

---

This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

Google™ books

<https://books.google.com>





THE  
BOYS' BOOK  
OF FIREMEN

IRVING CRUMP

THE LIBRARY  
OF THE



CLASS K 352.3

BOOK C 8860

account of daring rescues and  
escapes which are crowded into  
for members of a big city's fire  
t.

DS 352  
C

PERMANENT LOAN  
LIBRARY DIVISION  
Minnesota Dept. of Education







**THE BOYS' BOOK OF FIREMEN**









### A Hook and Ladder Man in Training

Among other things he must know how to jump into a life net. Owen Ryan making a leap of 43 feet for the benefit of student firemen.

THE BOYS' BOOK OF  
FIREMEN

BY  
IRVING CRUMP

*WITH ILLUSTRATIONS*



NEW YORK  
DODD, MEAD AND COMPANY  
PUBLISHERS

UNIVERSITY OF  
BERNARD  
LIBRARY

COPYRIGHT, 1916  
BY DODD, MEAD AND COMPANY, INC.



TO VITAMIN  
ADOLESCENT  
VITAMIN

K352.3  
C88b0

TO  
MY FATHER  
ALWAYS AN ENTHUSIASTIC BUFF

APR 12 1905  
U.S. Bureau of Education  
Chicago

620154



## ACKNOWLEDGMENT

It is only through the courtesy and kind assistance of my many friends in the Fire Department Service that I am able to present some of the facts detailed in "The Boys' Book of Firemen."

Among those whom I have to thank for their efforts are Fire Commissioner Robert Adamson, Secretary Theodore Stitt, Department Chief John Kenlon, Deputy Chief Joseph B. Martin, Chief Thomas Larkin, Chief Edward J. Worth, Lieutenant William F. Kelley, Alarm Dispatcher William A. Martin, Chief's Aid Owen Ryan and many others who wear the uniform of the fire-fighters.

Photographic credit is also due Albert Dreyfous, the photographers of The New York Edison Company, and Edward F. Croker, former Chief of the New York Fire Department.

I. C.

East Orange, N. J.





## CONTENTS

CHAPTER	PAGE
I CHEATING THE FLAMES . . . . .	1
II FIGHTING THE FIRE MONSTER WITH THE EN- GINEMEN . . . . .	27
III "ROLLING" WITH THE "HOOKSIE" MEN . . .	56
IV WHEN THE FIRE BOATS ARE CALLED . . . .	86
V THE MEN WHO GO IN UNARMED . . . . .	111
VI MILE A MINUTE RESCUE MEN AND OTHER AIDS TO FIRE FIGHTERS . . . . .	135
VII THE NERVE CENTER OF THE FIRE DEPARTMENT	166
VIII THE FORCE THAT CRUSHES THE FIRE DEMON	192
IX SMOKE-EATERS IN THE MAKING . . . . .	214
X MEDAL OF HONOR MEN . . . . .	239



## ILLUSTRATIONS

A Hook and Ladder Man in Training . . .	<i>Frontispiece</i>	
	FACING	
	PAGE	
At a Night Fire . . . . .		14
The Very Newest Type of Engine . . . . .		34
A Fire that Is Hard to Fight . . . . .		46
“Hooksie” Boys at Work . . . . .		64
Two Fire Boats at Work . . . . .		80
On Board the Fire Boat <i>Thomas Willett</i> . . . . .		92
Near View of the Fire Boat <i>Thomas Willett</i> . . . . .		104
The High Pressure Wagon . . . . .		118
The Steamers Are Still Used However . . . . .		118
The Modern Hook and Ladder Truck . . . . .		130
Where the Water Tower Is Needed . . . . .		146
A Boat Line at Work . . . . .		160
High Pressure Under Test in New York . . . . .		184
Hard at Work at a Hot Blaze . . . . .		204
Hardships a Fireman Must Face . . . . .		226
A Winter Fire Scene in Philadelphia . . . . .		250



## INTRODUCTION

Of all the men who are called upon to risk body and limb for the protection of the life and property of others those who face the hardest task of all are the firemen. They must be as courageous as a lion, daring almost to the point of utter recklessness, and true to the core. Never to my knowledge has a man with the faintest trace of cowardice ever become a "blue shirt." For twenty odd years it has been my privilege to command fire-fighters and in all that time I have never found one who flinched at anything in the line of duty no matter how great the sacrifice.

Modern inventions and new ideas in combating the flames have, of course, made the work of the firemen to-day less difficult, but for all that the smoke-eater is still the smoke-eater. He must take just as much punishment now as the firemen of two decades ago, and he must face just as many perils and hardships as his predecessors in uniform. The author of this

**volume has pictured the fireman as a brave man —“Thoroughly American”—and in making this statement, he does not in any way overestimate their qualities. They deserve all of this credit and perhaps just a little bit more.**

**JOSEPH B. MARTIN,  
(Smokey Joe)**

**Deputy Chief New York Fire Department.**

**THE BOYS' BOOK OF FIREMEN**





---

# THE BOYS' BOOK OF FIREMEN

## CHAPTER I

### CHEATING THE FLAMES

THE telephone on the City Editor's desk jangled, madly. He jerked the receiver free from the hook, impatiently, and fairly shouted.

"Hello! Hello! What do you want? I'm busy. Who? Yes, yes, Davis, what do you want? I'm—Eh, what's that? Four alarm fire—Bay Street Warehouse in flames? Yes, we got the last alarm here in the office a few minutes ago. Big damage, you say. Lots of action, too, eh? Well, go after it. Get a real fire story. I'll send photographers right out. You want another man to help you cover it? All right he'll be there. Get a good story now. Have most of it in by nine o'clock to catch the early country run. Go after it, Davis. G'by."

The receiver went back to its place with a

## 2 THE BOYS' BOOK OF FIREMEN

bang and "Boss" Watkins, night city editor of the *Morning Mail*, peered around the all but deserted editorial rooms over the rims of his glasses. It was seven o'clock and nearly all the reporters who were not out to dinner had already been assigned to their night's work, so that all "Boss" Watkins saw before him were deserted typewriter desks and loafing copy boys. Only two men of the city staff were in the room. Griffith, the man who specialized on political stories, was one and I was the other.

It was quite evident that the city editor was disappointed at being so short handed in this emergency. Griffith had very important work to do and his typewriter was rattling loudly. I was the only man available to assist Davis, the Police Headquarters reporter, in securing a story about the big fire. "Boss" Watkins was left no alternative.

"Look here, son," he snapped at me. ("Boss" Watkins called every man in the *Mail* office, son, even to the gray-haired and stoop shouldered janitor who was old enough to be his father.) "Look here, son, you don't

know very much about New York, or the New York Fire Department, do you?"

"Not very much, sir," I assured him, for, you see, I had only been in the city about a week, having just come from the staff of a little paper in a town in northern Vermont, where the only fire department we knew anything about was composed of untrained volunteers.

"Huh, that's too bad. But don't let that be a handicap, mind you. Davis, our Police Headquarters man, just called for an assistant to help him cover a big four alarm fire down in Bay Street, and you're the only man I can send."

"Here's a fire badge and a police card," he said, after rummaging through his desk a moment; "now go over to Bay Street as fast as you can sprint. Hurry now. You'll find Davis somewhere inside the fire lines. Locate him and report that I sent you. He'll give you instructions. Tell him I want a good story by nine o'clock for the early country run. And I want the whole story completed by midnight with all the details the two of you can get. I'll

#### 4 THE BOYS' BOOK OF FIREMEN

have Sullivan, the rewrite man, ready to take your story over the telephone whenever you call. Make it a good one, now. Remember what I say. And above all things, hurry."

He slapped the top of his desk with his hand by way of emphasizing the last remark. And as if that was the starter's pistol in a mile run I jumped forward, pulling on my hat and coat as I ran.

Down the stairs I rushed and out into Park Row, breasting the crowd of men and women who were hurrying toward the Brooklyn Bridge. Once free of them I sprinted across the street and through City Hall Park in the direction of the towering Woolworth Building and toward Bay Street. In the distance, at a point where the street met the water front, was the fire.

While still five blocks away I could see the great clouds of smoke rolling skyward, and long tongues of flames upleaping. I could hear the roar of the fire, too, and the hissing and pounding of the water from the hose as the streams splashed into the burning building.

And mingled with this was the sound of a droning whistle, which I learned later, indicated that a fireboat was pulling into a slip near the fire and was getting ready to take part in the battle.

Sights and sounds such as these spurred me on, and, buttoning my coat snugly about me, I redoubled my speed. As I drew nearer the fire I could see that a huge crowd of people had gathered outside the fire lines, which had been established by the police a block away from the conflagration on all streets leading to the square in which the flames roared, thus giving the firemen plenty of room to work. Also, this prevented the bystanders from becoming injured through explosions, or from falling walls.

I had all that I could do to work my way through the mass of people who had gathered to witness the spectacle, and, when I finally reached the inner edge of the crowd and tried to go on, I was seized by two burly policemen who sought to hustle me back where I belonged. But I had had forethought enough to put my police card in my hat and my badge in a con-

## 6 THE BOYS' BOOK OF FIREMEN

spicuous place on my coat, and, after a glance at these credentials, the blue-coated officers allowed me to pass. I was then inside the fire lines, and before me on Bay and River streets were picked battlers of the greatest fire department in the world, pitting their training and experience against madly swirling flames let loose by the ever destructive fire monster.

On the Bay Street side of the fire-ridden block was a huge, five-story warehouse of brick, the entire western end of which was all in flames. Beyond that in River Street I could see great shafts of flames hurled upward, and I knew that buildings on that thoroughfare were, also, in the grasp of the fire. Hundreds of yards of snakey black hose, throbbing with the streams of water that coursed through them, as if alive, were intertwined across the street in front of the fire-swept building. And here and there along the curb connected to a high-pressure hydrant stood a high-pressure wagon (the modern engine now used in the high-pressure districts of the city), their deck pipes, like miniature quick-firing guns, throw-

ing water into the flames. Two big motor-driven hook-and-ladder trucks were in evidence in Bay Street, and on the corner of River Street was a tall, giraffe-like water-tower, pouring a thundering stream into the top floor of the warehouse.

Helmetted and rubber-coated firemen seemed everywhere. Some carried axes or pike poles, while others rushed here and there, carrying out the orders of their officers. At various points along the street were hose crews, groups of three or four men gathered around the nozzle of a hose that was hurling a stream through some of the iron-barred windows of the warehouse. There were ladders against the building, too, and hose crews had mounted these and were sending streams into the fire through the upper windows.

What astonished me most of all was the fact that several of these lines of intertwined hose led through two doorways into the big building itself. I could not believe that men had actually gone into the fire-swept structure to fight the flames. But I soon learned that this



## 8 THE BOYS' BOOK OF FIREMEN

was true. Indeed, at the time I arrived there were three separate groups of men with lines into the building trying valiantly to keep the fire from spreading toward the eastern end.

All these things I saw at a glance while picking my way through the tangle of hose lines in the street, for my duty at the fire was to find Davis and report to him, and no matter how great was the temptation to linger a moment or two to observe details, I must first carry out "Boss" Watkins' order. I satisfied myself, however, with the fact that so soon as I had reported to Davis I would have plenty of opportunity to look about me and gather details. That would be my *duty* then and I meant to fulfill it to the utmost of my ability.

So I hurried forward, headed for River Street, where the conflagration was at its height and where I felt certain I would find Davis and the rest of the newspaper reporters who were covering the fire for the other New York dailies.

The scene on the broad river front thoroughfare was impressive. There were gathered a half dozen high pressure wagons, three

hook-and-ladder trucks and another water tower; a searchlight wagon, with both its great white eyes flashing restlessly along the walls of the buildings looking for cracks, and several bright red automobiles that carried the various officers who were directing the firemen. Here, too, rubber-coated individuals were hustling about dragging heavy lengths of hose to new points of attack. Twelve streams of water were being hurled into the fire, which was literally gutting two brick buildings. All of these streams were being played from the street, excepting of course the one from the water tower.

And what was most interesting of all to me at that particular time was the fact that one of the big fleet of fire boats maintained by the New York Fire Department had nosed its way into a slip across the street from the burning building and "stretched in" several lines of big three-inch hose, the streams from which were pounding away at the fire with tremendous force.

Excitement seemed to be at a fever heat here, for, at this point, the fire was ugliest and the

## 10 THE BOYS' BOOK OF FIREMEN

men were having all they could do to keep it under control. They were battling, valiantly, and doing everything in their power to lay the angry fire monster. But still he hissed and roared, throwing forth great blankets of gray-black smoke, pierced here and there with shafts of flames that shot upward, illuminating the night sky and casting a weird light over the fire fighters and the big crowd of onlookers held back by the fire lines.

Here I found Davis and several other newspaper men. They were gathered about the white helmeted chief of the department and his aids when I made my appearance, and all had their attention riveted on the brick wall of one of the two buildings that were being devoured by the flames. I looked in the same direction and was quick to see that the wall was slightly bulged and that the heat had started several cracks. All the other fire fighters saw it, too, and hose crews, apparatus and hose lines were being cleared out of range as fast as possible, for it was quite apparent that in the course of a few minutes the wall would fall.

“It’ll curtain,” I heard one of the firemen near me say. This was Greek to me, for I did not know what a curtained wall was then. But the chief shook his head in answer to this assertion.

“No,” he said, “it’s coming straight out and that’s why I want everything clear. All hands back way! Hold onto your lines, men! She’s bulging! Here she comes! Look out! Back, men! Back away!”

We ran, and I, for one, moved with no mean speed, for I saw the great wall sagging toward us, perilously. Then down it came with a roar and a crash, and great sheets of flames, and volumes of smoke that had been pent up behind it, shot forth as from the doors of a hundred blast furnaces. I looked back in awe, and this increased to horror at what I saw. There in the street, very close to the spot where we had all been standing, and not ten feet from the outer edge of the mass of hot brick that had been the wall, lay the limp form of a man.

Hastily we all turned and rushed toward him.

## 12 THE BOYS' BOOK OF FIREMEN

I was the first one to reach his side, and when I got a close look at him, I was startled to behold that it was Davis, our Police Headquarters' man. Davis was unconscious, felled by a brick, flying from the mass that had toppled into the street, with weight enough behind it to crush out his life if he had been directly in its path. The situation frightened me; indeed, it horrified me. How close the man had been to death! He was still alive for I could feel his heart beating; but I knew from the gash in the back of his head that he was seriously injured. What could I do for him? What—? But while I tried to realize my duty, three white-clad men carrying a litter arrived; an ambulance surgeon and his stretcher bearers, called to the scene of the fire to take care of just such accidents.

They picked Davis up, carefully, and placing him on the stretcher carried him off in the direction of an ambulance which stood over by the entrance to one of the piers. And as I watched them go a new truth dawned upon me. Davis was gone and there was I, a mere cub

reporter, left alone to cover the big fire for the *Mail!*

I knew nothing about fires or the workings of the fire department; in truth, I hardly knew the name of the Chief of the Department who was directing the attack against the flames. And "Boss" Watkins wanted the first installment of the story for the country run at nine o'clock!

Hastily, I looked at my watch. It was eight o'clock. I had an hour to gather all the details that Davis had gathered and was now unable to impart to me. Here and there I hurried, interviewing fire captains, battalion chiefs, deputy chiefs, and even the head of the entire department. Policemen, too, I waylaid, and an occasional fireman who could be persuaded to fling a few words of information to me as he hurried on about his work. Gradually, by hit or miss, I got the details of a story and pieced them together. And a few minutes to nine I was in a telephone booth in a drug store, half a block from the fire, ready to give my information to the rewrite man in the *Mail* office.

"Boss" Watkins answered the call.

## 14 THE BOYS' BOOK OF FIREMEN

“Hello, son,” he said, “how’s the fire? What—what— How’s this? Davis in the hospital! Hit by a brick from a falling wall! Seriously hurt? Which hospital? You there alone? What, you want a man to help you? Can’t do it, son, can’t do it! Short handed now. Look here, you’ll have to cover it all alone. It’s a big job, mind you, but you’ve *got* to cover it alone. And you’ve *got* to have a rippin’ story about it, or—or—or— Well, you needn’t come back to the office if you don’t have one. Now give your news to Sullivan. He’s waiting. Give it to him in a hurry and get back on the job. Hear me?”

Indeed I had heard, and my heart was in my mouth. I had hoped that he would send an experienced member of the city staff down to take Davis’ place when he heard what had happened. But instead he had left it all to me. And I did not know any more about a fire story than I did about the secrets of the German War Office! I gave the rewrite man the information I had gathered, in more or less disjointed sentences, for I was nervous. But Sullivan did



### At a Night Fire

The Engine Men are aided by search-light wagons. These find cracked and sagging walls and give the "Blue Shirts" light by which to work.





not comment on it. He just listened patiently and said good-by when I had finished. And when I hung up the receiver I had to pause a moment and wipe the perspiration from my forehead, in spite of the fact that it was a rather brisk fall evening.

I realized very quickly that there was nothing for me to do but get back to the fire; to get back and look and listen, gathering in every detail that presented itself. I knew I had a hard job before me; but I consoled myself with the fact that I had telephoned in a great many details and that perhaps, there would very little more develop between ten o'clock and the time the fire fighters had the flames finally under control. I little knew how far wrong this surmise was to prove.

When I had finally traversed the half block from the telephone booth to the fire, I noted with a degree of satisfaction that the flames in the River Street section, where the wall had fallen, were not nearly so hot. It looked as if the conflagration here was dying fast. But it did seem to me as if there were more flashes of

## 16 THE BOYS' BOOK OF FIREMEN

fire darting from the big warehouse windows on Bay Street and there was no doubt but that the pall of smoke that rolled above the building was denser and heavier than when I had first arrived on the scene. This puzzled me. I thought that here the firemen had been waging a winning battle, but now they had moved the second water tower into position to cover the warehouse, and the network of hose in front of the building was infinitely thicker. I saw something else that interested me, too. White coated men wearing red fire helmets were working about in the glare of the rays from the searchlight engine. I learned later that they were the men of the Fire Patrol and that they were busy saving property in the warehouse.

