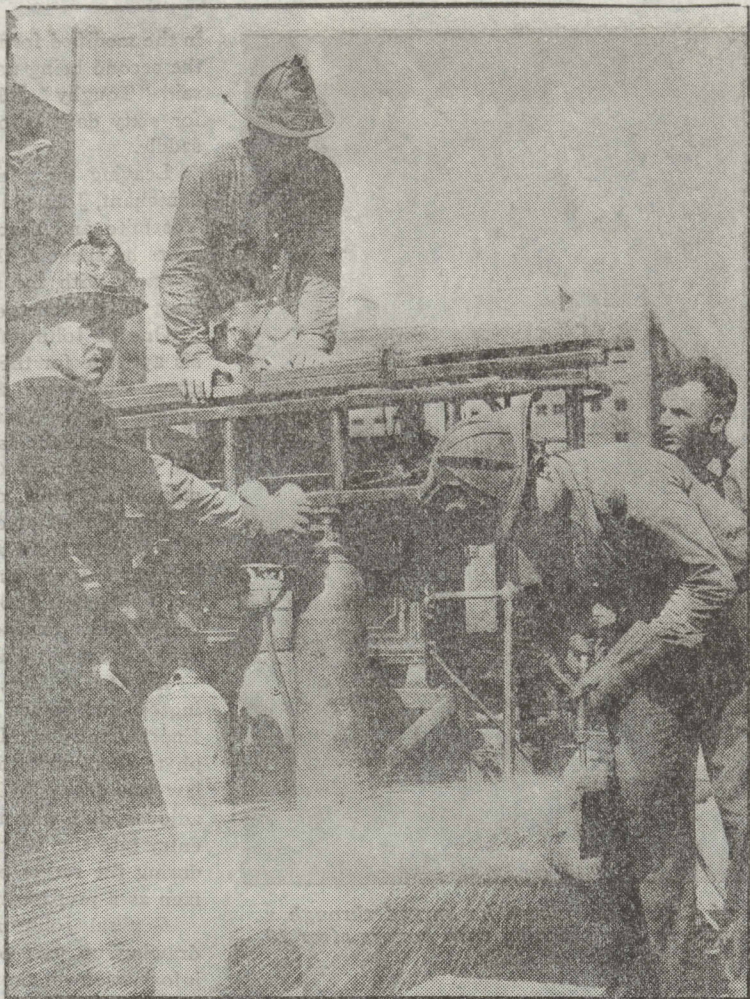


SCIENCE GOES TO FRONT IN WAR ON FIRE

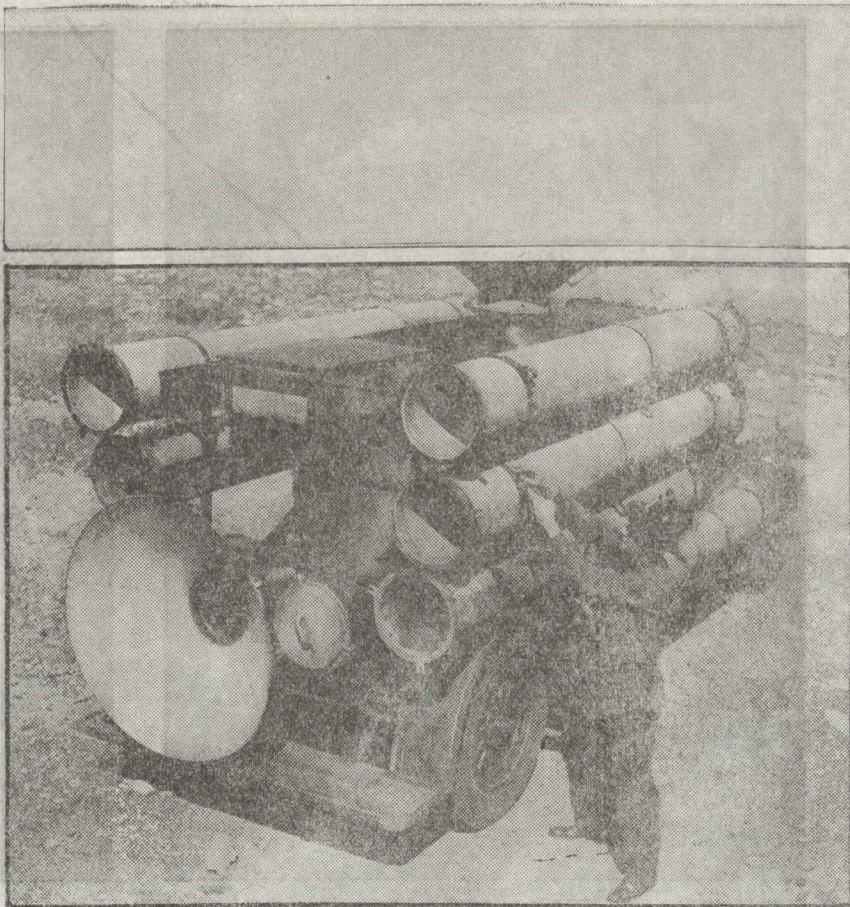
Masks, Torches, Rams and Smoke Ejectors Among Modern Weapons

