.2
50,000 to 100,000	6.4
100,000 to 250,000	12.5

From this we learn that the average total number of men on duty with engine companies in the typical city is as follows:

Population	Average Total Engine Manning
25,000 to 50,000	14.2
50,000 to 100,000	23.
100,000 to 250,000	49.

This would be the total on-duty force normally available to lay lines and operate pumpers. A few cities of under 100,000 population also operated some companies equipped with pumper-ladder trucks but the average manning on these trucks was only 2.9 men. Because they are expected to provide both engine and ladder service, this strength of less than three men per company for dual service normally adds little to operational strength, especially in cities under 50,000 population in which the manpower on duty with pumper-ladder trucks was only 2.6 men per truck.

As stated many times in FIREMEN magazine, a fire department's over-all operating efficiency can often be judged by the effectiveness of its ladder or truck companies. Accordingly, it is interesting to see what actual operating strength is being provided for ladder trucks. Fifteen cities had no manned ladder trucks, although a few had pumper-ladder rigs in service. The remaining 153 cities had 325 ladder trucks, or an average of 2.1 trucks in service. Sixty-five cities had only one ladder truck in service and twenty of these had only drivers assigned and no truckmen.

The average number of truck companies in service for the three classes of cities was:

Population	Average Number Truck Companies
25,000 to 50,000	1.5
50,000 to 100,000	2.
100,000 to 250,000	4.1

The average number of men on duty with these trucks was:

Population	Average Number Men on Duty
25,000 to 50,000	2.0
50,000 to 100,000	3.0
100,000 to 250,000	3.7

From this we find that the total on-duty truck company strength in the average city was:

Population	Average Truck Company Strength
25,000 to 50,000	3.
50,000 to 100,000	6.
100,000 to 250,000	15.

Since full on-duty manning for truck companies is six men for areas of ordinary hazard and seven men in high hazard districts, it can be seen that the total on-duty truck company personnel in the average city under 100,000 population was less than that required to man one ladder truck properly. Their cities actually had 230 trucks in service with an average of only 2.6 men on duty per truck.

Twenty-eight per cent of the cities operated a total of 58 squad companies or rescue companies with a total on-duty strength of 124 men or 2.1 men per company. As this additional manpower would not be sufficient to run and operate one big line, it may be seen that in the majority of cases these additional companies are undermanned also.

Of the total on-duty manpower in the cities studied, 76.7 per cent was with engine companies, 19.3 per cent with ladder companies, 1.5 per cent with pumper ladder companies, and 2.5 per cent with squad and rescue companies.

In view of the fact that average fire company manning in the 168 cities of 25,000 to 250,000 population is only 3.4 men per company, it should be obvious that fire fighting tactics based upon the use of engine and ladder companies as effectively manned separate units are quite unrealistic except in big cities which maintain standard company manning.

The fire department in Westfield, New Jersey, has one of the few remaining "Little Giants" and sometimes displays the unit in parades. Photo at left shows the soda and acid tanks, brass pump amidship, and hose reel at lower left. (*Photo by Jim Burner, Jr., Oakhurst, N. J.*)

THE "LITTLE GIANT"

by Harold S. Walker, P.E. (Member NFPA)

ONE of the earliest types of fire fighting equipment using chemicals (soda and acid) as an extinguishing medium was manufactured in the late 1860's. It was built by the Kingsford Foundry & Machine Works, of Oswego, N. Y., for A. F. Spawn & Company, General Agents, of New York City, and possibly other sales agents. This apparatus, known as the "Little Giant" chemical fire engine, was patented May 28, 1867. It was intended for use in industrial plants, railway installations, villages and small towns and was quite widely sold between 1868 and 1878, when the automatic chemical engine came into general use.

The "Little Giant" was drawn by hand and consisted of two copper water tanks, a box containing acid in powder form, a soda box and a manually operated brass pump, mounted on a four-wheel carriage. The pump was located midship between the tanks. It was connected to each tank by a brass pipe with a shut-off valve at the tank base. The pump was operated by "brakes" or hand levers similar to the small end-stroke hand engines of earlier days.

When the engine arrived at the scene of a fire, both tanks were filled with water from buckets carried on the machine. The acid was dumped into one tank and the soda into the other, the valves were opened, the hose unreeled and the boys started pumping. When the solutions mixed at the pump, a chemical reaction took place, possibly increasing the pressure of the mixed solution and supplying "carbonic acid gas" to the stream with great extinguishing power, it was claimed.

If the supply of soda and acid became exhausted, the engine could continue operation as a water pump. Thomson Kingsford, grandson of the original manufacturer, stated in a letter to the writer that, when the machine owned by him was tested with plain water, it took six men working hard at the brakes to maintain approximately 90 psi at the pump.

The engine was made in two sizes: one requiring four men at the brakes, the other, six men. The smaller engine had two 25-gallon tanks, 50 feet of ¾-inch rubber hose, 100 pounds of chemicals and would deliver a stream 60 feet from the end of a 5/16-inch nozzle tip. It weighed 600 pounds and cost $400. The larger machine had two 35-gallon tanks, 75 feet of ¾-inch hose, 150 pounds of chemicals and would deliver a stream 75 feet from the nozzle. This engine weighed 900 pounds and cost $700.

The A. F. Spawn & Company catalog for 1877 states that this was the only chemical engine on the market with which water and/or chemicals could be thrown at will and that this engine had — and I quote — "the extinguishing power of any $3,000 self-acting engine or twenty portable extinguishers combined."

A few of these engines are still in existence. Among present-day owners are Mr. Thomson Kingsford, Oswego, N.Y.; Volunteer Fire Co. 1 of Schaefferstown, Pa.; Townsend, Mass. Fire Department; and the Westfield, N.J. Fire Department.

The volunteer fire company in Schaefferstown, Pennsylvania, also owns a "Little Giant." This picture, taken some years ago, shows the relative size of the apparatus compared to its "crew." Even though the chemical engine was small, it took some hefty firemen to man the brakes and maintain a steady stream. (*Photo courtesy of Harry W. Sanders, Secretary, Vol. Fire Co. 1, Schaefferstown, Pa.*)

Right front view of Martinsville salvage truck. Note the large floodlights.

Equipment Carried in Salvage Truck

1 — Scott Air-Pak
5 — Extra air cylinders
1 — 8- x 10-foot canvas carry-all
1 — Block and tackle with 100-foot line
1 — 100 feet of ⅝-inch rope
1 — Short rope of assorted sizes
1 — First-aid kit
2 — 100 lb. bags of sawdust
1 — Box of rags
1 — Box of ⅜- and ⅝-inch sprinkler head plugs
1 — Claw hammer
6 — 10- x 12-foot salvage covers
5 — 15- x 15-foot salvage covers
2 — 18- x 20-foot salvage covers
4 — 15- x 18-foot salvage covers
3 — Machine covers
4 — Spanner wrenches
1 — Hydrant wrench
1 — 1½-inch nozzle
3 — 50-foot lengths of ¾-inch garden hose and nozzle
1 — 1½-inch to ¾-inch reducer
1 — 50-foot length of 1½-inch hose
2 — No. 3 wash tubs
3 — 4 gal. tubs
2 — Mop buckets
2 — Scoops
2 — Shovels
4 — Mops and handles
4 — 18-inch push brooms
3 — Straight fiber brooms
3 — 24-inch squeegees and handles
3 — 18-inch squeegees and handles
1 — 3,000-watt Winco generator
4 — 100-foot lengths of electric cable on reels for floodlights
2 — 100-foot lengths of electric cable for smoke ejector
2 — 500-watt floodlights
2 — 300-watt floodlights
2 — Super-Vac smoke ejectors
1 — 3-gal. safety gasoline can
2 — Window covers for smoke ejectors
2 — Door covers for smoke ejectors
2 — 12-foot pike poles
2 — Pick head axes
1 — 10-foot roof ladder
1 — Flat head pick
1 — Tow line
1 — Lock chain
1 — Pry bar
1 — Flashlight
1 — Carton extra floodlight bulbs
4 — Wool blankets
1 — ½-inch electric drill
1 — Set of sockets
1 — Set of box and open-end wrenches

Still to be added to inventory:
1 — Small chain saw
1 — 2-ton winch-hoist
Several hundred square feet of salvage cover

WELL-DESIGNED SALVAGE TRUCK

THE fire department in Martinsville, Virginia, has seventeen paid men and thirty-five volunteer members. It protects a city of 19,000 population and in recent years has undergone considerable change and improvement. Back in 1961, Martinsville received the Grand Award for U. S. municipalities which entered the NFPA Fire Prevention Contest for that year.