When I arrived, several of them were rolling huge blue barrels, that looked like oil containers, through one of the doorways of the building. They seemed to be working madly, and firemen were helping them. In and out of the building they hurried, plunging through smoke so dense that I wondered they could go through it and remain alive. Now and then one stag-

gered out, coughing and choking, only to master himself with an effort and plunge back into the smoke again.

“What is it? Why are they so desperate?” I asked a member of a hose crew who was helping to play a line from the street through one of the iron barred windows of the warehouse.

“There are barrels of gasolene in there and movie films and other combustibles. The Fire Patrol has only just discovered 'em. They must get 'em out or there'll be an—”

There was no need for him to finish the sentence, for it happened just at that moment.

Inside the burning building I heard a dull rumbling roar. It seemed to me as if the street vibrated with the force of it, and, an instant later, a great fountain of blue and white flames tore the roof of the building asunder and there leaped skyward a giant column of fire. At the same time out of every window sheets of flames shot forth. In an instant the entire building was ablaze from end to end. The remaining barrels of gasolene had exploded.

Out through the doorways staggered the men

## 18 THE BOYS' BOOK OF FIREMEN

of the Fire Patrol and the firemen who had been operating lines inside the building. Some of them seemed literally blown into the street by the force of the explosion. Most of them held their arms over their faces as a protection against the terrible flames, while others just stood in the middle of the street and staggered, helplessly, until they fell in a heap, or into the arms of other firemen who saw their condition.

Just at that moment the Chief of the Department hurried by close to me and I plainly saw the look of horror on his face.

“Are they all out! Are you all safe?” he demanded of one of the half-dazed firemen who had come from the building.

“Out! No, no! They are in there! Ryan and his men. Four from Number 7 are in there yet. They were cut off. I saw 'em beaten back when the flames jumped. They are in that end, Chief, in that end, first floor.”

He moaned as he swung two badly burned hands back and forth in a vain effort to allay the pain in them with the cool night air.

“You’re burned? Get to the ambulance doctor,” said the Chief, crisply, after a glance at his hands.

Then the next instant the head of the department became a man of action.

“Seven’s men are cut off in that floor,” he snapped to an aid. “Get a couple of lines and try to push through that runway and drive the water over to the rear wall. Try to hold it. We may get them out on the other side. Rush along, men! There are our men, see ’em! On the ground floor behind the iron bars! In the last window there! Get that Rescue Company! Hurry them up, d’ye hear me! We need ’em! No one can live in there!”

Sure enough there was the entrapped hose crew of Engine Company Number 7. In the extreme end of the building, at the very last of the iron barred windows on the first floor, were the appealing faces and out-stretched hands of the four men who had been operating one of the hose lines inside the building when the explosion cut them off from the doorways with a solid and ever advancing sheet of flames. They

## 20 THE BOYS' BOOK OF FIREMEN

were trapped! They were crowded into the very farthest corner of the building, and one of the men was trying to break the iron bars with heavy blows from an ax. They were making their last stand, and, behind them in the depths of the building, red and sullenly growling, was the ever advancing fire monster! The men were penned in by merciless bars and it seemed only a question of a few minutes before the end would come!

The sight of it all was hideous. It nauseated me, and I wonder now what kept me from fainting. How could they be saved? They were prisoners and nothing on earth could help them so far as I could see. Those stout iron bars must be forced, or cut, and this I felt certain could not be done in time to save the firemen from the flames.

But as I stood there turning those horrible thoughts over in my mind a low slung red automobile truck came bowling down the street, the siren screaming loudly. Regardless of hose lines and everything else it rolled swiftly forward, while several men who rode in it

worked desperately with two tank-like affairs which the truck carried. This was the famous Rescue Company No. 1 of the New York Fire Department and the men whom I saw at work on the tanks were among the most daring smoke-eaters in the world.

So soon as the truck came to a standstill, the men leaped out. They had covered their faces with masks and their eyes with big goggles. Their hands, too, were sheathed in heavy gloves, and I wondered for the moment why they had armored themselves in this way. But I was soon to find out. The two tanks with connections of hose and a tiny torch-like pipe was removed from the truck in a twinkle and before I realized it the rescuers were at the iron barred window ready for work.

A light was struck and the short torch ignited. This was fed by gases from inside the tank and gave forth a hissing blue flame that sputtered venomously. In an instant I knew the weapon these firemen possessed. It was an oxygen-Blaugas torch, which generated so much heat that a complete cut could be burned in the



## 22 THE 'BOYS' BOOK OF FIREMEN

hardest steel in no time. With this appliance they meant to cut the iron bars and free the imperiled firemen!

But they must needs work fast to accomplish the rescue! Beyond the imprisoned men I could see the vicious flames flashing. It was growing hot and stifling in there and the smoke that was pouring from the barred window was thick and gaseous! Could the rescuers accomplish their work in time! Could they cut the iron bars and free the firemen before the flames claimed them! The situation was terrible! There were only three faces at the window now! One of the firemen had been overcome! He must be reached quickly or it would be too late!

The rescuers worked madly. The torch was applied to the base of the first bar. There was a hiss and a sputter and the bar grew red. Soon it began to glow white and terribly hot. Then of a sudden it melted in the section where the heat was being applied. The next one was attacked the same way. The process was swift and sure, but still it was a matter of doubt—

whether the rescuers could win in the race against the flames. Another of the four firemen had dropped and the others were coughing and gasping for a breath of fresh air.

But each bar was quickly severed. And by the time the third was cut away there was an opening large enough to permit a man to enter. Unhesitatingly one of the rescue crew hoisted himself through and into the inferno inside while water from a hose line, passed through the window, kept back the threatening flames. All four of the imprisoned firemen were helpless now and they must all be lifted out into the air. The rescuer inside bent to his task with energy and one after another the limp forms, arms and legs dangling, were passed through the hole. And as the last one was lowered into the arms of comrades and the rescuer climbed through the opening, a shouting that could be heard above the roar of the flames was raised by firemen and spectators alike, for it was one of the most daring rescues in the history of the fire department.

It had not been accomplished any too soon,

## 24 THE BOYS' BOOK OF FIREMEN

either, for hardly had the man from the Rescue Company cleared the window sill when, with thunderous crashes floor after floor began to give way and soon all that was left of the big building were four gaunt walls that hemmed in a perfect furnace of flames.

. . . . .

In the excitement of the rescue I had almost forgotten my mission at the fire. But when I saw the four limp firemen carried off to waiting ambulances, I realized that I must know their exact condition. I was not long in finding this out, however, for presently other men of the Rescue Company brought pulmotors from the truck in which they carried their equipment and, with these effective instruments, it was only a few minutes before all four men were revived enough to permit them to be taken to the hospital.

Then with these details and others that I gathered, I hurried back to the *Mail* office because it lacked but a half hour of midnight. For an hour after that I pounded away at my typewriter grinding out my first big fire story.

I wrote madly page after page of copy which the copy boys seized and rushed to "Boss" Watkins' desk. And when I finally finished I was half afraid to face the wise old city editor, for, although I had done my best, I had a vague feeling that the story was not all that it should have been. I wondered nervously whether it would be my last story for the *Mail*.

But my fears were allayed presently by "Boss" Watkins, who came to my desk, the copy still in his hands.

"Well, son," he said, "you surely witnessed some fire. It must have been a corker. And you didn't write a half bad story about it either, all things considered. You want to learn a little more about the Fire Department, though. I'll tell you what you do. Whenever you can find time, go browsing about among the firemen, learning all you can about their methods of fighting fires and everything else that you can pick up. Specialize on fires, hereafter, and I'll let you write more big fire stories. That will relieve Davis of a lot of work, who, by the way, is at the Benson Hospital with a

## 26 THE BOYS' BOOK OF FIREMEN

badly cut head, but not in a serious condition, thank goodness."

I followed "Boss" Watkins' suggestion and thereafter became a veritable nuisance in and about the various fire stations in the downtown section of the city. I made the acquaintance of every fireman I met, I asked innumerable questions, and filled several note books with choice bits of information, gathered among the "blueshirts," and now with all these notes before me I am going to set about writing a story—no, not a story—but facts—facts about the fire-fighters that every boy should know.

## CHAPTER II

### FIGHTING THE FIRE MONSTER WITH THE ENGINEMEN

**PUNISHMENT**—that is the single word the firemen use in summing up the gruelling, body wrecking tortures that the men of the engine companies undergo from smoke and flames while battling with the fire demon. But the word is far from adequate. In truth no single word can express the terrible strain these fire fighters experience in their work. It is as terrible as—well one fireman drew this comparison:

“Let a fellow, one very much bigger than you are, shove your head under water and hold it there a long, long time until it seems as if you just couldn’t stand it a second more. Then let him bring you up for a single breath of fresh air and shove you under again and hold you there until your lungs seem on the point of

## 28 THE BOYS' BOOK OF FIREMEN

bursting; until the blood pressure seems ready to split your head open; until your ears ring and your eyes bulge out under the terrible strain; until your chest aches and your muscles seem like lumps of lead; until your limbs are powerless and you begin to realize that the end is near. Then multiply these agonies by four and you can very nearly realize the punishment a fireman takes in a burning building."

The men of the engine companies are forced to take these punishments for the most part, for they are the battlers. They are the ones who fight the fire monster in his lair; who scorn his fiery tongues and scoff at his smoky breath. They are the ones who break their way into the burning buildings, dragging their lines of hose after them so as to be able to hurl tons of water into the vitals of the flames. They are the men who risk their lives daily to protect the great cities. Their part is to fight the fire, and fight they do with dauntless courage leaving the rescue work and the heroism to their brothers in uniform, the men of the hook and ladder companies.

Fire fighting with these men is more of a study than warfare is with the soldier. They have a dozen methods of attack to suit as many different fires, and they must be ready at a moment's notice, night or day, to undertake any one of these attacks and carry it through without a mistake. Mistakes in the fire departments are mighty serious and very often fatal. Many a fireman has lost his life because of a trivial error. And many another has lost his life even though no error was committed, for fire fighting at its best is dangerous work.

But to the men who make fire fighting their life's occupation, who join the fire department and stay in spite of the grueling punishments, these dangers are all part of the game. They are big, brave, brawny men for the most part who love the battle. Not one would flinch in the face of peril. Not one would shirk a duty though the end might mean death or burns that might cripple him for life. They are fighters through and through—true Americans every inch of them, fearless and determined. Indeed they have to be all of this and more, or they



### 30 THE BOYS' BOOK OF FIREMEN

would never be able to accomplish the work that firemen are called upon to do.

Night and day are alike to these men (as indeed they are alike to all firemen). There is no allotted time to sleep. They must catch their rest while they can. They may be called from their bed ten times in a night or they may be up from sunset to sunrise fighting flames. Two hours uninterrupted sleep to a fireman is a blessing, whether he gets it day or night. He must be always on the alert, listening for the strokes of the alarm gong, for on his quickness to respond to its call may mean the safety of millions of dollars' worth of property, and what is more, the lives of men, women and children.

But 'though there is no difference between daylight and darkness in the matter of activities, a fireman's day really begins at eight o'clock in the morning, when the whole company is called out upon the floor in full uniform. In an engine company there are twelve members. The commanding officer is the Cap-

tain, and the next in rank is a lieutenant. Then come two engineers and firemen of the first, second, third or fourth grade.

At eight o'clock the gong strikes and the company assembles on the floor for roll call and inspection by the captain. During these formalities the commanding officer reads all orders he desires carried out during the day, and delivers any new instructions. During the period of inspection each man's uniform is examined carefully to see that it has been kept neat and clean. Shoes, belts, etc., are gone over and all department property entrusted to the men is closely examined.

Then at a command the inspection is ended and the men, after saluting their superiors, break rank, some going out to breakfast while others don working clothes and begin to clean up about the station, attending to engines or high pressure wagons, or to horses, if it happens to be a company where those faithful old animals are still in use. But always while they work they are on the alert. Ever are their ears

## 32 THE BOYS' BOOK OF FIREMEN

waiting to hear the first stroke of the "joker," as the alarm bell is called by the firemen. And presently they hear it.

Click (as the electric circuit opens) then, ding, ding, ding, ding, ding, ding—ding, ding, ding, ding, ding—ding, ding, ding. Once more the call is repeated and then it is taken up by the big gong which bangs it off in deep ringing tones. The man on watch shouts, "653—Amsterdam Avenue and 59th Street." Every man in the station has dropped what he had in his hand and taken his place at the apparatus. Men who have been sleeping in the dormitory upstairs leap out of bed with a bound, and, before the big gong starts tolling off the numbers, they have appeared on the apparatus floor via the several brass poles down which they come sliding with a rush.

"Box 653—Amsterdam Avenue and 59th Street" cries the commanding officer, echoing the call of the house watchman.

By this time every man is ready. The drivers of the engine and hose wagon have cranked their motors. The heavy engines start

with a roar; the men swing to their places and the house watchman opens wide the big double doors.

“Go!” the captain shouts, as he swings into his place on the hose wagon, and with a bankety-bang-bang-bang-bang of the giant motors, the engine rushes into the street and the hose wagon follows. Then with sirens shrieking, bells clanging, and whistles calling, the two big machines start on their mad rush for the scene of the fire, the engine pouring forth clouds of sparks and black smoke and raising a din that brings traffic to a halt blocks ahead.

All streets are cleared for the engine company. Wagons, automobiles, street cars, push carts and even pedestrians stop in their tracks until these flying machines have rushed by. Traffic policemen see that everything is at a standstill for the engine companies have the right of way down any street they choose.

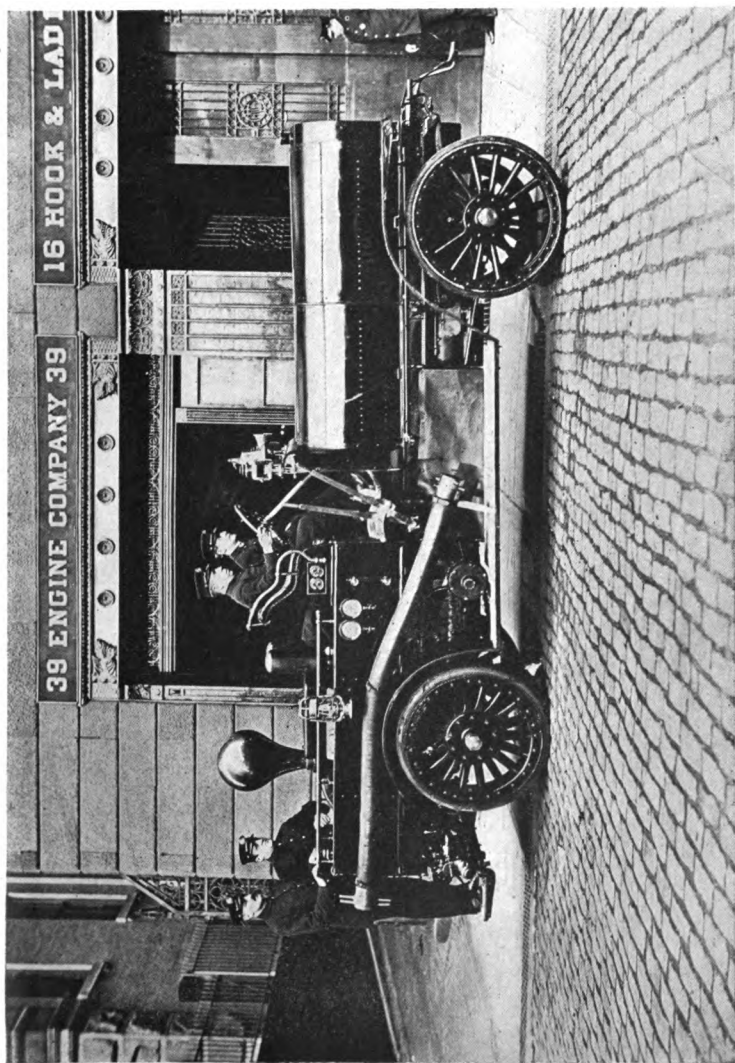
And while these big machines are rushing along at breakneck speed the firemen on the hose wagon are pulling on their boots and rubber coats with little regard for the perils of

## 34 THE BOYS' BOOK OF FIREMEN

their ride. They are calmly preparing for the battle. They are getting ready to give the fire monster another tussle. They are donning their armor for the attack.

How will they begin their fight? That will depend entirely upon the fire. One glimpse at the threatened building and every man of the company knows what part he must play in the affray. Around a corner sways the engine, followed a moment later by the lurching hose wagon. There is the fire swept building. A four story brick structure, smoke pouring from the third and fourth floors. The plan of attack is decided in an instant. The big engine comes to a stop in front of a hydrant, almost across the street from the fire. The company is the first to arrive on the scene and by regulations takes charge of the fire; the captain automatically in command of the whole situation until a superior officer, a Battalion Chief, makes his appearance.

“Stretch in” comes the order. But it is hardly needed for the men have dropped from



The Very Newest Type of Engine  
The motor under the long hood drives the Engine to the fire and operates  
the pumps that force water through the hose lines.



## FIGHTING THE FIRE MONSTER 35

the hose wagon in a flash, and already lengths of hose are being drawn out.

One fireman looks aloft.

“Third and fourth floors,” he calls, “five lengths of hose.”

The firemen allow a length of hose to a floor and one extra for good measure. That is part of their fighting system.

Five lengths are “stretched in” and coupled and then the battlers start. The first engine company at the fire takes the inside stairway (if any stairs are left), for their instructions are to get into the building and attack the fire from the inside. In through the doorway disappear the smoke eaters, and up the stairway dragging their sleek, serpent-like hose with them. Up, up they go, the smoke getting denser all the time, the roar of the flames aloft growing louder and more threatening. The second floor is reached. The smoke is terrible. The fire is on the next floor and the floor above that. The men are under it.