By Joseph U. Dugan

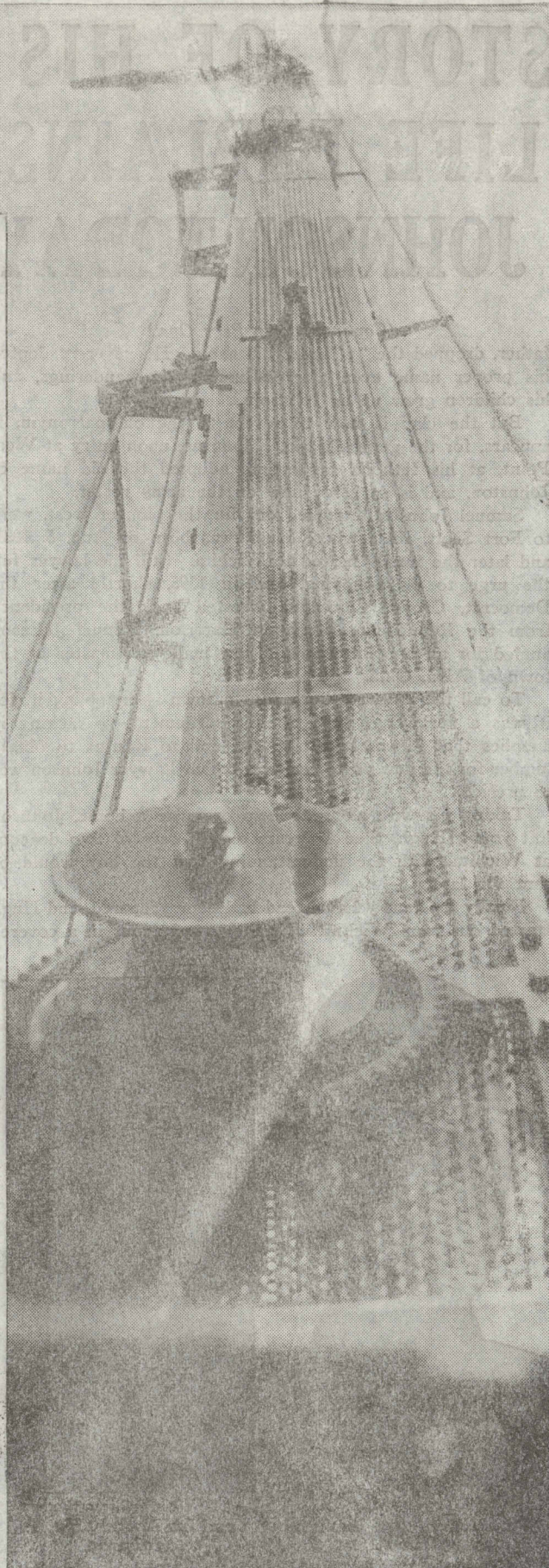
FIVE-ELEVEN ALARM. Screech and wail of sirens mingled with the clamor of fire gongs and the roar of motors opened wide. Street car, truck and automobile traffic held back as the big, red fire trucks go thundering by, careening dangerously around corners, weaving recklessly through narrow lanes of traffic. Throughout the city from all directions the pumper engines, hook and ladder trucks, hose trucks, ambulances and trucks bearing the many pieces of modern, special equipment are moving toward the fire. The companies whose stations are nearest the blaze are speeding directly to the scene, the others are moving up to take the place of the companies at the fire and to be ready to join them if special alarms for additional equipment are sounded. In spite of