A report from Chief Easterly calls attention to the latest addition to his fire department. This is a well-designed salvage truck of the type that is quite suitable for cities in the 35,000 to 50,000 population category. Chief Easterly and members of his department spent several years in planning the design of this apparatus and studied a number of vehicles used by fire departments in other cities.

When this unit was being planned, a primary objective was to design apparatus which could answer all fire alarms and other emergencies within the city's jurisdiction. It was realized that the salvage truck would have to carry a reasonable load of equipment and still be easily handled in traffic and on the fire ground. The Martinsville Fire Department gave close attention to panel trucks and other vehicles with enclosed bodies but came to the conclusion there was too much difficulty in getting in and out of trucks of this design.

Rear view of salvage truck showing smoke ejector and lights at left, portable generator at right. Short ladders are carried in compartments below catwalk in center.

Compartments on Martinsville Salvage Truck

Compartment	*Size in Inches* Width	Height	Depth
L-1 and R-1	28	30	33
L-2 and R-2	28	30	27
L-3 and R-3	25	30	33
L-4 and R-4	25	30	27
L-5 and R-5	51	18	33
L-6 and R-6	51	18	33
L-7 and R-7	30	28	33
Re-1 (smoke ejector)	27	26	33
Re-2 (tire chains and tow cable)	24	9	22
Re-3 (generator and portable fuel tank)	27	26	33
Re-4 (full length roller shelf)	24	12	135
Re-5 (ladders and window and door covers for smoke ejector)	24	12	135

All compartments have individual lighting units with a master control switch in cab.

Compartment Shelves

One adjustable shelf was provided in each of the following compartments:

L-1, R-1, L-2, R-2, L-3, R-3, L-4, R-4, L-7, and R-7.

NOTE: L=left side; R=right side; Re=rear.

Early in the planning stage it was decided that the salvage truck would have compartments, all of which would open to the outside permitting removal and replacement of equipment by men standing on the ground.

Chief Easterly and his staff spent about a year making preliminary drawings for the salvage unit. In the meantime, volunteer members of the department voted to underwrite the cost of the truck, using funds which they raise each year through several projects.

After gathering much information and data, the fire department decided that a commercial truck of about 18,000 pounds gross vehicular weight would be able to carry the anticipated load of salvage equipment and manpower. A 1963 F-500 Ford chassis was selected and final drawings recommended a truck body 135 inches long with a 14-inch overhang for the rear step. The truck body was 90 inches wide, 60 inches high. Plans called for a center catwalk running the full length of the body with enough space allowed for two shelves, also running the full length.

Other features required in the truck soon made it obvious that the unit would have to be built on a custom basis. The final contract was given to C. F. Kadas Co. of Oceana, Virginia, and the truck was delivered about six months later. It was put in active service May 1, 1963.

Features of the truck are readily seen in the photos on these pages. Sizes and locations of the compartments are reported in the box at upper right.

Chief Easterly reports that it was possible to remove quite a bit of equipment from engine companies and store it in this salvage unit. The new truck responds to all alarms and the department reports that its use has already saved thousands of dollars in potential damage to buildings involved by, or exposed to, fire. Chief Easterly states that since the truck does not carry any pumping equipment it is much more adaptable than it would be as an auxiliary pumping unit, since the vehicle is not used for any purpose except salvage work.

Left side of salvage unit showing compartments for breathing apparatus, block and tackle, salvage covers and other equipment. (*Photos by Remsen Studio, Martinsville, Va.*)

REGIONAL ROUND-UP

A spot check of progress and plans of NFPA member fire departments and other fire service organizations in various regions.

NEBRASKA, MISSOURI, and ILLINOIS

Apparatus of the Norfolk, Nebraska, Fire Department, on display in front of fire department headquarters, includes a service ladder truck, 3 pumpers, a tank truck, a hose tender, an ambulance and a chief's car.

ANOTHER department converting its radio frequency is the fire department in *Norfolk*, Nebraska, commanded by Chief Fred J. Bussey. Formerly, the department used the police frequency but it is now going on the local government frequency of 154.980 mc. It will also install a 39.9 mc. monitor to permit cross-relay on mutual aid calls to the ten towns surrounding Norfolk.

Chief Bussey reports that the fire department recently purchased a new 1,000 gpm pumper and a 1,000-gallon tank truck. The department, consisting of twelve paid men, eight call men, and 92 volunteers, protects 108 square miles. Apparatus includes a service ladder truck, a 1,000 gpm pumper, a 750 gpm pumper, a 1,000-gallon tank truck, a 750 gpm rural pumper plus a 1,250 gpm hose tender.

The present ambulance will be replaced by a rescue unit now being built on a one-ton GMC chassis.

All hose couplings have National Standard threads. The two city pumpers each carry 1,600 feet of 2½-inch hose and 400 feet of 1½-inch hose while the 1,250 gpm hose tender carries 2,000 feet of 2½-inch hose with a split hose bed loaded for reverse lays. Otherwise all hose is carried in a horseshoe load for straight lays. The rural pumper carries 1,000 feet of 2½-inch hose loaded in this manner.

A report from Chief Instructor William A. Berens, of the Nebraska Fire Engineering Training staff, states that now 325 rural fire protection districts are responsible for 85 per cent of the area of Nebraska. Many of these have Class A pumpers and more than 100 of the districts supplement these pumpers with tank trucks of at least 1,000 gallon capacity.

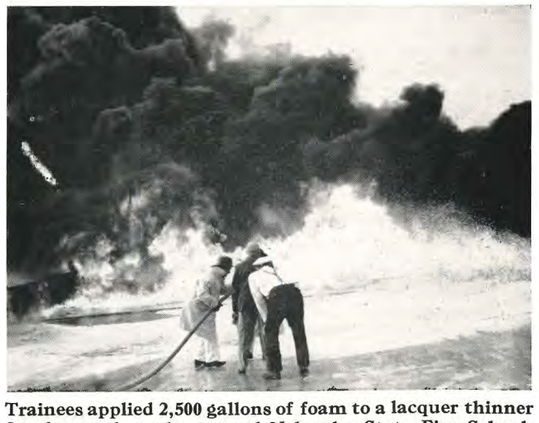
Most recent trend in the state is the organization of Mutual Aid Districts consisting of 4 to 20 fire departments which plan large-scale operations. The Fire Engineering Training Service has scheduled 14 one-day programs to help develop this mutual aid program.