That is the position of advantage for the fire-



## 36 THE BOYS' BOOK OF FIREMEN

men. Always the men of the engine companies are instructed to get close to a fire and fight it from its source; beat it down with tons of water and keep it from spreading until it is under control and finally finished. These men are under the flames. They look up through the gray, eddying smoke that rolls down the stairway from aloft, and they can see licking tongues of fire reaching out to devour everything in their pathway. This is the enemy and the men are ready to give it battle.

Now while these men have been climbing up through the smoke filled building, down in the street the engineer has made all the necessary connections to the street hydrant and has started the pumps of his engine. In a twinkling hundreds of gallons of water are forced into the hose under many pounds of pressure and the long black snake that winds into the building quivers as if it were alive with the throbbing of the water inside. The men who have dragged it aloft feel this quiver and know that it is charged and ready.

The firemen's instructions are not to start the

## FIGHTING THE FIRE MONSTER 37

water until they actually see the flames. They cannot aim blindly into a bank of smoke and fire away, for the water would do thousands of dollars worth of damage and perhaps never reach the source of the fire at all. "Never start your water until you see the flames," is the order given them, and they obey, even though they have to fight their way through rolling clouds of smoke, so thick that they are overcome and drop from exhaustion. That is why these men fought their way up the stairs step by step until they saw the tongues of fire up-leaping.

There is the enemy at the top of the next flight of stairs. Like soldiers the fire fighters steady themselves for a charge, then, with the hose open and a hissing stream of water preceding them, they work their way slowly and stubbornly up the last flight of steps, and into the very heart of the flames. And here they wage the battle.

Meanwhile in the street other things have been happening. Two more engine companies have arrived in whirlwind fashion, and rein-

## 38 THE BOYS' BOOK OF FIREMEN

forcements are added to the ranks of the fighters already in the building. Other lengths of hose are "stretched in" and while one company has worked its way through the building to the rear and up the fire-escapes to the third floor, another company has gone up the front of the building by means of ladders and into the third floor through the front window. A hook and ladder company has arrived, too, the men of this company going to the roof of the building to do their part in the battle, and a few moments later, with screaming siren, a water tower pulls up and takes its place in front of the building.

But the fire is not as big as the volume of smoke indicates and by the time the third crew of fire fighters has "stretched in," the first little army of fighters who made their way up by means of the stairs have found the vitals of the fire and are smothering it under a heavy stream of water. The hook and ladder boys have worked their way down from the roof to the third floor and great sections of flooring and side walls are soon being torn out to lay bare the hiding places of live coals, all of which

must be discovered and quenched before the firemen can return to their station.

The members of the first engine company to arrive at a fire usually receive the most punishment, for, as you now realize, their first instructions are to get into the building. Going into a fire swept building requires the utmost of courage. There have been cases where an entire engine company, the first to arrive at a fire, forced an entrance into the structure aflame, went in and not one of them ever came out again. This happened to a company of Hoboken, New Jersey, fire fighters in the now famous dock fire that destroyed the piers of the Hamburg American Line and the Delaware, Lackawanna and Western Railroad, besides three steamships and scores of lives.

But whether they work inside or outside the fire the firemen are ever beset by perils. Indeed there have been times when firemen have been caught on fire escapes on the outside of a building and all but perished there in full sight of their comrades. These emergencies are arising all the time, and then it is that brav-

## 40 THE BOYS' BOOK OF FIREMEN

ery and cool headed courage count the most. Then it is that the men of the hook and ladder companies accomplish their noblest rescues.

Fireman P——, we will call him Preston for he does not like to have his real name known, of the New York Fire Department knows this only too well. If it had not been for the courage of the hook and ladder boys and his own cool head—well, he would not be wearing a uniform now.

He, with three other firemen, was “stretching in” a line at a big fire in Canal Street one night. It was a raging fire on the top floors of a four story brick building and a second and third alarm were sent in as soon as the Battalion Chief arrived on the scene. The chief saw at a glance that four engine companies could not hold the fire monster in check, so he called for reinforcements in the shape of eight more engine companies and all other apparatus that responded to a third alarm in that district.

Preston and the three other men of his company were assigned to “stretch in” a line up the front of the building by means of the fire-

escapes. Up they went, story after story, until they reached the fourth floor. Here Preston beat out a few window panes with the aid of his leather ribbed helmet, and then signaled for water. Presently with a hissing roar a one and a half inch stream was shooting in through that open window right into the very heart of the fire. Flames, of course, and clouds of curling smoke shot out of the window into the faces of the men on the fire-escape, but they withstood the onslaught and fought back, bravely.

Inside the building was a seething furnace. Already the first company had been driven back and down to the second floor by the advancing fire. The flames had the upper hand and the firemen knew they had a long and tedious battle ahead of them. Even Preston's position on the fire-escape was getting uncomfortable, for sheets of flames were leaping out through the window, and the iron of the fire-escape was glowing red under the heat. But still he and his companions battled hard and earnestly, until, suddenly, came a command from the street below to "back down." The

## 42 THE BOYS' BOOK OF FIREMEN

Chief had seen that the position of the four men was becoming perilous and he did not intend to have them risk their lives any longer.

Their water was shut off and slowly the four men started to back down the fire-escape carrying the now limp hose with them. One by one they passed from the fourth floor to the third. Three men were on the third floor fire-escape and Preston, the last to leave, was just starting down the ladder from the top platform. Then without warning the windows on the third floor burst, and great shafts of flames leaped out. Hastily the three men retreated to the second floor, but Preston still on the ladder between the third and fourth floor was cut off. He saw at a glance he never could pass through those flames alive. Already the iron of the fire-escape was red hot and bending. What should he do?

The flames under him grew hotter. They drove him back to the fourth floor again. But fire and smoke were pouring out at him here, too. He edged as far away from the window as he could and finally sought as a refuge the

## FIGHTING THE FIRE MONSTER 43

two inch strip of iron on the top of the railing that surrounded the fire-escape. He stood on this, his back flat against the wall and his arms spread out to steady himself. In this position the flames swept up and past him.

But his safety was only a matter of a few minutes. Four stories below him in the street he could see the horror-stricken crowds staring up at him. He saw his brothers in uniform scurrying here and there. He knew they were going for a life net, for they realized that sooner or later he would be forced to jump. Could they get the net in time! And, if they got it, could he make the jump! They would have to hurry! The flames were terrible now! His rubber boots were smoking. The hot bricks were burning into his back. His hands were blistered! It was only a matter of seconds now! He knew he could not stand the strain much longer! He was becoming dizzy! He—

Then suddenly as if by a miracle a coil of rope shot down from above and hit him in the face. He could not comprehend it. But he



## 44 THE BOYS' BOOK OF FIREMEN

did not stop to investigate. Hastily he grasped the manila strands and knotted them under his arms. Snarling flames reached out and singed the hempen cord. But the fire demon was too late. He was cheated of his victim, for Preston was hauled aloft in a twinkling, and presently he came over the top of the cornice of the building and onto the roof where a hook and ladder company was at work. The boys from the truck company had somehow discovered Preston's peril, either by accident, intuition, or the sound of the cries from the street. And dropping everything, they had lowered a rope to him just in time.

But fires of the nature of those just described are not the hardest kind of conflagrations for the men of the engine companies to handle. The enemy is open to an attack from all sides, and thus is more easily conquered. What are most dreaded by the fire fighters are cellar fires, or, worse still, sub-cellar fires, where the flames are two stories under the street level, without windows or more than one door to give vent to the clouds of thick dense smoke and the masses

of gas that form. It takes a cool head and a brave heart to go into a cellar fire, for usually there is only one way in and, of course, one way out, and if, half blinded and almost overcome, a fireman misses that way out in his effort to reach the open air, the best he can expect is death by suffocation.

It is at cellar and sub-cellar fires that the engine company boys get the punishment. Their orders are to find the fire and fight it, and find it and fight it they must or—well, there never yet was a quitter who lasted long in a fire department.

The first duty of firemen called to a cellar fire is to try to locate the spot in which the fire is raging, and this is a very difficult task, strange as it may seem. One fireman said that they frequently have to resort to two senses, seeing and feeling, to find cellar fires. Sometimes they even charge blindly into the cellar through a trap-door, hatchway, or whatever outside entrances they can find, and try to locate the fire in that manner. And sometimes they are brought to the point of feeling different sec-

## 46 THE BOYS' BOOK OF FIREMEN

tions of the floor of the story above the cellar, and locate the flames by discovering the place where the boards are the hottest. When this place is found a section is chopped out of the floor and a hose forced into it, with revolving nozzles attached.

Several interesting appliances have been invented to help the firemen fight cellar fires through the floor. Among them are various nozzles that are known to the firemen as distributors, or revolving nozzles. They are coupled onto the hose and forced through openings cut in the floor of a building in which a cellar fire is raging. There is, also, the cellar pipe, which by its peculiar shape permits the firemen to throw a stream into the cellar at any angle instead of shooting straight into the hole, as they are forced to do when using an ordinary nozzle.

Another and more peculiar form of nozzle, which is called a Bresnan Distributor, looks very much like a big lawn sprinkler, and works in exactly the same way. It is a big steel ball with many holes in it. When this is coupled to



A Fire that is Hard to Fight  
It is at cellar fires that the Engine Men get the most  
punishment.



the hose and put into a hole leading to the cellar, streams of water are flung in all directions through the holes, and some of this water is bound to come in contact with the flames.

An added danger in cellar fires is that this section of the average business building is used as storage space. Under the street level may be cases and bales of wool, or carboys of chemicals, which, when heated, give off deadly gases. All these produce heavy smoke which adds to the punishment of the firemen and make the entrance to the cellar more difficult. Whole companies have been known to be overcome in a single basement fire, sometimes four or five men dropping at once, leaving no one in the cellar to drag them out into the air.

To meet these conditions the New York Fire Department has established a company known as Rescue Company No. 1 (about which you will read more later). This company is equipped with smoke helmets, pulmotors, Blau-gas torches and a host of other special appliances, and the men are ready for almost any emergency. They can be quickly called to all

## 48 THE BOYS' BOOK OF FIREMEN

dangerous cellar fires, or any other fires at which the officer in charge believes they are needed.

It may be interesting to know that fires in tall buildings are not as difficult to fight as you probably imagine they are. Building laws have come to the assistance of the firemen here; and in every building higher than eighty-five feet a fire fighting system in the form of stand-pipes is installed.

These pipes travel from the basement to the very top of the building, with an open siamese connection on the street in front of the building. Perhaps you have noticed one of these. Look in front of any tall building and up very close to the wall you will see a short stub of a pipe with two entrances. This is labeled "stand pipe" and is, so to speak, the building's fire fighting system. On every floor there is an outlet to this pipe and a section of hose connected to it. There is, also, an alarm system in the building by means of which an alarm can be sent to the Fire Department.

## FIGHTING THE FIRE MONSTER 49

When a fire occurs, say on the tenth story of one of these tall buildings, the first act of the firemen upon arrival is to connect the engine with the nearest street hydrant and then run a three inch line of hose from the engine to that stub of a standpipe you noticed in the street. 49404 Meanwhile the men of the company go into the building, and by stairs or elevators reach the floor below the fire, in this case the ninth. Two of the men carry rolls of hose, another carries a nozzle. When the men reach the floor below the fire, they unroll the hose, couple the two lengths together and fasten on the nozzle. Then they connect it with the outlet of the standpipe and go up stairs to the tenth floor. Here they wait outside the door, hose ready.

During this time the engine down in the street has been pumping water from the hydrant into the standpipe and raising it to the tenth floor. This is called "charging" the standpipe. When the pipe is fully charged and there is enough pressure behind the water to make it effective, the signal is passed aloft to the men



## 50 THE BOYS' BOOK OF FIREMEN

with the hose. Instantly these men charge forward and, opening the door leading to the fire swept floor, start their battle.

In tall building fires, the men of the engine companies are assisted by an apparatus which is known as a water tower. This is a big sixty-five foot pipe tower that is carried on a truck which looks a great deal like a hook and ladder truck. When not in use the tower lies flat along the truck, but when it is necessary the tower can be raised so as to stand erect. This is connected to an engine in almost the same manner as a standpipe connection is made, and the firemen can, when the emergency arises, throw a stream over the top of a twelve story building with the aid of this apparatus.

Another appliance that is called into use by the firemen in severe tall building fires is a searchlight engine (about which you will hear more later). This, of course, is only necessary at night; but it is a very useful piece of apparatus, for, with its powerful searchlights playing on the sides of a burning building, dangerous sags, or cracks in the walls, can be detected

## FIGHTING THE FIRE MONSTER 51

at once, and the firemen warned. Then, too, with its aid the fire fighters can see to work faster and more accurately.

The high pressure water systems that have been established in many of the larger cities go a great way toward lessening the hard work of the engine companies at big fires. This high pressure system has, in a measure, revolutionized fire fighting in certain zones and is decidedly interesting. Further on you will be able to read in full detail just how it is used in fire fighting, but it is necessary to state here that, since its establishment in certain sections of New York, a great change has come over the Fire Department.

In the first place, it has made the huge nickled and brass engines, those snorting furnaces on wheels that go flying through the street, almost obsolete. Indeed, the engines no longer respond to every alarm in some sections of New York. In their place has been developed what is known as a High Pressure Wagon. This wagon is like the old hose wagon only built on a much heavier scale. It carries the

## 52 THE BOYS' BOOK OF FIREMEN

hose, nozzles, and other appliances, the scaling ladders and firemen's personal equipment, and besides it carries a "deck gun" or turret nozzle and it is outfitted with a pipe system which permits it to be coupled direct to the hydrant as the engine coupled up, so that this deck-pipe can be brought into action immediately.

When an alarm is sounded in a high pressure district only this big wagon leaves the station, the engine remaining behind. The wagon on reaching the fire takes its place near the high pressure hydrant while the men "stretch in" the hose lines and connect up. In the meantime, the call is received at the high pressure pumping station that supplies the hydrants of the fire zone in question, and immediately big pumps are started which send the water racing through the underground pipes at a pressure even greater than that developed by the old fire engines. Thus all the high pressure hydrants in the vicinity of the fire are charged and it is only necessary for the firemen to connect up to these, and they have a stream of water more

## FIGHTING THE FIRE MONSTER 53

effective than that usually pumped to them by the ordinary fire engine.

Of course the engines are not being put entirely out of work by this innovation. Those brass-throated, smoke-belching, fire fighters are still used even in the high pressure zone. They respond to all alarms sent in from tall buildings, for you see they are needed to charge the standpipes. Then, too, they are quite necessary in an emergency, for if the high pressure system should suddenly become crippled by an explosion, or collapse of any nature, the engines would be needed and needed badly.

Along with the curtailing of the services of the engines in certain sections of the large cities came another change in the various fire departments. The fine old chargers, the fire horses, were deemed obsolete. Motor driven engine, hose wagon and hook and ladder trucks were introduced. Big, powerful, four cylinder, 120 horsepower motors were built to serve instead of the knowing old fire horses, and now one by one the fine animals are disappearing.

## 54 THE BOYS' BOOK OF FIREMEN

No, they are not being sold, at least not by the New York Fire Department. The officials of this important branch of city government have too much sentiment to sell, or kill off, those faithful beasts in order to replace them by motors. Instead they are allowing Nature to take care of the work. The fire horses are retained as long as they are fit for service; but, when they have served their time, they are allowed to go and no new horses are bought to replace them. In other words the horses are being allowed to serve their time and, when their end comes, then, and not until then, a motor replaces them.

The New York Fire Department maintains a very large and very complete machine shop and it is by means of the excellent work done here that the motorization of the various pieces of apparatus is being accomplished. The hose wagons in most cases are rebuilt and the automobile feature added during the rebuilding. In the cases of the engines, however, the same old engines are retained, but the front trucks are removed and an automobile tractor is added,

## FIGHTING THE FIRE MONSTER 55

thus converting the big piece of apparatus into a giant automobile with a gasolene engine to turn its wheels and a steam engine to run the pumps which supply the hose with water.

## CHAPTER III

### "BOLLING" WITH THE "HOOKSIN" MEN

WHAT the battleships are to a landing party of Marines, the hook and ladder boys are to the fire fighters of the engine companies. The battleships by covering the advance of the Marines at Vera Cruz and clearing the streets and buildings with a rapid shell fire, allowed the United States soldiers to land and take possession of the town and, later, force the Mexicans out altogether.

The hook-and-ladder men, by clearing the way for the engine companies, battering down doors, opening windows and skylights and ventilating a fire swept building, relieve the structure of its heavy charge of smoke and gases and leave the way clear for the men with the hose to do the fighting. That, in a few words, sums up the reason for the "trucks," as the hook-and-ladder companies are called in the language of fire fighters.

But those few words in no way express the terrible punishment the members of this other arm of a city's fire fighting force has to undergo to accomplish their work. They in no way express the courage and valor of those brawny, determined young giants who risk their lives every day prowling through the lair of the fire demon. Nor do they tell of the hundreds of heroic deeds, gallant rescues or noble sacrifices of life and limb made by these men, nor of the vicious burns, broken bones, scars and lacerations they receive almost daily in their business of protecting life and property from the red-eyed and growling fire monster.

We know now that the men of the engine companies take a great deal of punishment in their fire fighting; but do not for one moment get the idea that the men of the truck companies are not subjected to the same hardships. They are “smoke-eaters,” too, in every sense of the word. Indeed, if such a thing is possible, they get even more brutal treatment in the form of heat and smoke than their brothers in uniform, for the men of the “hooksies” frequently work



## 58 THE BOYS' BOOK OF FIREMEN

“on top” of the fire, while the engine men do battle from beneath it when they can. And always, the punishment from heat, smoke and gases is greater above the flames than below them.

Like the men of the engine companies, the boys of the hook-and-ladder squads have several methods of attack, each depending upon the location of the fire encountered. Their chief concern is to get the building in question ventilated; to get the proper openings made so that the smoke, heat and gases will be carried off the quickest possible way.