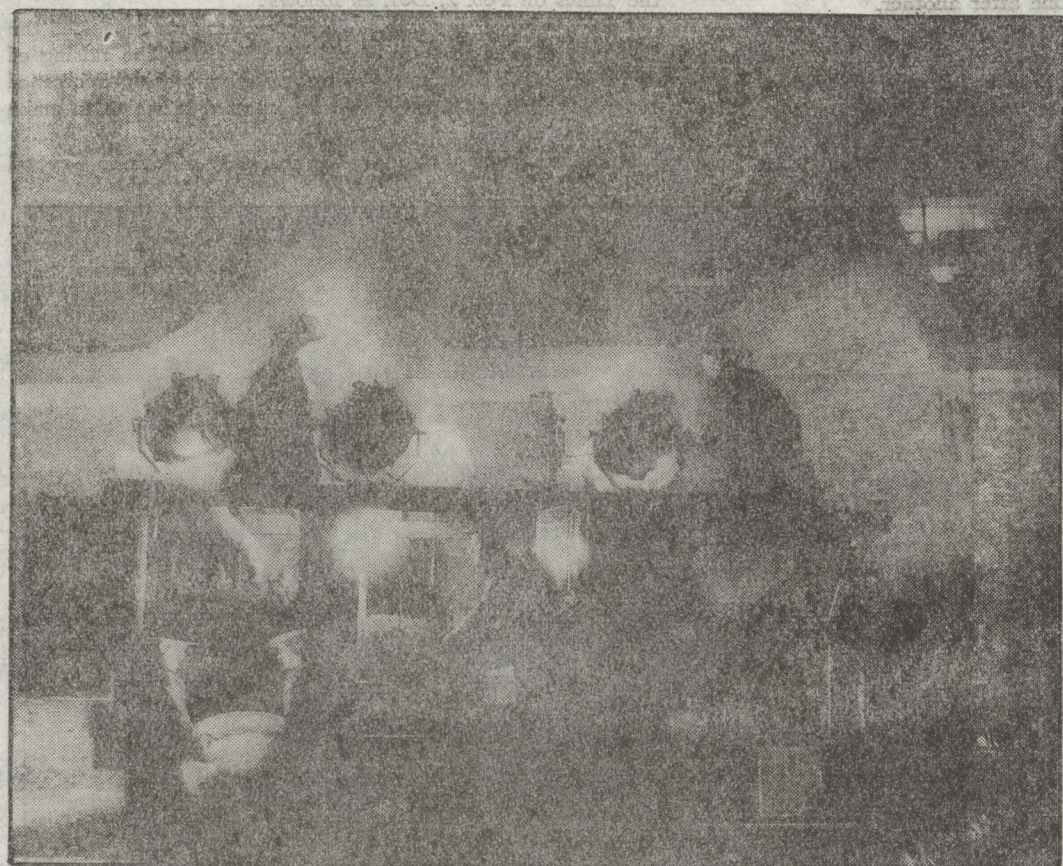
It often is necessary to cut through heavy steel beams quickly in modern fire fighting. The high pressure acetylene torch, shown here, makes short work of a girder.



When dense smoke hampers firemen inside a building, this strange looking equipment is brought into action. It is the smoke ejector, a giant suction engine, which quickly clears a basement or other enclosed area of smoke.



One of the most powerful of the newest weapons against fire is the water tower. From a height of 80 feet it throws 1,200 gallons a minute.



A battery of 1,000 watt flood lights helps in fighting night fires.

seeming confusion, a big city fire department in action, from the time an alarm is turned in until the last spark at the fire has been extin-

often necessary, for example, for firemen to break through heavy steel beams. Squads equipped with high pressure acetylene torches accomplish this work quickly. In the old days tearing a hole in a wall was accomplished, slowly and inefficiently, with axes and pikes. Today a hole of any size is smashed through brick or wood in a few minutes with a power battering ram, operated by compressed air.