Chief Walter Garbers, who heads the *Columbus* Fire Department, reports that a 75-foot Pitman Snorkel truck was delivered recently. This will carry 208 feet of ground ladders.

Present apparatus includes a 1,000 gpm pumper carrying 2,000 feet of 2½-inch hose and 200 feet of 1½-inch hose (skid load, fire to hydrant); a 750 gpm "quad" carrying 1,000 feet of 2½-inch and 200 feet of 1½-inch hose (skid load, hydrant to fire); a 750 gpm pumper with 1,000 feet of 2½-inch hose and 200 feet of 1½-inch hose (skid load, fire to hydrant); a 500 gpm pumper with 1,000 feet of 2½-inch hose (skid load, fire to hydrant); a rural 500 gpm pumper carrying 1,000 feet of 2½-inch hose and 200 feet of 1½-inch hose (skid load); a 1,100 gallon tank truck with 2 portable pumps and preconnected 1- and 1½-inch lines; and a 1954 Cadillac ambulance unit.

All vehicles are radio equipped and two trucks have foam and wetting agent proportioners. There are 65 fire alarm units located in the fire fighters' homes.

Officers in the department include a chief, assistant chief, chief instructor, captains and junior captains for each company — all elected annually. Business of the department is conducted by the president, vice-president, secretary, treasurer and business board. The department has an effective Junior Fire Patrol for fifth grade school children. Now in its fifteenth year, it has received eight NFPA certificates of merit for fire prevention.



Trainees applied 2,500 gallons of foam to a lacquer thinner fire featured at the annual Nebraska State Fire School.

The Humphrey Volunteer Fire Department protects the town of *Humphrey*, population approximately 800, plus a rural area, which covers 99 sections and approximately 200 farms.

Chief Ervin L. Nissen reports: Our equipment consists of a 1951 500 gpm pumper for the city; a 1960 500 gpm pumper and a 1,000-gallon tanker for the rural area, and one rescue unit — a new truck which went into operation March, 1961. All units are radio equipped.

Normal hose load is for a reverse lay. About 2,500 feet of 2½-inch hose with standard thread is carried and pre-connected 1½-inch lines are on city and rural units. Newest equipment is two self-contained oxygen breathing apparatus.

W. Bush Walden, Administrative Assistant, in charge of Firemanship Training Department, Extension Division, University of Missouri, has reported on training for the past fiscal year. In the state there were nine Regional Fire Association Conferences, 144 Circuit training classes in 107 locations, 4 training classes and 41 fire prevention lectures and demonstrations. Systematic training was given to 1,275 fire fighters and 1,140 attended the Regional Conferences.

A note from State Forester Osal B. Capps states that the forest fire control section of the Missouri Conservation Commission has brought Butler and Lincoln Counties under its protection. This means that there are approximately 10,000,000 acres of land under the state's protection, most of the land privately owned. The Commission's Forestry Division is experimenting with alginate fire retardants for "sedge" grass fires. Tests are being conducted in the Neosho Fire Protection District in southwestern Missouri, and the results seem promising.

The new fire station of the *Rolla* Fire Department is of colonial design reports Chief Jim Curtis. It houses three pieces of apparatus and includes a 50- by 60-foot apparatus room, a 30- by 60-foot living quarters, a 50- by 60-foot auditorium and an upstairs museum. The station measures 134½ feet long and 60 feet wide. Present apparatus of the department includes a 1956 American-LaFrance 750 gpm pumper and a 1939 Seagrave 65-foot aerial ladder with a 750 gpm pump. Each apparatus has a divided hose bed. Half the hose on the pumper is loaded for straight lay, the other half for reverse lay. Two booster reels, each with 200 feet of hose, are midship mounted and 30 feet of soft suction hose is connected to a rear intake. The pumper also carries two 150-foot lines of 1½-inch hose. The ladder truck has a booster reel in the rear, 75 feet of 3-inch hose for the ladder pipe and 1,300 feet of 2½-inch hose with 100 feet in a basket on the side.

Inspections and training are conducted under a two-platoon system in the *Webster Groves* Fire Department, reports Captain Jack R. Buechler. Each platoon is commanded by a captain — one in charge of training, the other in charge of inspections. Periodically, the officers switch platoons, so that all men in the department alternately receive training and make inspections.

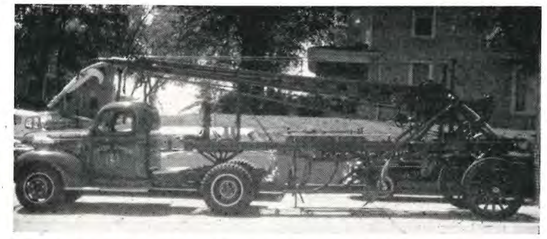
Apparatus of the department, commanded by Chief Harold J. Busch, includes two 1,000 gpm Seagrave pumpers, a recently acquired 85-foot Seagrave aerial ladder-pumper combination of 1,000 gpm capacity, a 750 gpm reserve American LaFrance pumper, and a chief's car. All apparatus is radio equipped.

Captain Buechler writes:

Our two 1,000 gpm pumpers have divided hose beds with 1,200 feet of 2½-inch hose on the right side and two donut rolls with preconnected nozzles over an accordion load. The left side of each is loaded with about 1,100 feet of 2½-inch hose with 200 feet of 1½-inch hose, on a skid, wyed off the 2½-inch hose. The reserve pumper and the aerial ladder each have a single hose bed with 1,000 feet of 2½-inch hose and 200 feet of 1½-inch hose on a skid over an accordion load. The ladder truck also has a compartment beside the ladder bed carrying 100 feet of 3-inch hose with 2½-inch couplings.

The department recently adopted a hydrant color coding system. Hydrants are painted green with either white, yellow or red tops and caps. White indicates maximum gpm flow; red indicates minimum flow.

A working mutual aid agreement is in effect between Webster Groves and twelve other communities in the east central section of St. Louis County.



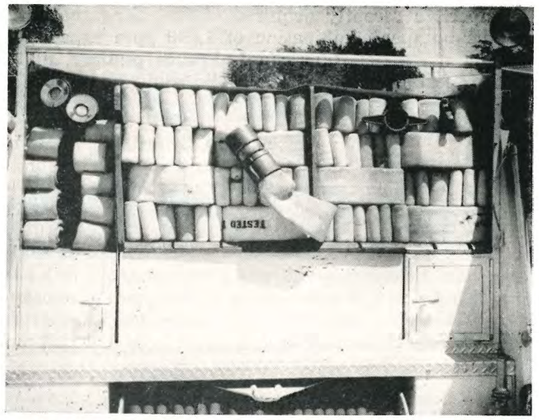
Water tower used by the St. Joseph, Missouri, Fire Department was originally part of its horse-drawn apparatus.

In the *City of St. Joseph*, reports Chief L. L. Jessee, split hose loads are carried on all pumpers. An average of 1,400 feet of 2½-inch hose is loaded on each truck — one portion for a reverse lay; the other portion for a straight lay from hydrant to fire. Three of eleven pumpers have single compartments for 1½-inch hose; the other eight have two compartments for this hose. Eight of the eleven pumpers carry one load preconnected and three carry two loads preconnected. The pumpers with the single compartments have 300 feet of 1½-inch hose, while the ones with two compartments carry hose loads of 200 and 300 feet.