The first truck company to arrive on the scene of a fire, like the first engine company, has specific directions to follow. If the hook-and-ladder company arrives before the engine company, the first step, of course, is to force the street door of the building. This is done in a twinkling, for the hook-and-ladder men are equipped with all kinds of emergency tools, and there is never a door too heavy nor too thick to bar their entrance. Usually by the time they have forced the street door, the first engine

company has arrived and is “stretching in.” In this case the hook-and-ladder men advance into the building with the first engine company, and, while the men with the “line” take their position, the “hooksie” boys rush ahead with axes and smash open the door leading to the fire swept apartment.

Then while the fighters are charging the fire, the hook-and-ladder men work their way into the apartment, and, bending low with their faces as close to the floor as possible to avoid the smoke, they move toward the front of the building and open all the windows. If the fire is in a district where two trucks respond on the first alarm, the men from the second truck company go through the building and up the rear fire-escapes to open up the windows thus carrying smoke, heat and gases out and clearing the rooms so that the fire fighters can live and do their fighting.

If the fire happens to be on the upper floors of the building, the hook-and-ladder men have a different method of attack. Then they proceed to the roof, either through the building, or

## 60 THE BOYS' BOOK OF FIREMEN

by means of fire-escapes, or ladders up the outside. Here their first work is to open up the roof, prying loose all bulkhead skylights and doors that lead into the building from above. And then, if there is not enough openings to clear out the smoke and gases, they proceed to cut away the roof, tearing up sheets of tin with their ugly pointed pole hooks and tin-cutters, chopping away the woodwork with their keen edged fire axes.

These hook-and-ladder men work fast and furiously. They swarm over a building like rats, every man with a duty to perform, and every man performing it, no matter what bodily discomforts he is forced to undergo in the meantime. These men rub shoulders with death more than once in order to help their comrades of the engine companies get at the vitals of the fire. But they view it all as just so much work to do and let it go at that, never looking for some one to sing their praises to the public.

The dangers these men encounter seem almost without number. Indeed, they are so

numerous that after a time the firemen become almost careless of them. And not the least of these dangers for the hook-and-ladder men is that of becoming isolated in a fire swept building, or in other words, utterly lost. This happens very often and not infrequently ends in death by suffocation for the man concerned. Getting lost is one of the horrors of cellar and sub-cellar fires. The thick, choking smoke that usually accompanies a cellar fire produces inky blackness on every hand; but the hook-and-ladder men are supposed to go into this smoke and work alongside of the engine men either at ventilating the place or fighting the fire with what is known as a “second line.”

In entering a cellar, the men as a rule work their way about on hands and knees, or crouch very low, so as to get the benefit of the clear air near the floor. In this position they quite frequently crawl under objects such as benches, tables, printing presses and the like, and before they know it they are caged, and it is very difficult for them to find their way out. And all the time that they are struggling to

## 62 THE BOYS' BOOK OF FIREMEN

find an exit, they are slowly suffocating! The thick, black, gas-laden smoke is making it more and more difficult for them to breathe and sooner or later they become unconscious. Then, if they are not found in a few minutes, it is too late.

In their work of ventilating the buildings, these men also wander about from floor to floor, working their way through smoke so dense that they are rarely able to see three feet ahead of them. Under these circumstances it is very easy to step through a trap door or down a stair well without warning.

Here, too, they often get lost and go wandering about blindly, their lungs nearly bursting for the want of fresh air. If they can find a window they are usually safe; but windows are hard to locate, when one is in a smoke filled room of a strange building with all idea of direction completely lost. Often, in their desperate efforts to find a window, these men stumble across a line of hose that has been brought into the building. This is their salvation. Immediately they drop to their knees

and begin crawling along the line keeping their face within a few inches of the cool rubber. The swift rush of cold water through the pipe generates a cool, clear current of air along its entire length for which the firemen are always grateful. And if they follow the hose line they are sooner or later certain to find their companions, or a way out of the building.

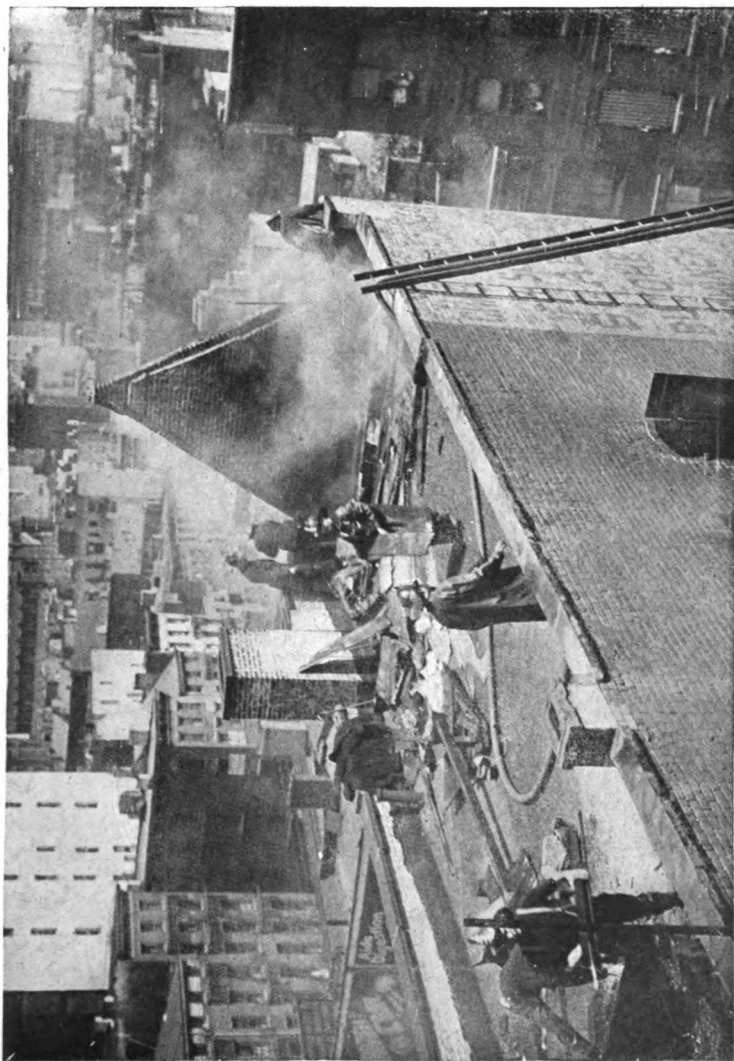
Falling objects are not the least dangers that the men of the hook and ladder companies encounter. Sometimes there are showers of glass from windows bursting under tremendous heat or deliberately broken by hook-and-ladder men above who are trying to get air into the building the quickest way. Serious cuts have been sustained by fire fighters from jagged pieces of glass, in spite of their leather helmets and heavy rubber coats and boots. Melting lead from metal cornices and even bricks come hurtling through space, too. At big fires many a fire fighter has had his helmet jammed down over his eyes by the force of such a blow on the head.

Some men seem naturally unlucky in regard

## 64 THE BOYS' BOOK OF FIREMEN

to falling objects. Fate seems to pick them out to be the recipient of many of these terrible missiles from above. Take the case of a New York fireman, a strapping fellow and brave to the point of utter recklessness. He joined the department, received his Fire School training (yes, there are schools for firemen, as you will learn later), and served his probation before becoming a man in uniform.

The third day after he was detailed to his company, they "rolled" to a big fire. He was in the thickest of it, battling away with the rest, when, crash, down came a brick from a loose section of wall, striking him full on the helmet and jamming the leather hat down over his ears and stunning him. Three days later, his sixth day in service, he was called to another big fire in a warehouse. He was in the street, helping to stretch in a "second line" of hose, when he heard a shout of warning. He looked up in time to see a heavy iron shutter hurtling toward him. He dodged, and the shutter missed his head by a few inches and crashed to the



**“Hooksie” Boys at Work**  
They are starting to “open up” or ventilate a top story fire.





pavement, cutting the line of hose on which he was working completely in half.

Three days later, his ninth day in the service, his company responded to a three alarm blaze and again he was working in the street on a “second line.” This was a bad fire. There were fourteen engine companies and six truck companies in the fight. Twenty odd lines of hose had been stretched in but still the fire demon could not be held in check. First the roof caved in, then story after story the floors dropped through, sending up showers of sparks and thick black smoke. The firemen were working desperately, trying to save nearby property and kill the roaring flames. The young fireman, with others, was handling a line well up under the building, shooting the water through a window space into the veritable furnace inside the building.

They were in a dangerous place. The brick wall that loomed above them was red hot. The water that dashed against it sent up clouds of steam. It was a perilous position, for any mo-

## 66 THE BOYS' BOOK OF FIREMEN

ment the wall might crack and fall. The Battalion Chief in charge of the fire saw this and ordered them to back out. They started to obey, when, with a hiss and a roar, a great crack opened and the wall bulged out. The firemen jumped for their lives and fled, dragging the heavy hose with them. But the young fireman lingered a moment too long. Down crashed the tons of bricks and the last his companions saw of him was when he was struck down by one of the bricks flying in advance of the mass. He was buried under the wreckage and it was a whole day before they found him.

Falling floors and walls are still counted among the dangers of big fires, even though the modern buildings are "fire proof" structures. The reinforced concrete side walls and steel-beamed floorings of to-day will of course withstand infinitely greater heat than the brick and wooden structure of several decades ago, but enough of these old-fashioned buildings still remain in every city to furnish food for the fire monster. No one knows just how much heat or fire the timbers of these old time buildings will

hold. Often fire in a building will weaken the beams of the roof, eating away the supporting timbers and making it sag. A few moments after, the men of the truck company arrive on the scene and swarm on to the roof to “open her up.” Their additional weight is all that is needed to make it let go and with a crash it drops into the fiery interior. Lucky, indeed, are the “hooksie” boys if they all succeed in scrambling out of the way of danger.

Water tanks on the roof frequently drop, their supports being weakened by the fire raging under them. Their tons of water carry them downward, crashing through floor after floor of the building, and woe betide any fireman working on the floors that are wrecked by the falling mass.

Of falling walls there are three varieties, some more dangerous than others, but all dreaded by the firemen. Often brick walls, under terrific heat, will crack across the bottom. The intense weight above, if the wall has not bulged at all, will force it downward and it will fall in a heap. A “curtain” wall

## 68 THE BOYS' BOOK OF FIREMEN

this is called, because it falls exactly like a huge curtain of brick and mortar, sending up a tremendous roar and a cloud of brick dust. Other walls will show a huge crack or two down the centre, and, when this begins to topple, it buckles up and comes down with a great crash, burying everything and everybody within range under tons of red hot bricks.

But the most dangerous falling wall of all is that which, like the first, cracks across the base under intense heat, or from the result of an explosion within the fire. The heat, or the force of the explosion, bows it slightly at the same time and it falls straight out in a solid mass, blanket-like in proportions. Under walls of this kind more than one brave fire fighter has lost his life. Indeed, whole hose crews have been blotted out this way. Horses have been killed and even hook and ladder trucks and engines have been crushed and battered under the force of the thousands of tons of brick.

Explosions and deadly back draughts are perils that the hook-and-ladder men (and the

men of the engine companies as well) constantly come in contact with at big fires. In truth that horror of fire swept buildings, the back draught, seems the cruelest of all the weapons of the fire monster, for many a man in uniform has literally been burned alive by these resistless walls of fire which the power of twenty engines cannot check.

Back draughts, or “blowbacks,” as the firemen call them, result from any number of causes and are in a sense freak performances of bodies of fire. They may be caused by a mixture of gases generated by the fire itself, or by the explosion of some kind of combustible, such as naphtha, gasolene, oils and the like, all of which are to be found in business buildings in large and small quantities. The mere force of these explosions is liable to change the direction of the sweep of the fire, or to give it added vigor and for the time being create sheets of flames that are hurled in all directions consuming everything in their path. Or again they may cause the side of a building to cave in, thereby starting new draughts counteracting

## 70 THE BOYS' BOOK OF FIREMEN

those that have been created by the hook-and-ladder men in "opening up" the fire. In these cases the course of the fire is changed completely and with a hiss and a roar the flames start in another direction.

Then woe betide the firemen in their path. No force on earth can stop one of these great walls of fire once it starts rolling outward. The firemen must scramble for safety, or, throwing themselves on their faces, trust to providence that the freak wall of flames will roll over and above them and leave them unscathed, as frequently happens. Many of the worst burns suffered by the firemen result from being "nipped" or "ketched" by these back draughts. And more than once men will return from the scenes of fire with their eyelashes, eyebrows and mustaches singed from having been caught in a mild form of blowback.

A point where these back draughts frequently catch the fire fighters is on the fire escapes of buildings. A crew with a line in action may be congregated on a fire escape playing their stream through the open window into the fire,

when, suddenly, something happens in the rear of the building that shoots a current of air toward the front. Instantly the flames leap toward the men on the fire escape, hissing and roaring through the window opening and sometimes extending all the way across the street to the buildings on the opposite side. If the men on the fire escape are quick enough they dodge and cover up as best they can. But sometimes the flashes are swift and unheralded, and the men catch the blast full in the face or the back of the head. That means work for the ambulances in the street below, for the men must be rushed to the hospital instantly.

In ventilating fires the hook-and-ladder men have to be particularly careful in not creating back draughts and thereby imperiling the lives of the men of the engine companies working inside the building. Also they must be careful not to cause the fire to “mushroom” or jump from floor to floor or from the basement to the top floor by way of airshafts or stairwells, as often happens, when draughts are sent sweeping through the building. Often a fire starting



## 72 THE BOYS' BOOK OF FIREMEN

in the cellar will leap up through a stairwell, and, if the bulkhead at the top has not been removed, the flames, when they strike aloft, will spread out and start a conflagration on the top floor, "mushrooming," as the firemen call it, and creating two distinct fires in remote sections of the building, each of which must be conquered.

The real test of a fireman's courage and his skill, too, in handling the implements of his craft, comes in rescue work. Practically all of the feats of daring that result in the saving of lives are performed by the men of the hook-and-ladder companies, for, as you know, the engine men are primarily the fire fighters. The engine men cannot desert their lines of hose under any conditions, no matter what horrors or unhappy deaths may be occurring about them. That being the case, it devolves upon the hook-and-ladder men to do the rescuing.

One of the first duties of the men of the truck company after they have "opened up" the fire is to go rummaging through the flame-ridden building trying if they can to find any of the

occupants who have been left behind or who have been trapped or made unconscious by smoke or flames. And hard, indeed, is this task, for as a rule human beings become panic-stricken in the face of the fire peril and do the most unheard of things in their rashness. Children are often found huddled under beds or in dark closets. Men and women, also, take to refuges just as absurd, forgetting the fact that the smoke and flames, if given enough time, will find them out.

To defeat the fire and seek out these poor unfortunates is the work of the hook-and-ladder men, and they brave many personal dangers in the effort to perform this duty.

Often the firemen are called upon to take greater risks than wandering through smoke filled buildings to save the lives of people trapped by the flames. These are emergency cases, of course, but the firemen must be ready to meet the emergency every hour of every day. He must be cool, confident and courageous. It may mean a perilous climb from window-sill to window-sill a hundred feet in the air. It may

## 74 THE BOYS' BOOK OF FIREMEN

mean a leap into the life net, it may mean scaling the front of a building, with the flimsy and difficult scaling ladders, or it may mean any one of a hundred perils. He must be ready for each or all of them.

Some spectacular and very heroic rescue work has been done by the "blue-shirts" of the New York City Fire Department, the firemen sacrificing their own lives in some cases in order to save those of the people imperiled. Take the now famous rescue made by a certain fireman of a hook-and-ladder company working in the East Side of New York when a big old-law tenement house was aflame in the early hours of a winter morning a short time ago.

It was a hot fire while it lasted. Flames started in the cellar and first floor of the brick and wood tenement building before any of its occupants were awake. It was a draughty old building of five stories, and in no time the fire had leaped up the stair-well consuming the wooden stairs like tinder, burning them almost in under the feet of the frantic inmates who

were rushing to the street, half clad and thoroughly panic-stricken.

Some one, a policeman perhaps, had forethought enough to turn in an alarm and three minutes later, with a rattle and a roar, bell clanging and whistle hooting, the first engine company arrived. Before all the stragglers had left the hallway, the first line was “stretched in” and the firemen were battling their way up the fire-swept stair-well. But the flames had the upper hand and before the second engine company arrived all the stairways were a mass of flames and some of them had already fallen. The fire monster was devouring the wooden frame work, doorways, partitions and furniture in some of the apartments and it looked as if the building was doomed.

Then came the hook-and-ladder truck, jouncing and swaying down the narrow cobble-paved street, her sirens screaming and her great gong clanging loudly on the frosty morning air. With a rattle and a bang, she drew up, and axes and pike poles in hand the crew descended.

## 76 THE BOYS' BOOK OF FIREMEN

The driver and tillerman leaped from their seats, too, and unslung a thirty-five foot ladder which they rushed to the building and up ended, this being the first duty of the driver and tillerman of every truck company upon arriving at a fire.

Meanwhile the captain had hurried into the burning tenement. One glance at the sheets of flames that were shooting aloft convinced him that the battle was an uneven one—with the odds against the firemen.

“She’s a ripe fire, boys, she’s ripe!” he shouted. “I hope to goodness there is no one left upstairs. If there is, we can’t—What, what’s that—What’s he shoutin’? Some one in there? Where, where? At the window? Where? Top floor? Heaven help them,” he cried, as he heard a shout from the street and saw the frightened and shivering tenants and the rest of the early morning crowd that had gathered, all staring aloft and pointing toward the upper story windows.

Out he rushed into the street. His men followed him. And there, on the fourth floor, he

saw the frightened faces of four people, a man, a woman and two children, looking out of the open window. And the look of terror and appeal on those four faces was enough to stir even the most timid man to action.

There was no parleying or hesitation. Every fireman knew that the family was cut off from the fire escapes in the rear and from the hallways. They knew that the fire was raging through the rooms in back of them and that it was only a matter of minutes before it would break through the thin walls and reach the room in which they were prisoners. Then there would be nothing for them to do but jump and probably be killed or—or—(the thought was too dreadful) be burned to death.