At night fires, firemen of today are aided by batteries of huge flood and searchlights operated with electric current generated at the scene by compact power plants on trucks. No longer must firemen face probable death when going into gas and smoke filled buildings. They are provided with efficient gas masks. If the fire is in a smoke filled basement, or other comparatively small enclosed area, the smoke ejector truck is brought into action. Its powerful suction engine quickly clears the smoke out through a huge,



Before the world war fire departments were experimenting with gas masks. Capt. William Maloney is shown wearing the newest type, especially designed for firemen. It is quite similar to the military gas mask and has saved the lives of many firemen.

detachable suction pipe. Higher water pressure has greatly increased fire fighting efficiency. In a matter of seconds tons of water can be poured into a blazing building, from below by hose lines and from above by use of the water tower, a high pressure standpipe which can be raised to a height of



These firemen are using the power battering ram to tear a hole through a brick wall in a hurry. Compressed air supplies the driving force.

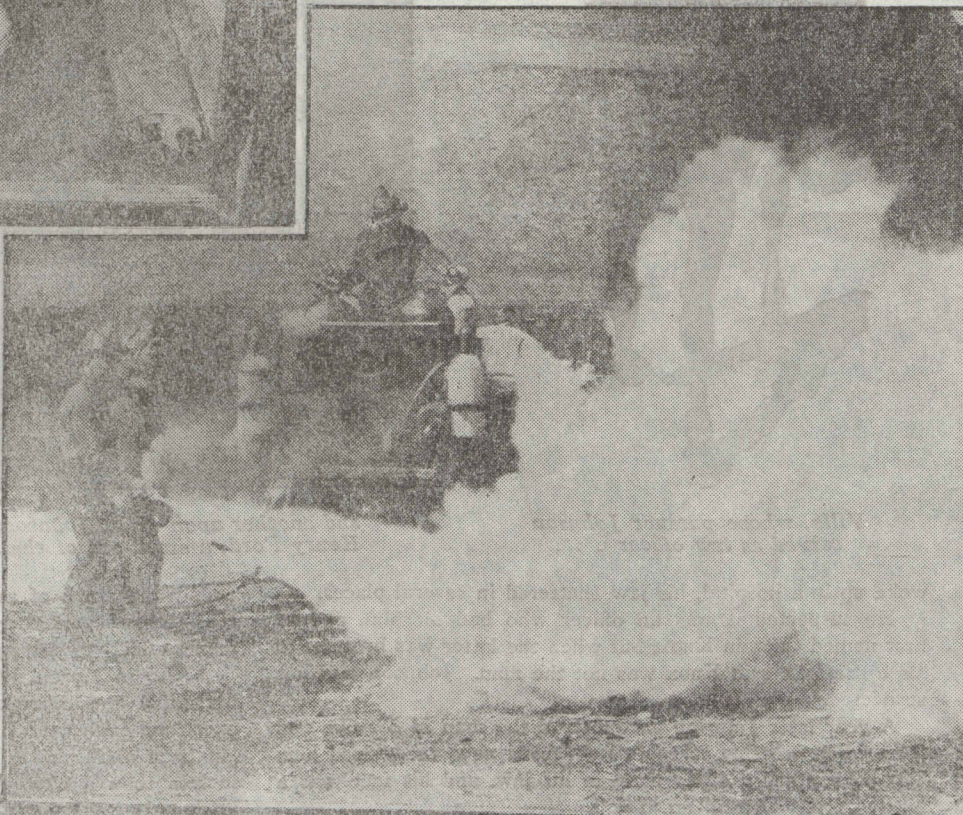


Interior of a fire department ambulance showing a victim receiving first aid from the trained attendant.

guished, is one of the finest examples of organization, co-ordination, discipline and efficiency.

In the last twenty years fighting fire has become highly technical. The scientific achievements of the machine age have been applied to the warfare against this common enemy in full measure. First came complete motorization of the fire trucks. Then, gradually, new and more efficient apparatus was developed. The equipment of a modern fire department is today, comparable to that of an army.

Some of the latest additions to modern fire fighting equipment, in use by the Chicago fire department, are pictured on this page. Many of the devices illustrated here were developed to meet changing conditions of building construction. It is



Oil and grease fires are quickly extinguished by this new gas spray method. One short blast from the gas here, pictured above, was sufficient to quell a large bonfire of gasoline and grease soaked waste. The gas tanks can be seen on the truck.



A fire resisting coat of rubberized fabric is the newest thing in protective clothing for firemen.



The inhalator and resuscitator squad is always busy at a big fire. This picture shows how firemen, overcome by smoke, are quickly revived by the oxygen machine. Victims more seriously injured are removed to hospitals in fire department ambulances.