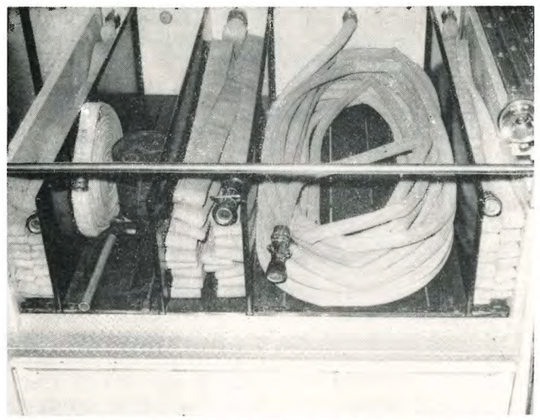
St. Joseph still has a water tower which was originally part of its horse-drawn apparatus. The photo shows this equipment drawn by a 1941 tractor.

More From Illinois

The state fire marshal's office, under the direction of William J. Cowhey, has been conducting arson schools in a number of cities throughout the state. In addition, the office has participated in re-writing Illinois Gasoline and Volatile Oils Rules, LP-Gas Rules and other state regulations for fire prevention and safety. Assistant State Fire Marshal Joseph D. Patton also reports that a new set of regulations for hotels and rooming houses will help to eliminate some of the hazardous conditions found in off-campus housing for college students.



1. Engine 1, protecting downtown district, carries two horseshoe loads of 3-inch hose having 2½-inch couplings. Compartment at left has two 150-foot lengths of 2½-inch hose connected to a wye.

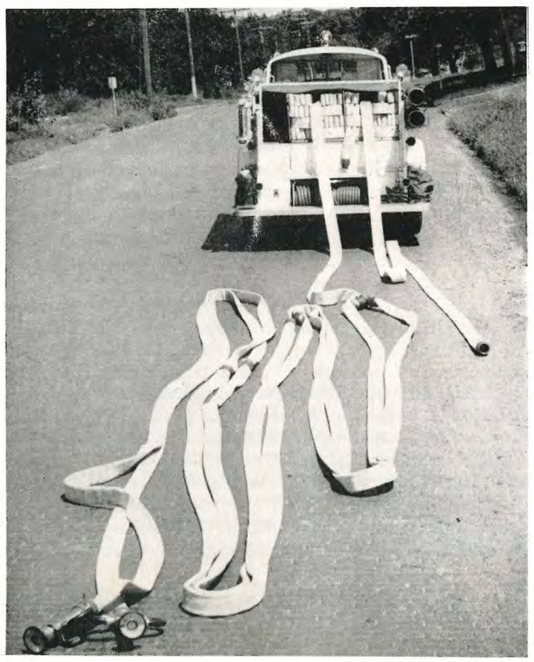


2. Engine 6 serves as a "Squad" and has a preconnected 1½-inch dry line at left, a donut roll of 1½-inch hose and foam can in next compartment, preconnected 1½- and 2½-inch lines in center, a charged 1½-inch line, plus another preconnected 1½-inch dry line.

OPERATIONS IN STILLWATER

FOR many years, the fire department of *Stillwater, Oklahoma*, has used some interesting fire ground operations. A report from the department brings us up to date on some of these. Protecting the high-value district are Engine 1 and Engine 6. Engine 1 is a 1,000 gpm pumper carrying two horseshoe loads of 3-inch hose equipped with 2½-inch couplings on either side of a baffle board. Each compartment holds 750 feet of hose and is connected between loads to permit layout of one long line if necessary, or, by breaking the coupling, paying out two lines simultaneously.

3. Engine 1 dropping two 3-inch lines; one supplies wyed 2½-inch lines, the other supplies a ladder pipe.



A third compartment holds two 150-foot lengths of 2½-inch hose connected to a wye. (See Photo 1.)

Engine 6, a 750 gpm pumper, is called the "Squad." As shown in Photo 2, the hose load includes (left to right) a 1½-inch preconnected dry line, a donut roll of 1½-inch hose for use of foam equipment, a 1½-inch precharged preconnected line, a preconnected 2½-inch line and another preconnected 1½-inch line. A 1-inch booster line is on a reel just forward the left side of the hose bed. All lines have Elkhart "SOS" adjustable fog nozzles, 200 feet in length, and are controlled by separate valves on the pump panel.

In a typical downtown fire, the "Squad" unit goes directly to the front of the building and starts attack with the precharged 1½-inch line (supplied from the truck tank). Engine 1 immediately lays a 3-inch supply line from the nearest hydrant to the gated 2½-inch intake on the "Squad" unit. This line is charged and other lines are put into operation from the "Squad" as manpower permits. At this stage, three 1½-inch lines, a 2½-inch line, a 1-inch line and a 1½-inch foam line can all be used if necessary.

If the fire appears severe, Engine 1 makes a second hose layout. This involves disconnecting the two 3-inch hose loads, pulling the 3-inch hose and the 2½-inch wyed lines from the bed flaking them on the street, then connecting a section of the 3-inch hose to the wye to feed the 2½-inch lines.

The remaining section of 3-inch hose is then used to feed the 85-foot aerial ladder truck which responds to all downtown fires. (See Photo 3.) Engine 1 then proceeds to the next hydrant laying two lines of 3-inch hose simultaneously. After hookup, it then pumps back to the fire through these lines. These operations permit use of three 1½-inch, three 2½-inch and one 3-inch line in minimum time with minimum manpower.

The rear of the building is covered by another 1,000 gpm pumper which carries 1,000 feet of 2½-inch hose for hand lines and 800 feet of 3-inch hose with 2½-inch couplings for supplying master stream devices.

BEST PHOTOS OF 1963!

THE professional or amateur photographer who tries to take good, clear pictures of fire ground action gets more than his full share of frustrating moments. No matter how much he tries for a good photo, the odds are weighted quite heavily against him. Smoke, heat, noise, apparatus, equipment, hose lines, fire chiefs, firemen, the general public and other photographers are his basic obstacles. Then he has the problem of getting to the best location at the right moment, anticipating or selecting the best action, adjusting for the best lens opening and exposure, lifting the camera to squint through the sight, and finally snapping what he considers to be the finest action photo of the year.

Then, in the next two or three seconds, as he is relishing his moment of triumph, someone runs up to him and says, "Boy, you should have been on the other side! Everything's happening there!"

So, with acknowledgment of *all* photographers' miseries, we again present our annual selection of outstanding photos of the past year. These were picked from the hundreds of pictures submitted to the NFPA Fire Record Department during 1963. We are looking for more and perhaps even better photos during 1964. (*A folder describing NFPA photo requirements is free on request. — Ed.*)

SKY PILOT directs a ladder pipe stream to protect Our Lady of Sorrows Church tower in Detroit, Michigan, last April as flames break through window and roof at lower left. Fire started in vacant factory, leaped across street to involve church. (*Photo by W. Dinty Moore.*)

SHADOWS BY THE FIRE are those of Turlock, California, fire fighters as large industrial park facility burns. Despite intense heat, Chief Carroll E. Chittock's fire department salvaged 16,000 tons of feed and grain.