Like a flash the firemen acted. One rushed to the truck and unshipped a scaling ladder. Then, with this under his arm and a life belt tightly girdled about his waist, he started up the thirty-five foot ladder that the driver and tillerman had erected. Up he went as fast as he could climb, utterly disregarding the fact that the ladder only reached to the middle of

## 78 THE BOYS' BOOK OF FIREMEN

the third story. Up, up, he climbed past windows that belched forth smoke and flames. His face was scorched and his hair was singed. His hands were raw and blistered. But on he went until he reached the top of the ladder. Here he paused and looked aloft.

The anxious and appealing faces were peering down at him from a story and a half above. Smoke was curling from the window out of which they leaned. He had only a few moments longer. He must hurry or he would be too late. Coolly he jammed the end of the scaling ladder through the window of the fourth floor. Then hooking the long arm over the edge he swung himself off of the thirty-five foot ladder and started climbing again. On the fourth floor window ledge he stopped and lifting the scaling ladder above his head, hooked it over the sill of the window out of which the eager faces peered. Then up he scrambled again, moving swiftly but coolly. At the window ledge he paused and looked down just an instant to see what his companions were doing. He viewed with satisfaction the fact that they

had worked the truck into position and were getting ready to raise the big eighty-five foot extension ladder. Then with a shout he swung himself over the ledge and into the room with the cowering and almost frantic tenement dwellers.

The smoke was thickening in there and the flames were crackling behind every wall. Indeed they had begun to lick up and down the jams of the open doors. Quickly the fireman rushed over and closed every door in the room, cutting off all draught and barring the flames from entrance for the time being at least. Then he crossed to the window again and peered out. The extension ladder was being raised. Only a few feet more and it would be at the window sill. Every minute seemed like an hour. He could hear the flames hissing and roaring around him. He could see tiny tongues reaching under the doors. Chunks of plaster were dropping from the heat. Up came the ladder! But by this time the smoke had begun to do its deadly work. It was thick and gaseous and it was getting into the tene-

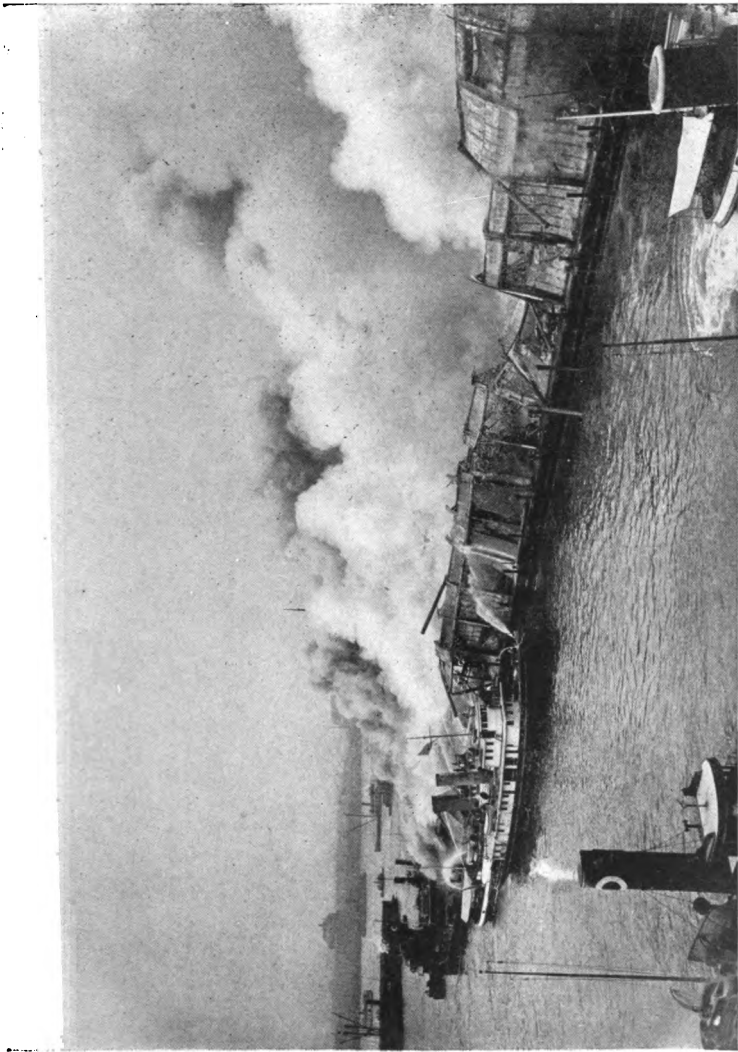


ment dwellers' lungs. One of the children had dropped to the floor, overcome. The fireman gathered her up in his arms and leaned far out of the window.

Below him he saw two of his companions climbing the ladder as fast as they could. He urged them upward and they hurried. As soon as the first fireman arrived, the rescuer passed the unconscious child to him. He in turn passed her to the man who had come aloft with him, and the last man made haste to climb to the street again.

Meanwhile the fireman in the room passed out the second child and the first fireman started street-ward with his precious burden. And as soon as he was clear of the ladder up started another pair of fire fighters, hurrying their utmost, for they could see through the smoke and flame that the fireman in the building held the limp form of the woman in his arms. She, too, had been overcome.

Inside the room it was terrible now. Both the man and the woman had succumbed to the heat and the smoke, and the fireman was cough-



**Two Fire Boats at Work**  
Note how close in they are fighting this hot fire.



ing and gasping for air. The smoke was thick and black and heavy, and the fire was eating its way through baseboard and floor and under the doorways.

First the form of the woman was passed out through the window. Then came the limp form of the man. The fireman in the room had hardly strength enough to lift him from the floor but somehow, with a superhuman effort, he managed to pass the last tenement dweller through the window and into the waiting arms of the fourth fireman.

Then, with all the lives saved, he tried to save his own. Flames and smoke were roaring in the room behind him. The heat was blistering and his lungs felt as though they were bursting. He was dizzy and very unsteady on his feet, but he fought with himself to master the effects of the smoke as he slowly and painfully climbed over the window-sill and started to descend that long extension ladder. Twice he had to pause on his way down, for his head swam and black spots leaped before his eyes, but he was bound he would not give in. He

## 82 THE BOYS' BOOK OF FIREMEN

knew that if he became unconscious there on the ladder it would be the last of him for he would pitch headlong to the street below.

Fighting his way down that ladder and trying to keep control of himself was far worse than fighting his way up with the scaling ladders, but he was a man of training and courage. He was a man with a will and he would not give in. As he descended, however, gusts of fresh air swept aside the smoke cloud momentarily and made breathing easier for him. And the new air in his lungs gave him strength, so that by the time he had reached the turntable on the truck which forms the base for the extension ladder, he was almost himself again. Indeed, he was able to help the ambulance surgeon work over the four unconscious forms of those whom he had rescued and he had the satisfaction of seeing each one of them thoroughly revived in less than half an hour.

But that rescue, courageous though it was, was only one of scores, yes, hundreds, that have

been made and are being made weekly by the fearless and daring fire-fighters in every city of the United States. They think little of such things, nor do they look for praise. For like the true Americans that they are, they consider it “all in a day’s work.”

Big four-cylinder automobile motors of from ninety to one hundred and twenty horsepower, have taken the places of the picturesque old fire horses in the truck companies too. Four-wheel automobile tractors have been added to most of the horse-drawn trucks, although in some cases entirely new automobile trucks have been built. These very modern hook-and-ladder trucks carry almost everything in the way of emergency equipment that a fireman could desire. Indeed, it is hard to enumerate all that a truck is outfitted with when it is ready and in shape to “roll” to a fire.

As for ladders, there are nine altogether, not including four scaling ladders. First comes the big eighty-five foot extension ladder. Then comes a short sixteen foot ladder of the

## 84 THE BOYS' BOOK OF FIREMEN

same type. Next there are two thirty-five foot ladders, one thirty foot ladder, one twenty-five foot ladder, one twenty foot ladder, one fifteen foot ladder, and one ten foot ladder. The four scaling ladders measure twelve, fourteen, sixteen and eighteen feet respectively. Besides all these there are twenty-five, twenty, fifteen and ten foot hooks, and six six-foot hooks and two four-foot hooks to be used in cellar fires where the ceilings are low and a big hook cannot be handled. Then there is an equipment of very sharp axes, a claw tool (with which, it is said, a single fireman can enter any building or wreck any brick wall in no time). There is a battering ram with which to batter holes into brick walls to provide vents for the fire and openings through which to fight it. A life net is included in the equipment, as well as a medical bag and a gallon can of carron oil for burns. Also there are lamps and marine torches, extra hose couplings, extra nozzles, extra Baker cellar pipes and Bresnan distributors, wrenches, gas pipe

**“ROLLING” WITH “HOOKSIES” 85**

keys, full outfits of tools, fire extinguishers, life belts, life lines, and scores of like appliances, every one of which each “blue-shirt” in the company knows how to use.



## CHAPTER IV

### WHEN THE FIRE BOATS ARE CALLED

TWENTY miles outside of "The Hook," beyond the sight of land and the hail of passing steamers, the tramp freighter, *Siberia*, making nine knots an hour on the first stretch of her ninety-day run to Vladivostok, Siberia, suddenly took fire. Tiny whisps of smoke were discovered working their way through the packing around the hatchways. Hundreds of tons of oily waste and barrels of paint were stored in her great hull along with thousands of tons of steel work, axles and the like, all part of a big shipment of cars for the use of the Imperial Russian Government on the Trans-Siberian Railroad.

The officers of the *Siberia* knew immediately the fire was discovered that strong gases had been generated by the paint fumes and the oiled waste. Somehow these gases had become

fired and inside the steel hull, under the battened down hatches, the flames were raging. Already the steel deck plates were becoming heated.

A fire at sea is serious. The officers of the *Siberia*, only two hours out from New York, were afraid to go on. They were afraid, too, to trust the fighting of that fire in the hold to their untrained crew of foreigners, Chinese for the most part. What were they to do!

The captain and the first officer held a hasty conference. Turn back, was the suggestion; turn back and seek the help of the Marine Division of the New York Fire Department. A moment later bells were jangling deep down in the engine room.

“Full speed ahead” was the order shouted through the speaking tube, and, then, with the big propellers kicking up a great rumpus at her stern, the steel tramper, a fire raging in her hold, turned slowly about and headed back toward Sandy Hook.

She could do nine knots easily, and ten at her best, but somehow the chief engineer managed

## 88 THE BOYS' BOOK OF FIREMEN

to get ten and a half out of her without shaking her steel plates loose. On she forged. It was a race against time now, for the fire inside was getting hotter. The paint was blistering in spots, but, fortunately, the steel bulkheads and the tightly battened hatchways kept the fire from spreading.

Ten miles outside the hook, the *Siberia* began calling on her wireless,

“S.-O.-S; S.-O.-S; S-O-S” was the wireless cry for help that was sent broadcast.

And presently it was caught up by a shore station. An answer came back.

“What—is—the—trouble—Q.T.—calling.”

The signature Q.T. was that of the wireless station at Sea Gate, in lower New York harbor.

“Steamship — *Siberia* — returning — to — harbor — fire—in—hold—call—fire — boats” snapped the wireless of the distressed tramper as she forged harborward, her engines thundering and the fire still raging under her thick steel skin.

Sea Gate caught the message.

“The *Siberia* is on her way back. Fire

broke out in her hold. Wants the fire boats," shouted the wireless operator to a companion. "Quick, quick, the telephone. Get connected with Manhattan. Call up Fire Headquarters and tell 'em. Tell 'em to send a fire boat down. Hurry it now!"

A few moments later the man at Sea Gate had Fire Headquarters on the 'phone. The fireman on the other end of the line listened to every detail of his story, and, when the wireless assistant had finished, the "blue shirt" only paused long enough to make certain of the exact location of the *Siberia*. Immediately after that he became a man of action. In a few seconds he had the fire boat station at the Battery on the wire and had retold the wireless man's story to the house watchman. By doing that he had transmitted a "still alarm" to the fire boat *New Yorker*, which is stationed along the Battery sea wall.

As soon as the telephone call was taken, the house watchman told the tale of the burning *Siberia* to the officer in command of the station at that time, and in a few seconds word of

## 90 THE BOYS' BOOK OF FIREMEN

the fire was passed to every man in the building. They appeared from everywhere, from the dormitory and lounging room up stairs, from the washroom, from the office and from the dock. They were pulling on hats and coats as they came, and, in a few seconds after the call was received, the entire crew had tumbled aboard the big *New Yorker*. Hawsers were cast off, bells clanged, a siren shrieked, and the long, low and rakish looking fire boat, her big engines throbbing, was under way and headed toward the Narrows.

And while she was making that swift run toward the lower bay and the distressed *Siberia*, her crew was working madly. Canvas jackets were taken off the gun-like nozzles on her deck and on the pilot house. Sections of three and one-half inch hose were connected with the various outlets of her turret nozzles on either after quarter and tools were brought on deck. The *New Yorker* was clearing for action. The firemen were preparing to give battle to the fire monster raging in the hold of the doomed vessel.

Soon the *New Yorker* had traveled the Narrows and flashed swiftly by the grassy embankments of Forts Wadsworth and Hamilton. Then Sea Gate with its wireless station was passed and the entire lower harbor came into view. Dim in the distance, at the outer end of Ambrose Channel, was a big steamship headed in. She was making great speed for a tramper and the men on the *New Yorker* knew she must be the *Siberia*. The fire boat, like a cavalry charger, seemed to leap forward, stirred by the signs of battle. Great bow waves curled up in front of her sharp prow and the wash splattered the top of the deck rails. Forward she plunged, while her crew, like a boarding party of privateersmen of old, made themselves ready to mount the steep steel sides of the steamer and attack the fire.

With both vessels under full steam it did not take them long to draw together. Soon they were within hailing distance. Then the *Siberia* hove to, and the *New Yorker*, with a roar, swept down upon her and came about under her lee side. There were few visible

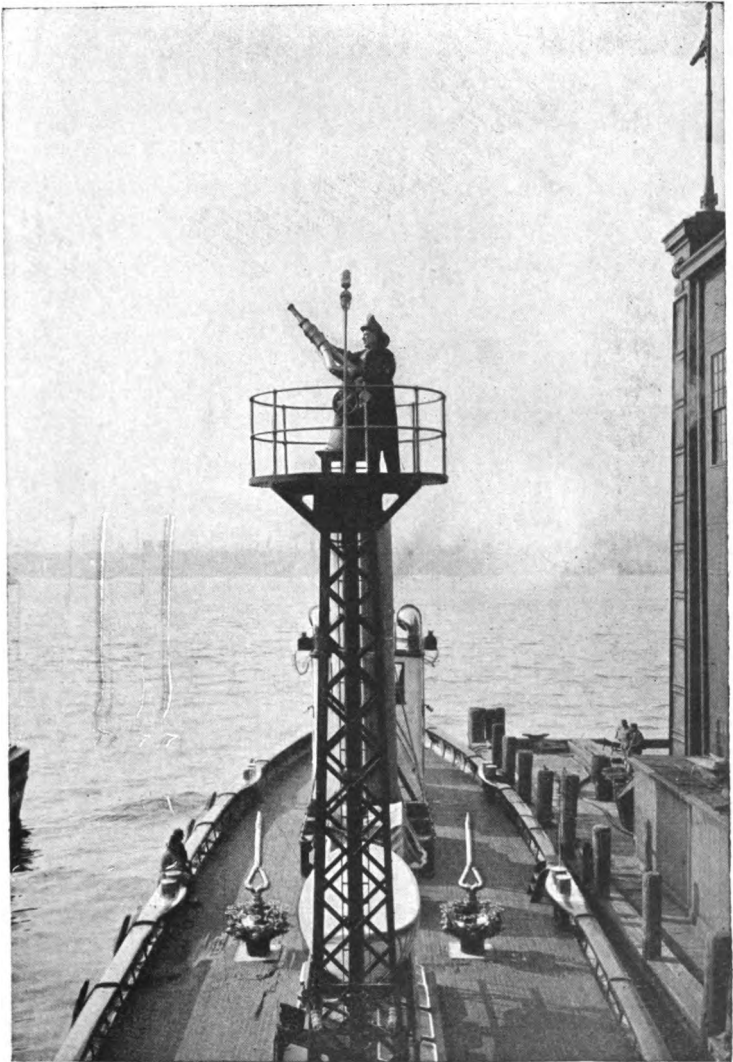
## 92 THE BOYS' BOOK OF FIREMEN

signs that the *Siberia* was afire. The hatchways were still battened down and only here and there from places where the paint had been worn off of the joints between the steel hull plates did tiny wisps of smoke trickle forth. But for all the firemen knew, a perfect inferno might be raging inside the big craft.

Up the steel sides they swarmed, some armed with axes, wrenches and claw tools, and others dragging lines of hose. Men were ready at the turret nozzles, too, and the *New Yorker's* pumps were quickly started, sucking water from the bay into her reservoir pipes inside the hull.

A brief conference followed between the captain of the fire boat and the captain of the tramper. The fire was in the forward compartment. It had been burning three hours. Oiled waste and paint were the only inflammables carried there. The fire boat captain heard and understood in an instant what kind of a conflagration his men had to battle.

"Forward compartment. Hatchways. Open her up" were his brief commands and in a



On Board the Fire Boat *Thomas Willett*  
Military mast in the foreground with nozzle ready for  
action.





flash the firemen were obeying. Three men with lines of hose covered the compartment, ready to send tons of water into the cavern the moment the hatchway came off. Then others began to work at the bolts that held the hatch in place. Madly they strove, wrenching bolt after bolt loose, and tearing away oakum packing that had been calked into the cracks to make the aperture watertight. Presently their task was accomplished and with a mighty heave three firemen lifted the big steel trap door and threw it out of place.

Instantly a cloud of smoke and flames shot skyward.