LAST TRY by Boston, Massachusetts, fire fighter is in vain. This child and another died in a dwelling fire last November. Such photos are now the "classic" illustration of firemen's maximum rescue efforts and devotion to public service. (*Photo by William F. Brett, Dorchester, Massachusetts.*)

LUGGING A LINE to the roof, fire fighters prepare to engage one of the toughest fires of 1963 in Cambridge, Massachusetts. A vacant building, formerly used for meat packing and storage, became involved. Fire development and conclusion is shown in next five pictures. (*Photo by Mrs. Albert J. Farnsworth.*)

BOILING SMOKE came from all openings as oil soaked floors, grease accumulation and cork insulation in 119-year-old building became involved. Sprinkler and alarm system had been shut off previously. (*Photo by Ron Kramer.*)

RAINBOW is created as hand lines and deck pipes are directed into lower floors. Mutual aid calls brought fire departments from Somerville, Boston, nine other cities, twelve towns and the Bedford U.S. Air Force Base. (*Photo by Ron Kramer.*)

DECK GUNS and other heavy streams made little impression on intense fire which spread vertically and laterally through the seven-story building. Thirty-seven engine companies, six ladder companies, three squads and ten other units worked for 12 hours. (*Photo by Ron Kramer.*)

TOTAL BURNOUT of the seven-story building came about ten hours after the first alarm. Sparks and burning brands were blown in many directions and started small fires on other buildings which were quickly extinguished. (*Photo by Ron Kramer.*)

LIMITATIONS of heavy streams against extensive fire area are shown here. Many ground ladders were placed in early stages of fire but had to be withdrawn later. The fire seemed to be under control in first three hours but suddenly burst almost explosively throughout building. (*Photo by Ron Kramer.*)

INDICATIVE of a significant trend was the fire apparatus driver training course of the Silver Spring, Maryland, Fire Department, demonstrated last summer at the University of Maryland. Here a ladder truck turns past the stanchions. (*Photo by Warren Y. Kimball.*)

(Left) **OIL FIRE CONTROL** was practiced in a number of western and southwestern states last year. Photo shows a phase of training given by the Los Angeles County Fire Department. (*Los Angeles County Fire Department photo.*)

OLD SCHOOL in Bloomfield, Connecticut, used for school administration offices and town library was badly damaged by fire last July. School records were protected against water damage by metal cabinets but many library books were soaked. Photo at left is an unusual view of interior fire seen through doorway. January 1964 NFPA *Quarterly* has an article describing impact of a school fire on a community. (*Photo at right by Morgan Utzig. Photo at left by Thomas Heineman.*)

DOUBLE IMAGES caused by bright sun and heavy shadows make this an unusual black-and-white photo. Chet Born, official photographer of the San Francisco Fire Department, snapped this picture during a factory fire last June. Note water tower in the center.

SUPER STREAM was needed to hold drug store fire in Ontario, California, on August 23. The fire had burned for three to four hours before it burst through plate glass window. Alarm was sent immediately. Ontario Fire Department directed by Acting Chief R. L. Custer was helped by fire departments from Monte Vista, Upland and Chino. (*Photo by Ontario Fire Department.*)

Harpers Ferry Park

NFPA member C. F. Reininger, president and general manager of Powhatan Brass & Iron Works, Ranson, West Virginia, calls attention to a restoration project now under way for Harpers Ferry National Historical Park.

He reports that Park Superintendent Joseph R. Prentice is about to relocate the fire station of the old arsenal at Harpers Ferry, where John Brown made his stand more than one hundred years ago. Prentice wants not only to restore the building to its original appearance but also to furnish it with fire apparatus and equipment used in the 1850–1860 decade. About 700,000 persons visit the park each year, and the old fire house is expected to be a major attraction.

Mr. Reininger wants to know if readers of FIREMEN magazine can help in securing authentic equipment by loan or donation. He quotes a letter, written in 1845 by the armory superintendent to the Ordinance Bureau, itemizing certain equipment that was needed. The letter requested $1,200 to purchase a "first rate suction engine, plainly built, but strong" to supplement a "throwing engine" apparently of 1825 vintage. In addition to these two pieces of apparatus, the letter requested 800 feet of rivet hose, a hose cart, ladders, hooks, fire buckets and axes — all of the 1845–46 period.

Readers who know where such apparatus or equipment might be available for display in the renovated museum can write to Mr. Reininger or to Park Superintendent Prentice.

HEARD ON THE AIR!

"Fire alarm to units at fire . . . The temperature is now 10 below zero. . . . Precautions should be taken to guard against the freezing of booster equipment."

New Chief in Mount Clemens

APPOINTED in December to command the Mount Clemens, Michigan, Fire Department was Chief Chesley L. Miller, former Assistant Chief of the department. He succeeded Chief Clayton E. DuBay who retired in November.

Chief Miller started his career in Mount Clemens in 1933. He was one of three officers in the department who competed for the top position. Prior to his appointment, he supervised fire prevention and training in the department, which consists of 21 paid fire fighters and 27 volunteers. Chief Miller is a member of NFPA, the Fire Marshals Association of North America, the International Association of Fire Chiefs, is past president of the Michigan Fire Inspectors Society and is a member of the University of Michigan Extension Service staff for fire training.

Ontario Fire College

THE Ontario Fire College in Gravenhurst will start its longest academic term in March. An 8-month program has been scheduled, running from March 2 to October 30. Two new courses have been added to the regular program. One provides a full week's instruction in fire inspection practices for volunteer fire officers. The second extends the Basic Fire Inspection Practices course for an additional week. The Administration Course for senior fire officers and the Radiological Monitoring Course for officers also have been revised.

Training at the fire college is given free, although fire service members from areas outside of Ontario are responsible for their own travel and living costs. The fire college has a wide selection of text books for its various courses and these books are given free to each student. The publications include the NFPA *Fire Protection Handbook*, the *Inspection Manual*, the *National Building Code of Canada*, *Municipal Fire Administration*, *Effects of Nuclear Weapons*, and *Living with Radiation, Parts I and II*, plus a number of the "redbooks" published by Oklahoma State University.

As mentioned in previous issues of the magazine, the Ontario Fire College facilities are located in a popular resort area on the shore of Lake Muskoka in Gravenhurst. For copies of the college's training calendar for 1964, write to Director D. E. Barrett, Ontario Fire College, Gravenhurst, Ontario.

Developments in Los Angeles County

THE latest Biennial Report of the Los Angeles County Fire Department covers the two fiscal years from July, 1961, to June, 1963. The 20-page, 8½- by 11-inch booklet gives a summary of activities of the various fire fighting and administrative divisions of the department and has a number of interesting statistics and illustrations.

Chief Keith Klinger, who commands the department, serves as Chief Engineer of the county's fire protection districts and as County Forester and Fire Warden. He has an administrative deputy in charge of the administrative services of the department and a chief deputy fire officer who supervises the five fire fighting divisions, the Fire Prevention and Training Division, the Services Division (which includes construction and maintenance and special services), the Research and Planning Division and the Forestry Division. The department operates on an annual budget of nearly $12,000,000.

Among the projects reported in the booklet are the studies by the Research and Planning Division, such as the "master plan" of future fire protection needs of the cities and districts served by the department and the "10-year watershed program," a comprehensive plan for the additional fire protection needs of watershed and wildland recreational areas. Other projects included the formation of the Dominguez County Fire Protection District last July; the fire protection study of Marina del Rey, a harbor for small craft; and planning for fire protection facilities for forthcoming development of a large area of Catalina Island.

The Fire Fighting Services with its five divisions includes 12 battalions, 121 engine companies, 19 rescue units, 7 truck companies, an air attack unit, a helicopter, an air tanker, an airport crash unit and one fireboat. This division is responsible for protecting life and property in an area exceeding 2,100 square miles. In addition to covering unincorporated areas and watershed territory, fire protection is furnished to 27 incorporated cities, 2 airports and the Marina del Rey.

Among its developments, this division lists the use of 2½-inch constant-flow, 120–240 gpm fog and straight stream nozzles, large volume (500 to 1,000 gpm) nozzles and more use of wet water for fire extinguishment. Incidentally, fire department response for rescue purposes has increased approximately 15 per cent annually in the past five years and, consequently, resuscitators have been placed on 85 engines and truck companies, and plans call for giving this equipment to all other companies by July 1.

Fire department training in the county is continuous and extensive. The training section issued five new training manuals covering air attack, hydraulics, radiological monitoring, commercial inspections by fire companies and rocket propellants. In October, 1962, a new training center for oil fire control was dedicated in Del Valle. This is operated in cooperation with the Petroleum and LP-Gas Industries in Southern California.

The Forestry Division also has some interesting operations under way. In the past two years, approximately four hundred acres of watershed and recreation area were replanted with trees and about 30 square miles of burned watershed were seeded with rye grass by aerial operations. This included the large Bel Air-Topanga area burned in November, 1961. Five nurseries are producing over 255,000 forest trees every two years and these are being planted in appropriate areas.

Of interest is the research of fire retardant vegetation being carried out at the Arboreta and Botanic Gardens. Experimental plots of rockrose, saltbush and yerba santa are being established to test the adaptability to soil and climatic conditions. Large-scale burning tests may be made at a later date.

Title Change

FOR many years NFPA Standard No. 101, *Building Exits Code*, has been widely accepted in the United States and Canada as a standard for measures to provide safety to life from fire in buildings and other structures. Practically every year revisions are adopted during the NFPA Annual Meetings.

Recently a new title was adopted for No. 101. It is now known as the NFPA *Life Safety Code*, since the committee responsible for this standard felt that its recommendations dealt with more than building exits. Architect Edward Grey Halstead is chairman of the committee which includes building code officials, building materials manufacturers, fire marshals and fire protection engineers, and others.

New Chief in Boston

IN NOVEMBER, Chief William A. Terrenzi was appointed as top officer in the Boston, Massachusetts, Fire Department. He succeeds the late Chief John A. Martin.

Chief Terrenzi has had thirty-two years of service with the department and rose through the ranks to his present position. For the past few years he has served as Assistant Chief in charge of Operations, which included responsibility for directing the fire fighting and training divisions.

Quarterly Item Features

FEATURES in the January, 1964, NFPA *Quarterly* cover a wide area of technical information. Of primary interest to fire departments is the article *School Fires Cause Hardships* which discusses the severe impact of a public school fire on a typical community.

Of more specialized interest is the article *Compatibility of Mechanical Foam and Dry Chemical* by Rolf H. Jensen, of Underwriters' Laboratories, Inc. This helps to resolve questions concerning the use of foam and dry chemical as combined agents in fire extinguishment.

Another feature of broad interest discusses fire protection measures which must be followed for adequate safety during wartime bombing attack. This article is based on a presentation given to the 1963 Annual Meeting by G. E. Troxell, Professor of Civil Engineering at the University of California.

The issue also includes a description of research by the Forest Products Laboratory of the U. S. Forest Service, written by H. W. Eickner and C. C. Peters. This article deals with the surface flammability of wood coatings.

Fire Association Officers

Michigan Fire Inspectors Society

President, John Bunk, Fire Inspector, Livonia; Vice President, John Williams, Fire Marshal, Ann Arbor; Secretary-Treasurer, Paul J. Albright, Fire Marshal, Plymouth.

Missouri Valley Association of Fire Chiefs

President, Roscoe Benton, Lincoln, Nebraska; First Vice President, Dean Annis, Abilene, Kansas; Second Vice President, A. H. Putschler, Dickenson, North Dakota; Secretary-Treasurer, Raymond A. Davis, Wichita, Kansas; Director to IAFC, Paul A. Soenar, Independence, Iowa.

Harlan Clappervalve's Calendar

A compilation of Important Fire Service Celebrations

JANUARY

1 New Year's Day — Hose Bowl Game
2 National "Give Up Resolutions" Day
3 Fog Nozzle Day
4 Nog Fozzle Day
5 Night of The Fifth
6 Day After The Fifth
7 Millard Fillmore's Birthday
8 Beginning of National Nozzle Week
9 Gorter Nozzle Day
10 Foam Nozzle Day
11 Three Cheers For The Play Pipe
12 Use Your Favorite Tip Day
13 Open Butt Day
14 Last Day of National Nozzle Week
15 Hose Wagon Day
16 Day of The Door Opener
17 Benjamin Franklin's Birthday
18 Fenjamin Branklins Dirthbay
19 Box Alarm Day
20 Pinochle Appreciation Day
21 "Help Stamp Out Brass Poles" Day
22 C-shift New Year's Eve
23 C-shift New Year's Day
24 Celebration of The Hose Clamp
25 "Be Kind To Supervisors" Day
26 Dalmation Dog Day
27 Drill Tower Day — also Sick Leave Day
28 Anniversary of the First Rope Coil
29 William McKinley's Birthday
30 Franklin D. Roosevelt's Birthday
31 Salute Your Hydrants Day

Alec G. Noseworthy

Annual Report — Cleveland

THE latest Annual Report of the Division of Fire in Cleveland, Ohio, was recently received at the NFPA office. The report is a detailed presentation of all operations of the Cleveland Fire Department.

Chief William E. Barry now commands the 1,300-man fire department which includes 4 assistant chiefs, 31 battalion chiefs, 79 captains, 173 lieutenants, 1,026 firemen and a medical officer.

First line apparatus of the Cleveland Fire Department includes nineteen 750 gpm pumpers, nineteen 1,000 gpm pumpers, nineteen 1,250 gpm pumpers (including 2 quads), a 1,500 gpm pumper and two fireboats capable of 6,000 gpm output. There are also twenty-two aerial ladder trucks including twelve 100-foot and ten 85-foot size. Thirteen of the ladder trucks are the single chassis type and nine are the tractor trailer combination.

FIRE SERVICE MEETINGS

JANUARY

Maryland:

JANUARY 26: Del-Mar-Va Volunteer Firemen's Association, regular meeting, Greenbackville, 2:00 P.M. Contact George E. Mayer, secretary, Easton.

Michigan:

JANUARY 19: Michigan State Firemen's Association, annual executive board meeting, City Hall, Clare. Contact Stirling Garrow, secretary, 816 Oak Street, Port Huron.

New York:

JANUARY 16: Hudson-Mohawk Volunteer Firemen's Association, regular meeting, E. F. Hart Hose Company, Rensselaer. Contact W. J. Hopmeier, secretary, RD No. 5, Box 202, Schenectady.

Ohio:

JANUARY 20: Wayne County Volunteer Firemen's Association, regular meeting, Shreve. Contact Frank E. Burns, secretary, 34 Bellevue Avenue, Rittman.

JANUARY 30: Stark County Firemen's Association, regular meeting, Jackson Township No. 1. Contact Clyde Blackstone, 4753 Navarre Road, S.W., Canton 6.

Rhode Island:

JANUARY 29: Pawtuxet Valley Firemen's League, regular meeting, Anthony Fire Department. Contact Gail Birkbeck, secretary, 154 Wilbur Avenue, Oaklawn, Cranston.

FEBRUARY

California:

FEBRUARY 21: Marin County Association of Fire Departments, regular meeting, Sausalito. Contact W. H. Lane, secretary, 74 Vendola Drive, San Rafael.

Colorado:

FEBRUARY 18: Northern Colorado Fire Fighters Association, regular meeting, Boulder Rural. Contact Chief William Louisberg, Rt. 2, Box 298, Boulder.

Delaware:

FEBRUARY 9: Del-Mar-Va Volunteer Firemen's Association, 2nd annual Chaplain Day, Christ Methodist Church, Central Avenue, Laurel. Contact G. E. Mayer, secretary, Easton.