“Water—Start the lines!” cried the men with the hose, and a moment later the three big black serpents that curled over the deck from the fire boat became animated and, with a hiss and a roar, three mighty streams shot into the open hatch, beating back the smoke and flames, and cooling the hot steel plates inside. Other hatchways were opened, too, and the fire was ventilated exactly as the hook-and-ladder men ventilate a top story fire by opening up the roof

## 94 THE BOYS' BOOK OF FIREMEN

of a building. And then in no time a half dozen streams of water were pouring into the old *Siberia's* hold, smothering the flames within and driving out the thick black pungent smoke.

Soon the charge of smoke and gases inside the hull was so diminished that ladders were lowered into the blackness below. Then cautiously, one by one, firemen began to descend into the vitals of the ship, carrying lines of hose with them and electric flash lamps to see their way. It was hot and gassy in there still; but it was not unbearable. Cool air had worked its way into the fire-blackened hull and the hundreds of gallons of cold water from the bay that had been pumped into the big ship had relieved the condition tremendously. Cautiously the firemen moved through the blackness within the hull searching out the fire.

Up in one corner of the bow, at bay, but sullenly burning, they located the last of the flames. The fire had been crowded into a corner by the hose lines from above, but still it fought back and burned slowly until the invaders turned their water full upon it. Ten

minutes of that beating three and one half inch stream was all that was necessary. The fire demon hissed and roared and struggled to live under the terrific pounding of the water, but slowly and surely the flames were beaten out and drowned completely. The fire was out, and the *Siberia*, although somewhat the worse for wear, was saved from utter destruction.

But that is only one and a very common form of fire with which the Marine Division of a sea-coast city's fire department has to contend. In the miles and miles of dock fronts with their jutting piers and the capacious warehouses filled with millions of dollars worth of merchandise coming in or going out of the country is an excellent lurking place for the fire monster. And in the hundreds of merchant steamers that enter and leave a port, loaded with valuable cargoes, often of an extremely inflammable nature, there is a great deal to feed the red-eyed and roaring demon that causes so much destruction annually.

It is to protect these millions in property and the lives of the caretakers that the marine di-

visions are maintained. New York, Boston, Philadelphia, San Francisco, the Great Lake ports, and almost every other waterfront city of any importance has its complement of fire boats and its crews of trained marine fire fighters. But of them all, the most famous, the most daring, and the best equipped, is the department that patrols and protects New York harbor.

Ten boats compose the marine fire fighting force of New York. There are, however, stations for but nine of these doughty little craft, the tenth boat being used as a relief vessel to take the place of any one of the other nine disabled at a fire or laid up for repairs or overhauling. Saucy, indeed, do these low lying little fighters appear. And when ranged alongside of a big ocean liner they look little larger than a fair sized tug. But although they are small in proportions they are mighty as a giant when performing their work at a fire. Nearly every boat of the fleet can throw as much water as a battery of twenty fire engines and it is certain that few fires can withstand the

onslaught of one of these vessels once it gets into action.

In the center of the deck of the modern fire boat are two turret nozzles, each having connecting openings for eight lines of hose. Like the tentacles of an octopus, sixteen lines of three and one half inch hose (the largest used in fire fighting) reach out from these central pipes and the terrific streams of water that are hurled by these sixteen nozzles are enough to deaden the most vicious fire. Indeed a perfect wall of water can be formed by these lines working in unison with the deck nozzles that are operated from the pilot house and various other points on the vessel. The fire boat *New Yorker*, one of the older and the third largest of the New York fleet, can (after it has worked its way into position in the lee of a fire and come to a standstill) let go a broadside of twenty-four streams of water, thus hurling into the vitals of the fire 12,000 gallons a minute. These streams are so powerful that they will tear jagged holes in heavy woodwork or burst open a locked door.

## 98 THE BOYS' BOOK OF FIREMEN

The fire boats, needless to say, are made entirely of steel. Their hulls are of staunch steel plates, and all the engines, boilers and pumps are below deck. In truth there is practically nothing above the deck but the pilot house, the turret nozzles, and (in the case of the boats that possess them) a military mast, or water tower, on top of which is mounted a nozzle that looks very much like the quick firing gun of a battleship. These military masts have been found very useful of late for now two story docks and piers are being constructed and the nozzle in the fighting top can completely sweep the second story of a burning pier, while the hose lines and deck pipes are turned into the first floor of the imperiled structure.

Since there are no boats in the marine branch of the fire departments to correspond with the hook-and-ladder trucks of the land departments, the fire boats must necessarily be both engine and hook-and-ladder combined. In fact the fire boats, besides carrying equipment to fight the fire, also carry all the appar-

atus of a hook-and-ladder truck, excepting of course the big extension ladders and the more cumbersome appliances that are really not needed at waterfront conflagrations.

The firemen, too, who man these floating fire fighters must also be engine men and hook-and-ladder men combined, for they are not infrequently called upon to do both kinds of work. They do the fighting, the ventilating, the rescuing and everything else, for they have no brothers in uniform to rely upon in emergencies. It is interesting to note that the men who compose the crews of the various fire boats patrolling New York harbor are for the most part former sailors. There are any number of discharged "jackies" now in this branch of the fire fighting service, and every now and then an order is sent to every fire station in the department, requesting all men who have ever seen service at sea, either in the Navy or in the merchant marine, to ask for a transfer to the fire boats.

This keeps the Marine Department up to the highest standard of efficiency, for the men of



## 100 THE BOYS' BOOK OF FIREMEN

the fire boat crews know every part of a ship and are not likely to lose their way or waste valuable time in searching for sections of a vessel to which they have been ordered by their officers. These men, too, know the seriousness of a fire on shipboard, and they know best how to attack so as to keep the flames from the vitals of the vessel. They can, also, work in unison with the members of the fire-swept vessel's crew, which counts for a great deal at some of the fires that the Marine Department is called upon to fight.

Unusual, indeed, are some of the conflagrations that these men have to attack. Whether in vessels or on the docks, no two waterfront fires are alike, and for that reason the firemen-sailors have to be on the alert every moment and ready to cope with almost any situation. Oil ship fires are naturally the most dreaded of all river and harbor fires, because of the ever present possibility of explosions or spread of the flames. But the fires at which the marine men get the most grueling treatment are those that break out in the hold of a ship and which

cannot be reached unless the firemen descend into the hull and fight it at close range.

These fires correspond to the cellar fires that the hook-and-ladder and engine men have to contend with on shore, except that they are more difficult, because they are more closely confined and very much harder to ventilate. To venture down into a smoke and gas charged hull requires the utmost of courage, and many a member of a fire boat's crew has been prostrated and put on the hospital list for a week or two because he got his "dose" while carrying a line into the hold of a burning vessel.

One of the most difficult fires ever conquered by the crew of the *New Yorker* within recent years was in the hold of a big steel tramper just in from the Pacific and loaded to her decks with bales of jute from the South Sea Islands. Fire broke out while she was discharging her cargo at a South Brooklyn dock, and, of course, the *New Yorker*, being the nearest fire boat, was the first to arrive.

Every hatchway opening and all the port holes of the tramper were vomiting thick yellow

smoke when the marine fire fighters swarmed aboard, and they knew in a moment that a cargo of jute was burning within the steel hull. Line after line of hose were stretched in and presently great battering streams of water were dashing into the hatchways. But as the smoke thickened and the firemen worked their way into it, they all began to cough and choke. The gas that accompanied the thick yellow smoke was overpowering. Soon it began to "get to 'em," as the firemen express it, and one by one the "blue shirts" began to drop, unconscious and helpless. It was weeks before the men of the *New Yorker* got over that fire, for, it was said, the gas generated by the burning jute was almost as dangerous as the trench gases used in the European war.

Oil fires are of course the most spectacular, the hottest, and the most difficult of all water-front fires to control. They, also, occur more frequently than any other form of fire that the Marine Department has to contend with, and when a big tanker gets aflame the men know that they have hours of hard work ahead of

them. The fact that oil and water refuse to mix adds to the difficulty of the firemen's work and sometimes tests the courage and fighting ability of the officers and the entire crew of a fire boat.

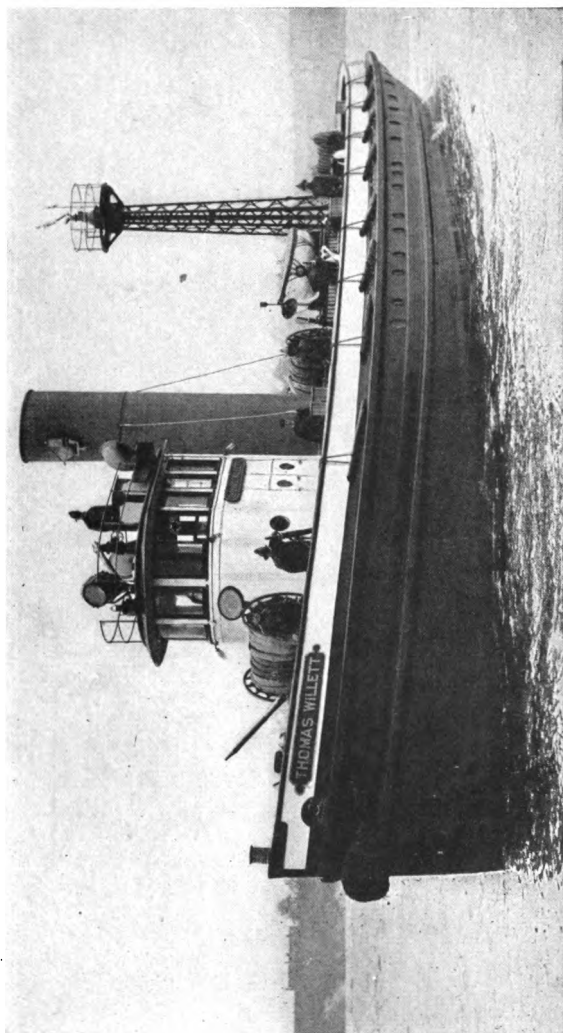
The usual method when an oil steamer is afire, is to flood the compartment in which the fire is raging and crowd the burning oil against the decks or bulkheads and so smother the flames. But this cannot always be done and more than once an oil fire gets entirely away from the fighters, the burning oil running out of the ports or openings in the vessel and spreading broadcast over the surface of the bay or river. Then the blazing vessel and the fire boat, too, is surrounded by a sea of flames for the floating oil burns on until it is consumed.

Oil ships are always towed away from the docks and well out into the harbor, so that the floating oil will not work its way under piers and start new fires. Often lines of hose are played onto the hot rivets and seams between the steel plates of a vessel hull, for the burning

oil frequently works its way through these tiny openings and floats off on the tide.

It is fortunate, indeed, that the hulls of fire boats are of steel, for more than once they have had to forge ahead through a fiery sea of burning oil in order to get up close to the threatened vessel. No wooden hulled boat could breast such a tide without becoming afire immediately.

One of the most spectacular events in the history of the Marine Division of the New York Fire Department occurred at an oil steamer fire one night when a great quantity of burning oil floated away from the tanker and started down the tide menacing all wooden craft in the vicinity. It happened that a wooden hulled auxiliary launch carried by one of the fire boats had left the vessel to circle around the burning steamer and get into communication with another fire boat which was working on the opposite side of the doomed ship. There were several tug boats with lines of water on the burning tanker, too, but when the oil began to float down the tide they moved discreetly away. And as one backed out of range, with a roar of



Near View of the Fire Boat *Thomas Willett*.  
This vessel is one of the newest of the New York Fleet of Fire Fighters and  
is equipped with military fighting top.



steam and a great churning of her propeller, a shout went up from the fire boat crew, for in the weird light from the burning vessel the firemen had seen a man fall from the gunwale of the tug into the water.

An instant later his head appeared above the waves and to the horror of all the spectators, it was evident that he was in the very pathway of the sheets of burning oil that were floating swiftly with the tide. The firemen stood transfixed for the moment. Accustomed as they were to terrible sights, the possibilities of the scene before them made them quail. The man in the water was not twenty feet away from the sheets of flames upleaping from the river's surface. Not twenty feet away from instant death, and death of the most hideous sort. He struck out with powerful overhand strokes in a desperate effort to elude the fire monster. He was swimming toward the tug which had backed away so swiftly that before its propellers could be reversed again it was eighty or ninety feet distant from the unfortunate member of its crew.



## 106 THE BOYS' BOOK OF FIREMEN

With strength born of desperation the stricken man swam. He bent every effort and his strokes made the water boil. But the tide was swift, too, and aided by the night wind the flames spread with lightning quickness. Long arms of fire reached out as if to seize him, while the main body of fire advanced solidly, gaining upon the swimmer every moment. He could not save himself—that was apparent. He could only hope to struggle until the end.

But suddenly out of the darkness behind the line of fire shot a launch; the wooden launch from the fire boat. The firemen were going to attempt the rescue. They were going to try and breast that tide of fire with a wooden hulled boat. It seemed like suicide, but on rushed the little boat full speed ahead, a fireman in the bow ready to seize the doomed man, another at the wheel steering a steady course and the third at the engine. Courageous men they were, for they were driving into the jaws of death. Would they make it! Could they make it! Could they beat the fire monster to his prey? And if they did could they work their wooden

craft out of the grip of the flames again before it was consumed!

Then suddenly something else happened. There was a hiss and roar and a stream struck the open water between the fire and the doomed man. It was a perfect curtain of water meant to hold the advancing oil flames in check. And it accomplished its work amazingly well. A fireman with presence of mind had turned one of the nozzles on the deck of the fire boat so that its stream struck in front of the burning oil and held it back from reaching the swimmer. Steadily but unerringly it was played in that position while the swift little launch swept up under its protection and the firemen made the rescue. And then with the stream from the fire boat covering its retreat and holding at bay the liquid fire the craft turned quickly about and scooted for the open harbor while cheer after cheer was raised by the men on board the tugs and the fire boats.

Of dock fires there are many varieties, and all of a more or less dangerous nature, because of the many different kinds of freight that is.

stored along the waterfront awaiting transportation. Fires in coal docks are particularly dangerous to handle, as are conflagrations that start in grain elevators. In the case of grain fires great care must be taken, for too much water poured into an elevator will cause the grains to expand to three or four times their normal size and this happening to millions of little particles generates enough pressure to burst open the sides of the strongest building and cause an avalanche of soggy grains.

In New York Harbor the fire boats are stationed so that when an alarm is transmitted from any of the waterfront fire boxes two boats immediately respond, usually coming from the north and from the south of the point of fire. On the second alarm, one more boat is added to the fleet. According to the method of attack of the Marine Division, the first boat to arrive at the fire always runs to the lee of the fire, or to be more explicit, it gets ahead of the fire if possible and tries to fight it back against the wind.

In the case of a dock fire, this is not difficult.

## WHEN FIRE BOATS ARE CALLED 109

Because of their fireproof construction the boats can run up almost into the flames and stay there just as long as the men at the various nozzles can stand the heat. The minute the water is started the streams are all directed so as to head off the fire and force it back and off the end of the pier. The second boat to arrive takes its position on the windward side of the fire and, also, tries to get water ahead of the flames if possible.

In opening up, or ventilating dock fires, the men from the fire boats are always assisted by the hook-and-ladder companies of the city department, for they, too, respond to dock fires. So do the engine companies, and the lines they "stretch in" are of a great deal of assistance to the fire boat men.

But they frequently repay the land department men in this respect, for they respond to alarms for fires that are located a block or two from the waterfront and "stretch in" a number of their big three inch sections of hose, which the engine and hook-and-ladder men reduce to two and one-half inches and use ex-

## 110 THE BOYS' BOOK OF FIREMEN

actly the same as they would use just so many additional high pressure street hydrants. Some of the newer fire boats, the *James Duane*, *Thomas Willett*, and others, have been able to supply a dozen or more different streams of water to fires three blocks away from the waterfront.

## CHAPTER V

### THE MEN WHO GO IN UNARMED

To plunge into a burning building as an attacking force, fully armed with hose and other fire fighting appliances, is one thing, but to enter the same flame-swept building, unarmed and with the purpose of withstanding the flames and smoke as long as possible merely to save property, is an entirely different matter. The attacking force can always give battle; blow for blow, so to speak, and they have better than an even chance of winning out. But the men who enter the building to save property must take all the blows of the fire monster and try to stand up under them while they go about the task of protecting the valuables threatened by the flames. That is the work of the sturdy smoke eaters of the Fire Patrol.

Every city of importance has its Fire Patrol.

## 112 THE BOYS' BOOK OF FIREMEN

The organization may be known by many different names, such as the Salvage Corps, the Protection Brigade, and the like, but always their duties are essentially the same—to save property and life from fire and water damage. In New York this important unit of the City's fire fighting force is known officially as the Fire Patrol, and there are seven companies in the Borough of Manhattan alone. There are few who have not at one time or another caught a glimpse of the brilliant red patrol wagon dashing madly through a crowded thoroughfare with a dozen or more white coated and red helmeted individuals clinging to the running-board and gazing eagerly ahead for signs of the fire they are going to.

This red patrol wagon looks very much like the old hose wagons used by the New York Fire Department ten years ago. They resemble, too, the present high pressure wagons of that same department, for they are equipped with scaling ladders, lanterns, copper fire extinguishers, etc., but instead of the big sections of hose stacked up in the bottom of the wagon,

there are piles of folded cloth that look, at a glance, like great stacks of blankets. These are large squares of heavy, water-proof tarpaulins. With nothing more than these are they armed, yet the duty of the men of the Fire Patrol is to go into a burning building and save property; as much of it as they can. And you can be sure that they save a great deal. Indeed the value of their salvage annually can be estimated in millions of dollars.

Before going into the details of the way these men do their work, it may be interesting to know more about the reason for the existence of the Fire Patrol. First it must be explained that the Fire Patrol (or Salvage Corps, if you prefer that name) is not a branch of the Fire Department that is maintained by the government of every large city. It is, strictly speaking, the representative of a dozen or more Fire Insurance Companies and the work that the organization does all tends to benefit the residents and merchants of a city who carry fire insurance on their property.