Maryland:

FEBRUARY 2: Allegany and Garrett Counties Volunteer Firemen's Association, regular meeting, Flintstone. Contact C. C. Zembower, secretary, P.O. Box 96, La Vale.

FEBRUARY 7: Caroline County Volunteer Firemen's Association, regular meeting, Federalsburg. Contact W. H. Bounds, secretary, Denton.

FEBRUARY 12: Prince Georges County Volunteer Firemen's Association, regular meeting, Seat Pleasant. Contact Floyd Heimer, secretary, Branchville.

FEBRUARY 12: Talbot County Volunteer Firemen's Association, regular meeting, Oxford Volunteer Fire Department. Contact C. R. Turner, secretary, St. Michaels.

FEBRUARY 14: Kent and Queen Anne's Volunteer Firemen's Association, regular meeting, Church Hill. Contact Robert Dempsey, secretary, Kennedyville.

FEBRUARY 20: Baltimore County Volunteer Firemen's Association, regular meeting, English Consul Volunteer Fire Company. Contact Vincent J. Smith, secretary, 123 Second Avenue, Lansdowne 27.

FEBRUARY 20: Washington County Volunteer Firemen's Association, regular meeting, Juniors Fire Company, Hagerstown. Contact L. E. Purdham, secretary, 516 W. Franklin Street, Hagerstown, 21740.

New Jersey:

FEBRUARY 20: Gloucester County Firemen's Association, regular meeting, Independents of Westville. Contact Walter H. Mattson, secretary, Gibbstown.

New York:

FEBRUARY 11: Cayuga County Volunteer Firemen's Association, regular meeting, Aurelius (East). Contact Bruce Chappell, secretary, Cayuga.

FEBRUARY 13: Madison County Volunteer Firemen's Association, regular meeting, Erieville. Contact Donald Burke, secretary, 51 Fenner Street, Cazenovia.

FEBRUARY 14: Rockland County Volunteer Firemen's Association, regular meeting, Relief Hose Co. No. 3, Haverstraw. Contact John A. Boyan, secretary, 36 Hester Street, Piermont.

FEBRUARY 19: Firemen's Association of Chemung County, regular meeting, Southport. Contact Clarence Lauper, secretary, 1497 Pennsylvania Avenue, Pine City.

Ohio:

FEBRUARY 27: Stark County Firemen's Association, regular meeting, Wilmot. Contact Clyde Blackstone, secretary, 4753 Navarre Road, S.W., Canton 6.

Pennsylvania:

FEBRUARY 7: Fayette County Firemen's Association, regular meeting, Dawson. Contact F. R. Gustafson, secretary, P.O. Box 126, Connellsville.

FEBRUARY 18: Perry County Firemen's Association, regular meeting, Newport. Contact Frank L. Fry, secretary, New Bloomfield.

Rhode Island:

FEBRUARY 11: Woonasquatucket Valley Firemen's League, regular meeting, Fruit Hill. Contact George J. McAvoy, secretary, 12 Jackson Avenue, Johnston 9.

FIREMEN'S TRAINING IN THE MONTHS AHEAD

Connecticut: The College of Agriculture, University of Connecticut, Storrs, will be the site of the 10th Annual Connecticut Fire Officers' Conference, April 14–16 and the 10th Annual Connecticut Fire Marshals' Conference, April 28–30. The 23rd Annual State Fire College will be held June 8–12 at the New Haven Fire Training School. For details, write Andrew J. Flanagan, Supervisor, Firemen Training, Connecticut State Department of Education, State Office Building, Hartford.

North Carolina: The following training courses are scheduled for 1964: North Carolina Staff and Command School, Winston-Salem, February 24–27; Fire Inspector's Short Course, Greensboro, April 7–10; Master Mechanic's School (Sections 3 and 4), Greensboro, April 13–17 and April 20–24; Municipal Fire Administration Course, North Carolina State College, June 1–5, June 15–19 and June 29–July 3; Fire Alarm Superintendent's Short Course, North Carolina State College, July 7–10; and Petroleum Fire School, North Carolina State College, July 20–24.

BUYING NEW EQUIPMENT?

Consider the products advertised in this issue.

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this month's *News and New Products*

Protects Extinguisher Record

Bedford Products, Inc., P.O. Box 36, Roanoke, Virginia, has a transparent plastic protector for fire extinguisher record cards. Available in three sizes, the protector is useful for data cards on machinery, valves and switches. Catalog and sample are free on request.

The *National Association of Fire Equipment Distributors* has been formed, with headquarters at 1718 Sherman Avenue, Evanston, Illinois. Mr. J. A. Proven is executive manager and secretary. Officers for 1964 are J. W. Bower, president (*Atomic Fire Equipment Co.*, Cleveland, Ohio), Carey Nelson, first vice president (*Houston Fire & Safety Equipment Co.*, Houston, Texas), C. R. "Pat" Fredriksen, second vice president (*Fredriksen & Sons Fire Extinguisher Co.*, Chicago, Illinois), Jack Kappelman, treasurer (*Economy Fire Equipment & Supply Co.*, Chicago, Illinois). Purpose of the association is to establish higher standards of fire equipment sales and service.

"What's This Alternator Talk All About?" is the title of a free, 8-page cartoon booklet prepared by *Leece-Neville Company*, 1374 East 51st Street, Cleveland 3, Ohio. . . . *American LaFrance* has just released a new 88-page Fire Department Hose & Supplies Catalog No. 311. For your copy, write *American LaFrance*, Box 333, Elmira, New York.

A complete line of easy-to-install alternator system kits to replace existing 12-volt generator systems on 1955–1962 cars and trucks is now available through *Leece-Neville* central distributors and automotive parts dealers. . . . *Ferno-Washington, Inc.*, Greenfield, Ohio, has a new brochure illustrating its complete line of ambulance and disaster equipment. . . . A portable, high-expansion foam generator for extinguishing confined area fires is described and illustrated in bulletin No. 1203–8. Write *Mine Safety Appliances Company*, 201 North Braddock Avenue, Pittsburgh 8, Pennsylvania.

Winning "Dinosaurs"

Top trophy-winning team of the Central New York State Drill Team Association is the West Albany Fire Company No. 2. The Association started its tournament evolution contests in 1962 and in that year the West Albany "Dinosaurs" won twenty trophies plus the Association Trophy. In 1963 the team won nineteen trophies plus the Association Trophy, competing against twenty other fire companies in the state. The team was organized by Assistant Chief Sam Bisognano and Captain George Klinger, Jr. The 1963 team was captained by Kenneth Davis.

Back in June, 1960, the Maxim Motor Company, Middleboro, Massachusetts, delivered a 750 gpm pumper to West Albany. Members of the team are shown here with this truck which was used in the competitions.

New Sales Manager

Matthew M. McCabe has been appointed National Sales Manager of F. N. McIntire Brass Works, Inc., Cambridge, Massachusetts. The appointment was announced by Ralph G. Fritch, President of the corporation. McCabe will be responsible for coordinating sales in the New Engand area and will also work with other U. S. distributors.

IRFAA Officers

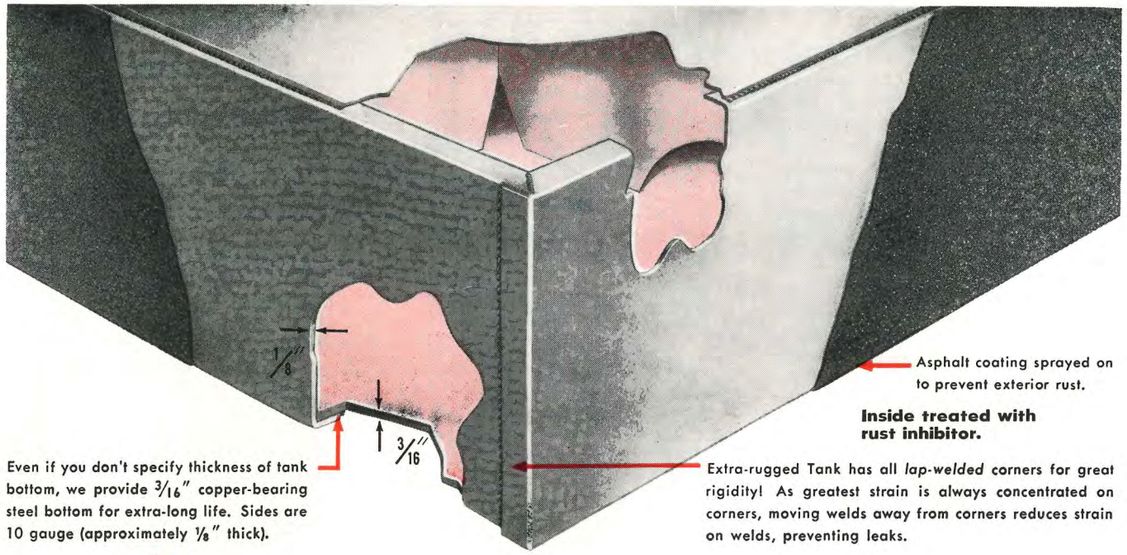
Officers of the International Rescue and First Aid Association were elected during its recent Sixteenth Annual Conference in Columbus, Ohio. For the year 1964 the president will be Ted W. Hart, Plainfield, New Jersey. First vice president is Paul O. Metcalfe, Greeneville, Tennessee. Jack B. Liberator, Columbus, Ohio, is second vice president, Walter S. Ballantyne, Windsor, Ontario, Canada, is secretary, and Walter S. Raebel, Park Ridge, New Jersey, is treasurer.

The IRFAA is planning to hold its 17th Annual Conference at the Americana Hotel, Miami Beach, Florida, August 6–8, 1964.

Edward L. Falls, Jr., is the new eastern area sales manager for *Motorola, Communications & Electronics, Inc.*, Chicago 51, Illinois. . . . *Onan, Division of Studebaker Corporation*, announces appointment of *Gordon F. Bennett, Inc.*, 945 Niagara Street, Buffalo, New York, as distributor in the Buffalo area.

New Hose Reel Catalog

Clifford B. Hannay & Son, Inc., Westerlo, New York, has a new, 12-page, illustrated catalog containing specifications, prices, dimensional drawings and ordering instructions on all Hannay fire fighting hose reels. Write manufacturer for your free copy.



Asphalt coating sprayed on to prevent exterior rust.

Inside treated with rust inhibitor.

Even if you don't specify thickness of tank bottom, we provide 3/16" copper-bearing steel bottom for extra-long life. Sides are 10 gauge (approximately 1/8" thick).

Extra-rugged Tank has all *lap-welded* corners for great rigidity! As greatest strain is always concentrated on corners, moving welds away from corners reduces strain on welds, preventing leaks.

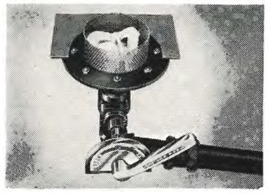
You get *more* superior features on American Fire Trucks even though you don't actually specify them...

You can order American Fire Apparatus with confidence that *our* rigid standards of quality *carry far beyond* your written specifications.

For example, corners and seams on all American booster tanks are *lap-welded* — not corner welded. This greatly increases rigidity — resists twisting strain — prevents troublesome leaks. *And whether you think to specify or not, all* tank bottoms are 3/16" copper-bearing steel for extra years of trouble-free life. Remember — 3/16" is *one-and-one-half times thicker* than the 10 gauge bottoms usually furnished.

Other standard features include: Multiple drains on pump, all connected to a single, central valve — so a hurried fireman *can't* "forget" to open or close one of several drains.

These and other engineering extras that really count are always provided on American Fire Apparatus at no extra cost — even though *not* mentioned in your specifications! Make sure you get these superior features!



Tank Outlet Sump has large bolted flange — *eliminates* need for costly removable top and resulting gasket problems, or sloping bottom with reduced capacity. Anti-swirl baffles keep air out, prevent loss of prime, and insure complete tank drainage.

Contact your nearest American representative for full details.

Choose either midship or front-mounted pump.

Patented Rear Tank Filler is also Pressure Relief Valve when filling from hydrant. Opens for filling with buckets. Strainer catches debris.

American FIRE APPARATUS CO. "Always Pioneering with Better Engineering"

Main Office: Main Street Rd., Battle Creek, Mich. Plants at: BATTLE CREEK, MICH., MARSHALLTOWN, IA., STRATFORD, ONT.

YOU ARE A SAFEGUARD OF THE COMMUNITY!

THE TOWNSPEOPLE DEPEND ON YOU...

AND YOU CAN DEPEND ON PLECTRON

You as a volunteer fireman or member of a rescue squad can rely on PLECTRON Radio Tone Alerting Systems to give you superior performance over other types of emergency alerting equipment.

Response to PLECTRON alerts is IMMEDIATE...the moment the initial alarm is sounded, the alert is transmitted instantly to part or all receivers according to your requirements. The TONE ALERT is immediately followed by VOICE INSTRUCTIONS...you're on your way even while receiving full details. You are alerted **faster** — get to the scene **faster** — with PLECTRON!

PLECTRON RECEIVERS

The CHIEF

The PATROL

The SENTRY

Always on hand, PLECTRON Receivers supply reliable alerting for personnel in home, office or shop. Tone activated by Single Tone or Plectron Duotone, PLECTRON Receivers provide immediate VHF-FM reception of voice message. Remote speaker extension also.

NOW AVAILABLE WITH DUAL CONVERSION

MOBILE CHIEF

PLECTRON MOBILE RECEIVERS

Convert from 12V-DC to 120V-AC for use in car or home by simply plugging on appropriate cable. Easily portable. Attractively designed in four colors.

- Designed to eliminate ignition interference.
- Single Tone or Plectron Duotone (in MOBILE CHIEF).
- Transformer powered; 12V-DC transistor power supply.
- Crystal frequency control – Single Conversion only.

PLECTRON MULTIPLE DECODER

- Complete remote control of any number of units.
- Starting or stopping any combination of units with tone signals.
- Weatherproof, rustproof cabinet for outdoor or indoor mounting.

The DECODER is available with a self-contained FM radio receiver for connection to land line or cable for controlling pumps, sirens, air horns, traffic signals, pipe line valves – any device which can be started, controlled or switched electrically.

NEW

FOR REMOTE CONTROL!

PLECTRON TONE GENERATOR

Designed particularly for use with communications consoles or where remote control of the generator from one or more locations is necessary. Generators are available to furnish nearly any combination of Single Tone or Plectron Duotone frequencies, according to customer's requirements.

PLECTRON offers you LOCAL SERVICE FOLLOW-UP and immediate shipment of REPLACEMENT PARTS. For more detailed information on PLECTRON Alerting Systems, or separate PLECTRON Components, write or call:

PLECTRON CORPORATION
Overton, Nebraska
Electronic Tone Control Specialists