But, of course, a big organization like that



is not so selfish an institution that the men only save the property of people who possess fire insurance. Indeed no. The truth is the men of the Salvage Corps never know who is insured and who is not. Their first duty is to save property at every fire they attend, and save property they do, regardless of whether the owner is insured. So you see that while the insurance companies maintain the Fire Patrol, every resident of the city receives the benefit of their work.

Long, long ago, before New York had a paid fire department, in fact even before the days of horse cars or city water works, the city had a Fire Patrol. Vastly different than the present one it was, to be sure, but the work was essentially the same—to save property.

In the Seventeen Hundreds when Greenwich Village, Manhattanville, and Yorkville were all tiny communities on Manhattan Island and when New York was a town at the extreme lower end, the residents decided that besides a volunteer fire department there should be a certain group of men whose entire duty at a

fire should be to save property and lives if necessary.

Accordingly a number of men banded themselves together and called themselves "The Mutual Assistance Bag Company." That may seem a queer name, but when it is explained that each man was armed with two canvas bags resembling the present day mail pouches, the significance of the word "Bag" can be understood. These bags were meant to carry the property saved by the men who owned them, and each bag bore the name of the owner. The men of this strange company also wore black and white caps with the initials "M. A." embroidered on them.

Every time an alarm of fire was sounded through the village of New York, these men seized their caps and bags and hurried to the scene of the fire. They would then enter the burning building and gather up all the valuable property they could lay hands upon and deposit it in their bags. Then with each bag full, they would hurry to their headquarters where they would leave the bags until the time when

the owner of the property contained should call for them.

“The Mutual Assistance Bag Company” was, indeed, a strange organization. Among its members were men whose names have since become of historical importance; many of the names that now appear on New York’s street signs were on the roll of the company. There were Veseys, Barclays, Beekmans, Bleekers, Stuyvesants, and many others among that group of men who composed New York’s first salvage corps.

Just how long the organization survived is a matter for guessing, but its successor, in the early Eighteen Hundreds, was a volunteer company which had, among other equipment, a light wagon which was kept in a building downtown. The wagon was taken into the street by members of the salvage corps every evening at seven o’clock, and put back into its quarters at daybreak. This was done so that in case of a night fire the men would not have difficulty in getting at the wagon in the dark. This existed

at about the time the country was being stirred by a war with Mexico.

But as New York grew into a city with tall buildings, big stores and warehouses, and became a trade center with millions of dollars worth of goods passing in and out, the need for more adequate protection against fire and water damage became evident. It was then that the fire insurance companies combined their interests and decided to maintain a Fire Patrol of picked men whose one duty should be to save property from unnecessary damage during a conflagration. And the outgrowth of that early company is the present motor-equipped and highly efficient organization.

At a big fire it is not always the smoke and flames that do the most damage. It is the "wash" or the "drip," as the firemen call it, that is the destructive agent. Water ruins more of the valuable stock or furniture in a building than the fire. Not that the firemen are careless about the way the water is used in extinguishing a fire, for they are not. They

## 118 THE BOYS' BOOK OF FIREMEN

have any number of rules against the careless use of water or chemicals and a greater part of their instructions at their training school is concerning methods of avoiding needless damage by water. Yet for all that when a building is aflame, the damage by water is of course a secondary consideration. Putting out the fire is all-important and when tons of water are used to quench the flames one can be very certain that the building and all it contains is well water-soaked by the time the conflagration is extinguished.

The amount of damage incurred on account of hundreds of gallons of water seeping through ceilings, from floor to floor, or washing in torrents through openings, stair wells, or air-shafts, can hardly be estimated. In buildings where big stocks of laces, or silks or fine fabrics are kept, the loss to the owner is tremendous, and of course if he is insured the insurance company must make good his loss. So you can see that every dollar's worth of goods saved from damage by the members of the Fire



The Steamers Are Still Used However  
One of the old horse drawn Engines has been motorized.



The High Pressure Wagon  
This is the modern Fire Engine in cities where high  
pressure water systems are maintained.



Patrol means just so much less to be paid by the insurance companies.

The Fire Patrol companies, which are composed of a captain, two lieutenants and from sixteen to twenty men, are located about the city in such a way that every section is covered. Some of the companies patrol three or four engine and hook-and-ladder company districts and quite often the swift red automobile patrol wagon has to travel dozens of blocks of crowded city thoroughfares. But the drivers of these patrols are experts and they can bring their charge through the most popular streets of the city at top speed and without accident.

Alarms are received in the Fire Patrol Stations over the regular city alarm system (the workings of which you will learn later) and they respond exactly the same as a fire company. But upon reaching the scene of the conflagration their work is of an entirely different nature than that of the fire fighters.

If the patrol wagon arrives at the scene of the fire before any of the fire department ap-



## 120 THE BOYS' BOOK OF FIREMEN

paratus, several patrolmen hasten into the building with fire extinguishers, axes, and the like, for very often they can catch the blaze before it has had a chance to spread, and put it out even before the city firemen arrive. More than once this has happened. The men of the Fire Patrol, by being quick to respond to an alarm and beating the regular fire fighters to the blaze, have prevented a number of small fires from developing into big conflagrations. By their quick work they have saved thousands of dollars in property and incidentally they have saved hours of hard and dangerous work for the firemen.

If, however, they arrive after the engine and hook-and-ladder companies have taken their place, then the patrolmen do not bother with fire extinguishers or anything else except their lanterns or electric torches and the big squares of folded tarpaulins. Seizing these they follow their commanding officer into the burning building, facing the smoke and flames, falling floors and stairways and every other peril that fire fighters have to contend with.

These heavy covers are fourteen by twenty feet, and twenty-four are carried by each patrol. This constitutes a single wagon load, but if these are not enough to protect all the perishable goods in the fire-ridden building, a second and third wagon load is hurried to the scene.

On entering the building in which the fire is located, the officer in command of the Fire Patrol makes a hasty survey of the situation. The floor immediately under the fire is invaded first and the big tarpaulins spread over furniture, counters, packing cases and everything else that needs protection. The big heavy sections of cloth are arranged so as to catch all the drip from the hoses that are being played into the fire on the floor above and to shed the water and convey it into unused corners of the room.

In top story fires or any form of "up-stairs" fires, the Fire Patrol men have a great deal to do and often a very short while to do it in, for working on the floor below the flames is not very easy. Indeed the patrolmen have to take

## 122 THE BOYS' BOOK OF FIREMEN

just as much punishment in the matter of smoke, heat and gases as the members of the engine and truck companies. Sometimes they work under perfect deluges of water, and hot water, too, for the gallons of water thrown into the heart of the fire on the floor above often becomes boiling before it seeps through the floor and ceiling and reaches the floor on which the Fire Patrol is working. Many members of the Salvage Corps can show red and wrinkled hands and faces, attesting to serious scalds that have resulted from steaming water that has passed through the fire above them and become very hot.

Then there are the dangers from falling floors. More than one fire patrolman has lost his life because he lingered too long in a burning building in his persistent effort to save property. In truth it seems that the Fire Patrol stations throughout the city are draped in mourning more often than the fire stations, this being an honor that the entire company pays to some one of their number who has passed out. Some heroic rescues have been

made by the Fire Patrol; the rescued often being men in the uniform of their own organization, for the fire patrolmen are always facing danger and working in what they call "tight places."

This recalls the perilous situation that a group of men of a Fire Patrol Company found themselves in at a big fire in a four story downtown woolen house recently, when but for their cool headed courage they would probably all have perished. This is how one member of the Fire Patrol related the exciting incident:

"It was a three alarm blaze an' a mighty long 'roll' for us fellers. But we hit the fire just about the time the Battalion Chief sent in the second and third. She was a 'worker' all right for the fire was a-ripping out the insides of the top floors an' a-smokin' to beat ol' Number 7. We saw mighty quick it was a big fire, and we saw, too, that we needed all the covers we had on the wagon and then some. So we unloaded her and sent her right back to the station for another lot.

"Then the lieutenant, who had gone into the

building as soon as we hit, came out a-shoutin'.

“ ‘Hurry it there, fellers, hurry it, before they get all their pipes a-workin’,’ meanin’ of course, that he wanted us to get things covered up in the building before more hose lines were stretched in, which was goin’ to happen mighty soon judgin’ from the way the engine companies were arrivin’.

“So up we goes, a big bunch of us and every last man loaded down with covers. Phew, but the smoke was thick inside there. T’ minute I got my head in, I got a dose of it that made me cough right away. But I was game, so on we goes follerin’ the first line o’ hose stretched in, which went right on up the stairs to the fourth floor. The ol’ fire was tearin’ away to beat everythin’ up there. We could hear it grumblin’ and a roarin’ when we hit the third floor and we could hear the swish of the hose, too, slappin’ and splashin’ away at the fire and makin’ things sizzle. Oh, it was a real fire, no use talkin’. An’ it was only just startin’, too, bad luck to it!

“The first engine company had worked its

way right up to the fourth floor and was fightin' the fire on its own ground, but they were havin' a real tussle with it we could see, for every once in a while they would be drove back down the stairs by the sheets of flame and smoke that jumped out at 'em. But they stuck like leeches and drove the flames back every time they rallied.

“We hadn't much time to watch 'em a-fightin'. We had our work cut out for us, too. There was fifty or sixty thousand dollars worth of woolen goods on the third floor which had to be protected against the drip from the water those fellows were squirting into the fire and we had to get busy right off, for already it was runnin' down through holes in the ceilin' where plaster had dropped off. In on the floor we went and started a-laying our covers. Say, but wasn't it thick in there! Smoke so heavy you could chew it! Couldn't see the men you were workin' with at the other end of a tarpaulin. And hot, well I guess it was. Hot as all git out, and the water that was drippin' through was hotter.

“Work fast we did; that is as fast as we could under the conditions, and the lieutenant was rustlin’ around shoutin’ orders and coughin’ and chokin’ between times. We were all coughin’ and spittin’ for that matter, for we sure was gettin’ punishment. How long we were in there I can’t really tell. It seemed like an hour but of course it wasn’t. But anyway we were pushin’ things as fast as we could and gettin’ well over towards the other side of the buildin’ away from the stairway when suddenly there was a terrible roar overhead.

“CRASH! BANG! Rip-p-p! we heard.

“‘Good night,’ says I, ‘there goes the roof. T’ hull thing’ll be down onto us next.’ But with the crash came a big roll of smoke and a flash of flames that was a scorcher. I looked back of me towards the stairs, and shoot me, if half of the fourth floor and half o’ the third floor hadn’t been torn away! Come to find out, the big water tank on the roof had let go. Fire had burned away the roof under it and loosened its support and down she came, a big 10,000 gallon tank filled with water. The

heavy thing had dropped clean, and cut its way clear through every floor almost cleavin' the buildin' in half. Thank the powers none o' us was under her when she dropped!

“But in a minute it looked as if we'd all been saved from bein' crushed to death only to be roasted by the fire, for there was a yawnin' space on the floor from end to end of the buildin' and we were on one side o' that space while the stairway was on the other. And to make matters worse the back draught, the new openin' in the buildin' made, carried the fire down to our floor and the one under us. There was the fire over us, in front of us, and under us, and all we had was a section o' wooden floor to stand on until—until—well I gave myself about ten minutes longer at the most, and I guess the rest o' the fellows felt the same way. It sure threw a scare into us.

“Lucky for us, the stingy piece o' floor, left by fate for us to stand on, reached to the front of the buildin'. To be sure it sagged a lot and wobbled a good bit, and we were all scared it would let go most any minute and pitch us into



that hole in the buildin' down which the water tank had plunged. Steppin' easy and holdin' our breath we crept single file towards the front of the buildin'. Two windows were left to us; but both o' them was a long way from the fire escapes, which were located in the center of the front wall.

"I tell you the situation looked mighty serious. The fire was in back o' us, and rippin' and roarin' like a pack o' wolves and there we were three stories above the street, and with only about three minutes longer to live. No, the hooksie company didn't have a chance to get a ladder to us. By the time they got it butted we'd have all been roasted. The rubber of our coats was meltin' like wax.

"Fate seemed with us after all. It gave us a mighty small chance to escape but we were so desperate that we were willin' to take any kind of an opportunity and be grateful for it. A four inch curbin' of stone, sort of a continuation of the third story window sill, had been worked into the face of the buildin', and a narrow strip extended from our window, a dis-

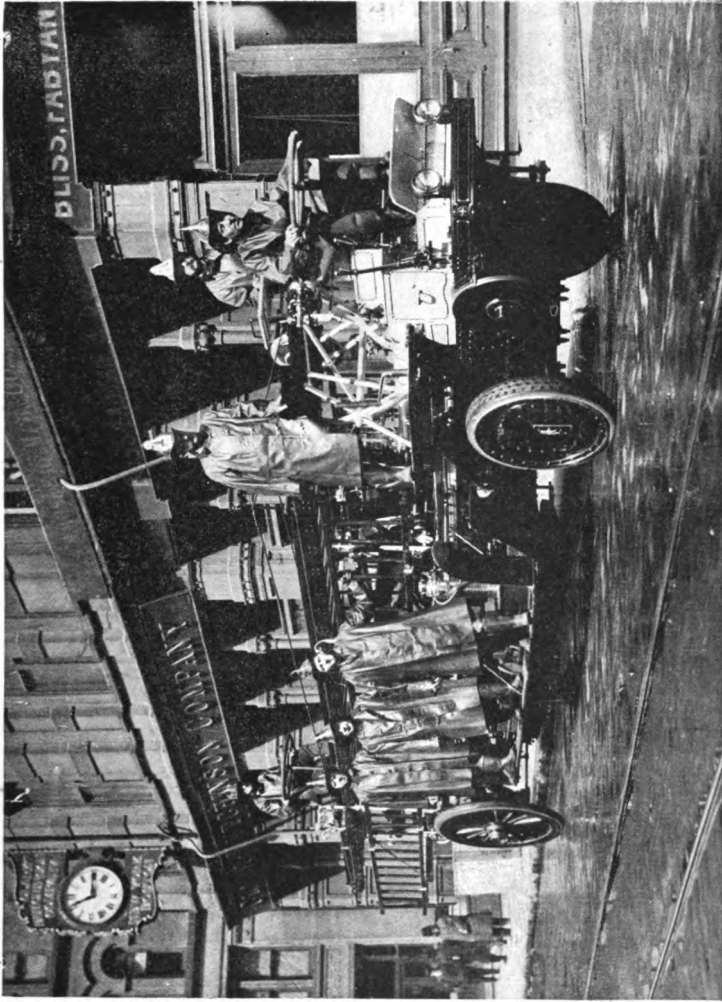
tance of five feet to the end of the buildin'. And the buildin' adjournin' our buildin' was a three story affair with the roof reachin' about man-height above our window sill. If we could stick to that four inch strip o' stone and work our way over the five feet of space to the cornice of the roof next door we were saved. But we'd have to be mighty quick about it, or—well, I hate to think of the end.

“The lieutenant (he was a gritty boy in a pinch) was the first to take a chance. ‘I’ll show you we can do it,’ said he, spittin’ on his hands. Then he hopped up onto the window sill and grabbed at the window jamb for support. ‘Here goes,’ he said, ‘here goes. If we git one man on that roof the rest is easy. He can help all of us over. So if I fall, fellers, some one else has got to try right after me.’

“Then he put his foot out on the strip o’ stone and slipped cautiously along inch by inch. It was a ticklish job we could see, and we thought every second would see him lose his balance an’—an’, well it would have been the end of him. We held our breath, every one

of us. He reached out cautiously! His fingers just touched the cornice! A few inches more he moved! Just a hand's breadth so he could get a grip! Then he hooked his fingers about the edge! Cautiously he made his grip firmer! Then he was ready, and while we called words of encouragement to him he let go his hold on the window jam with his right and swung free, clinging to the edge of the roof with his left hand. And as he swung out in mid air, we gave a yell of triumph which was echoed by the firemen in the street and a crowd of about five hundred spectators, for in a twinkle he had both hands on the cornice and was liftin' himself to the roof, safe and sound.

“In a minute he was lyin' flat on his stomach and reachin' far out over the edge of the roof to take the hand of the next man who was standing ready on the window sill. One by one he swung us safely out of the window and onto the roof beside him and the last of us, which was me, didn't git out none too soon for the rest o' the roof and the third and fourth floors let go a second after I was safe. Yes, sirree, I



The Modern Hook and Ladder Truck  
Big motors have taken the place of the fire horses in almost every city.



think my hair turned gray durin' the few minutes of agony I spent, waitin' my turn to be hoisted to safety."

There is one form of fire at which the Fire Patrol has very little work to do and that is at cellar and sub-cellar fires. Of course the men enter the cellars with the firemen to see if there is anything stored there of a valuable nature that can be protected from fire or water or can be removed from the cellar entirely. But as a rule their services in conflagrations of this nature are not extensive.

After a fire is out the patrolmen have work to do, too. They are supposed to board up all dead lights and grating that are removed or smashed, and they are, also, given the task of boarding up all broken windows and doorways and guarding fire damaged buildings until the insurance claims are settled. But only one or two men are necessary to accomplish this.

One of the difficult phases of the Fire Patrol's work, at big fires where a great deal of water has been used, is draining the cellars into which all the water eventually drips. If the

fire at first promises to be a big one a man armed with a sledge hammer and a lantern is sent into the cellar immediately. His duty is to locate the sewer outlet for the building. This is usually situated in the floor of the cellar and is protected by a cast iron jacket. A blow or two from the sledge cracks this and the jacket is easily removed. And with this opening to drain it, no matter how much water drips into the cellar, the place never becomes flooded.

At a recent fire in Pearl Street, New York, a Fire Patrolman nearly lost his life while searching for the sewer outlet for the building. The fire was in the three top stories of the building and two alarms had been sounded. Three companies had lines stretched in when he started into the cellar. But while he was searching around in the darkness down there, a water tower arrived and was put into action. Her powerful nozzle was set to sweep the fourth floor clear of the fire.

The moment the heavy stream was started, fire and smoke were literally hurled from the fourth floor down the elevator shaft and into

the cellar. The flames and smoke shot into the basement so thick and fast that the patrolman below became panic-stricken. Then to cap this climax the elevator fell with a crash which added to his fright. He broke his electric torch in his mad effort to find his way out and in the darkness he was completely lost.

Smoke was rolling into the cellar in great clouds by that time and making his position more difficult. He rushed headlong about his dark prison, shouting at the top of his voice; but in a few minutes the exertion and the thick smoke prostrated him and he lost consciousness.

Fortunately his shouts had been heard by firemen working in the rear of the building, and in a few moments word was passed along to the men of the Rescue Company who had responded on the first alarm, and in a jiffy they started out to locate him. First their oxygen-Blaugas outfit was brought into action and a big hole cut in the dead-lights, or glass covered grating that leads to the basement. They had to cut out about ten feet of glass, iron and con-



## 134 THE BOYS' BOOK OF FIREMEN

crete, before they could get a ladder into the cellar, and even then, after they had donned their smoke helmets, more than twenty minutes elapsed before they could find the prostrated patrolman. The brave chap spent three weeks in a hospital following his adventure, and it was some time after that before he was fit for duty again.

## CHAPTER VI

### MILE A MINUTE RESCUE MEN AND OTHER AIDS TO FIRE FIGHTERS

FIREMAN Senica Larke (now Lieutenant Larke) knows what it is to see a man trapped behind iron barred windows, surrounded by flames and smoke, with no possible way of escape open to him except to have those iron bars cut. Larke knows, too, the feelings of a man fighting against time, trying madly to sever those same iron bars with two or three flimsy steel saws. He knows because he faced that same situation once, fighting a stubborn and determined battle. And his bravery earned him a promotion from engineer to Lieutenant, a medal of honor, and five hundred dollars in gold.

One wintry morning, three or four years ago, when the mercury stood very close to the zero mark, every downtown engine and truck company in Manhattan was called to a five

alarm fire in Broadway. A half hour later the news that the huge Equitable building, opposite Trinity Church yard, was being devoured by flames spread the length and breadth of New York City. It was a tremendous fire and the morning newspapers stopped the presses on the city edition, and waited for a story of the conflagration. By telephone, telegraph and word of mouth news of the great fire was spread and, although it lacked an hour or more of dawn, a great crowd quickly gathered in lower Broaway, and police reserves from several stations were called to keep the spectators out of danger.

But somehow a man in citizen's clothes managed to get through that cordon of police and, dodging the hurrying firemen and the network of hoses sprawled across the street, he rushed through the broad doors of the big building and down into the basement where the great safe deposit vaults were located. He was a man from the company which maintained safe deposit vaults in the Equitable Building, and

at the risk of his life he plunged into the story below the street level of the threatened structure, to see that the books and other valuable documents of his company were not being exposed to danger.

At the time he entered, the blaze had been raging nearly an hour and the entire north side of the structure was an inferno of flames. Scores of hose lines had been stretched in up the broad stairway, and scores more were being played from the street and from the tall buildings across the way on Cedar Street. Veritable cascades of water were flowing from windows and doorways and freezing into giant icicles. Indeed the whole exterior of the building was draped in ice. And the wind driven spray from the thundering streams was frozen into steel-like particles which cut the face and hands of the firemen as they worked. Every "blue shirt" on the fighting line that day was literally frozen into his rubber coat and leather helmet. They were covered from head to toe with ice and they were forced to work madly

to keep from freezing to death. It was a bad fire and zero weather, a combination that only the stoutest hearted fireman can face.

When all these things are considered the man from the safe deposit company must have possessed his share of grit, too. Perhaps if he had known what was in store for him, he would have hesitated a few moments before plunging into the basement below the roaring flames. But, although he saw how terrible the fire was and how hard the firemen were working to master the situation, he rushed through the thick smoke into the hallway of the building and down the broad, marble stairway that led into the ante-room to the big steel vaults. It was a hard trip, for the smoke had worked its way down into those depths before he arrived, and everywhere was a gaseous yellow haze that swirled round and round, blinding him and making him cough and gasp.

On he pushed. Soon he reached the bottom of the stairway. Then progress was a matter of feeling and groping his way foot by foot. He could not see, for the smoke was too

thick, and besides his eyes smarted so that tears flowed. At first he thought he had lost his way. Soon, however, his hand encountered a marble wall. Then, steadying himself and guessing as to direction, he moved cautiously forward feeling for a door. Soon he reached one just under the stairway. It was the entrance to the ante-room for which he was searching. Hastily he brought forth his keys, inserted the right one, turned back the lock and opened the door. Inside there was scarcely any smoke. The door, the only entrance to the room, fitted closely, and there were no draughts to draw in the smoke. It was cool there, too, and in the light of the gray dawn that filtered through the iron barred window from the street, he could discern the various objects in the apartment. The chairs, tables, his desk where some papers he was after were concealed and—

**CRASH!**

The jar shook the entire building and hurled him to the floor. He was dazed for a moment, but when he discovered great volumes of yel-

low smoke rolling into the room he quickly roused himself, and what he saw made him gasp. There, where he had stood but a moment before, was piled up tons and tons of marble, iron and woodwork. The great heavy stairs that reached from the basement to the top floor had given way to the heat of the flames and come down flight after flight and piled up in the basement, tearing out the walls of the ante-room, shattering the heavy mahogany door, and cutting off all ways of escape for the man who had ventured down there to save his valuable papers. And, although he did not know it, under that mass of ruins that made him a prisoner was buried the body of at least one valiant fireman, Battalion Chief Walsh, who had been leading an attacking force of "blue shirts" of Engine Company No. 4 when the crash came.

For a few moments the imprisoned man grew faint with the horror of the situation. Clouds of smoke were working between the ruins, and here and there he could see ugly, dull red flashes showing that the fire had followed the

crash and was now devouring everything in sight in the basement. But only for a moment could he allow himself to be panic stricken. He knew now that he must find a way out of the room, and quickly too, or—well, it would be too late. One way only was there to the open air and that through the window into Cedar Street. But that, alas! was made impassable by heavy bars of iron!

Madly he rushed across the room. The glass in the window frame had been shattered by the crash of the falling stairway. He vainly hoped that a bar or two had been jarred loose, also. With both hands he shook them, but to no avail. They were rooted fast in the stone work of the building! At this revelation he groaned aloud, for he realized that they held him at the mercy of the smoke and flames!

Twenty feet away, in the street, a hose crew was directing a stream through a second story window. These men could help him! They must help him! It was their duty to save him, he told himself. Then at the top of his voice he shouted to them. They heard him. The



## 142 THE BOYS' BOOK OF FIREMEN

terror in his voice reached above the thunder of the water and the roar of the flames, and drew the firemen's attention to his ashen face pressed against the iron bars. Then in a flash the whole situation was revealed to the smoke eaters.

These engine men dare not to leave their hose line under any conditions, but while they still battled with the fire they signaled for help. And help arrived in the form of firemen armed with axes, sledges and crow bars. But such armament was of little avail against the inch thick irons that held the man a captive. They struck till the sparks flew and they pried and hacked until their tools were useless, but still the iron bars resisted. And all the time the imprisoned man watched them through the smoke his heart grew heavier with every failure.

"A saw! A saw! Can't you get one?" he groaned. "It's my only hope!"

And, as if in answer to his question, two figures appeared, and in their hands they grasped a half dozen tiny steel saws used to

cut through iron. They had been sent by an officer to gather all the iron saws they could secure from the engineers and janitors of the surrounding buildings, and they were just returning with their supply. Eagerly they bent to their task; a task that seemed almost hopeless now, for the smoke was pouring into the doomed man's apartment in thick blankets, almost suffocating him and the men who tried to work at the barred window as well. A saw was passed inside to the prisoner and he was instructed to work, also.

With trembling hands he attacked one bar while the firemen started to cut away another. Oh, how slow, how painfully slow was the work! Seconds seemed like minutes, and minutes like hours. Back and forth they worked the tiny whisps of steel which rasped loudly but hardly seemed to make any impression on the cold iron. Yet they worked on valiantly. And when one fireman, coughing and choking with smoke, was driven from the task, another reached down and took up the work where he left off. There they stayed, working in the

## 144 THE BOYS' BOOK OF FIREMEN

blinding smoke and the icy drip of the hoses, under the tottering walls of a flame swept building to free one human being imprisoned below the sidewalk level.

And the man inside worked, too. With superhuman effort he kept himself alive in the smoke and gases and worked and worked. Slowly, but surely, he was forcing his saw through one iron bar, while the men outside kept working at the others. How long their task took no one can say accurately. But they worked to the point of exhaustion, each of them. One after another they were driven away from the low and narrow window, some of them staggering under the punishment they received from the cold and the smoke. But Fireman Larke (an engineer of a searchlight engine that had been operating at the fire before dawn gave the smoke eaters light enough to see) stayed at it longest of all. Valiantly he sawed, and sawed, and sawed. The smoke got into his lungs and choked him. The cold drip of the hoses splashed over him and froze his hat and rubber coat into a skin of ice an

inch thick, but still he worked, while thousands of spectators beyond the fire lines and his brothers in uniform watched him eagerly. The building was a mass of flames by this time and nearly all of the upper floors had given way. Fortunately they had not carried all the way to the basement, or Larke's task would have been useless.

On he worked. There remained a half inch of iron to be severed. Now a quarter of an inch; a quarter of an inch and the man would be saved. On struggled Larke. His hands were numb and lifeless. The flesh was worn from his fingers and three broken saws lay at his feet, but still he strove to rescue the solitary prisoner in the basement. An eighth of an inch now remained to be cut. The doomed man was all but unconscious. He had long since ceased to saw and with both hands he gripped the window sill to keep from falling backward into the room.

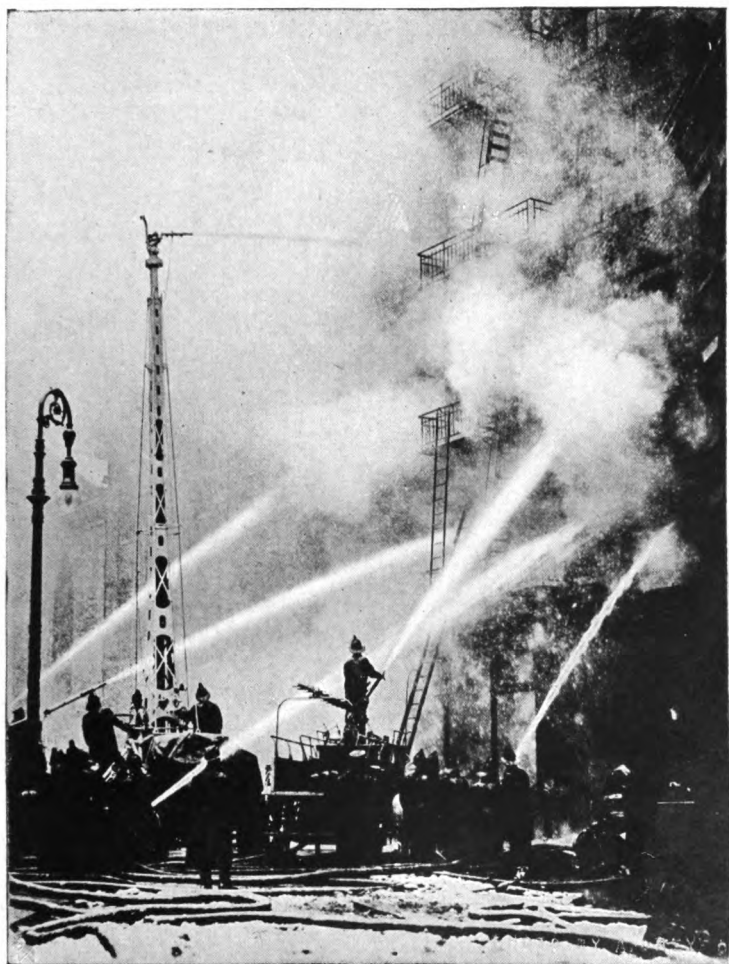
Could Larke make it before the prisoner succumbed to the smoke and gases! He was determined he would! Only a few more strokes

of the saw! Only a thread of iron to be cut!

At last the bar fell away, and the opening was large enough to drag the limp form of the man through! Strong and willing hands reached in and seized him by the arms and shoulders, and then, amid the cheers of thousands of onlookers, he was dragged from his prison pen, and given over to the care of an ambulance surgeon.

As mentioned at the beginning of this chapter, this supreme show of grit won a great many honors for Senica Larke, but his act resulted in something of far more importance than these honors to the men of fire departments throughout the country. From that day on plans were afoot to establish a company of trained men to take care of just such rescue work, and eventually the first rescue company on record, Rescue Company No. 1, was organized in New York.

This company is equipped with every appliance that could possibly be used in rescue work, such as smoke helmets, life guns, life nets and



Where the Water Tower Is Needed  
A big fire in Chinatown, New York. The high pressure  
wagons are helping out with their deck pipes.

24

a list of other things of a similar nature. And one of the most important units of this fine outfit is an oxygen-Blaugas blow torch, and the necessary tanks of gas and other equipment. This is a very recent invention designed primarily to cut steel and iron, and, with it at hand and ready for use, no such harrowing scenes as those enacted at the Equitable fire are possible. Indeed had Fireman Larke and his associates possessed such equipment, the man held a prisoner in the smoke filled room would have been freed inside of ten minutes.

The principle of the oxygen-Blaugas torch is rather interesting. There are two tanks, one containing oxygen and the other the Blaugas. These are both connected to a blow pipe which has two vents, one within the other. The gases unite at the vent, and, when they are ignited, a bluish white flame leaps forth with a spluttering hiss. The virtue of this flame is that it generates a tremendous heat which, a few inches from the mouth of the pipe, reaches about 2,400 degrees; enough to melt almost anything meltable with which it comes in con-



tact. This flame, when applied to iron or steel, heats up the metal immediately and in a twinkling the apparently irresistible substance begins to melt away in drops. An iron bar an inch thick can be cut in a matter of seconds, and the outfit carried by the rescue company can make twenty-six one inch cuts in rapid succession on one charge of gas.

It can be easily seen that nothing can block the entrance of the smoke eaters when the oxygen-Blaugas torch is ready, and, in rescue work of the kind undertaken by Larke, the torch is invaluable. In the matter of forcing an entrance into warehouses, or cellars barred by iron doors it is very handy, too, for the hinges and locks of the heaviest doors can be severed in no time, throwing the building open to the fire fighters, or freeing whoever may be trapped within.

Rescue Company No. 1, sometimes known as the Smoke Company, is composed of picked men. It is made up of two officers, a captain and a lieutenant, and ten firemen, and these men are acknowledged to be the quickest thinking,

the quickest acting and the most courageous men in the entire fire department. They are nearly all honor men, and they deserve to be because of the nature of the work they are called upon to accomplish almost daily.

To first alarms sent in from thirty-three different stations this company responds. On second alarms the men cover half of the Borough of Manhattan, and on third and fourth alarms they cover almost the entire city. Moreover, they can be summoned anywhere at any time by the transmission of 2—2—2—(box number)—1 over the city alarm system. Six taps are sounded when the company has returned to its house after a fire and is ready to report for duty again.

The equipment of the Rescue Company is interesting. The vehicle is a low slung and very speedy automobile with a body resembling that of the Fire Patrol Wagon. A mile a minute is not an unusual speed for this wagon to travel at night when the streets are free from traffic and the way is clear for a whirlwind dash across town or up the deserted ave-

## 150 THE BOYS' BOOK OF FIREMEN

nues. In response to urgent calls the shining red wagon makes sixty miles an hour, even in the day time with the streets teeming with horses and vehicles, for the man who drives it has nerves of steel and the courage of a lion. In and out, ahead and behind trolley cars and automobiles he sends the flying red wagon, missing certain destruction by inches. And the ten men he carries in it cling fast like flies in a gale of wind, but apparently quite unconcerned as to the danger.

Nothing in the nature of fire fighting implements, except small extinguishers, are carried in the Rescue Company's vehicle. It is stripped down to necessities only and these are lashed fast so as not to be jounced out during some one of the flying runs through the city streets. Among the most important items of the company's equipment are eight smoke helmets, two telephone helmets with five hundred feet of telephone cable, two pulmotors, two stretchers, the recently mentioned oxygen-Blaugas blow torch equipment, life lines and

## MILE A MINUTE RESCUE MEN 151

life guns, two jimmies, four axes and two tiny extinguishers.

Of all this outfit of course the smoke helmets are the most important and the most used. These helmets will permit the men to enter almost any apartment regardless of the density of the smoke or the danger of the fumes that are given off by the contents of the burning building. Equipped with these the men of the Rescue Company can go into the worst form of a cellar fire and fight for an hour before they are driven forth to seek a new supply of oxygen.

Hooded with a smoke helmet a fireman is a curious looking sight. He resembles a diver who has put on his head gear, but neglected his rubber uniform. The helmet is made of reinforced leather and has a face of very heavy mica. A pneumatic cushion surrounds the portion of the front that fits against the face, and when the helmet is buckled on firmly the fireman inflates this cushion until it fits tightly about his face and jaws, with just enough room

## 152 THE BOYS' BOOK OF FIREMEN

to permit the play of muscles. The important part of the outfit is not the mask, however, but a curious set of mechanisms strapped to the chest and back of the wearer.

First of all there is a tank of oxygen about fifteen inches long and four inches in diameter which contains, under 2,250 pounds pressure, enough oxygen to last one man more than an hour. This tank is connected to the helmet by two hoses, one of which passes through a cartridge containing potash, and the other into a rubber bag strapped to the fireman's chest. A reducing valve is connected close to the outlet of the oxygen tank, reducing the tremendous pressure of the air to normal. From this valve the oxygen passes into the reservoir on the fireman's chest and thence, by another length of hose, into the mask where it is discharged.

The air expelled from the fireman's lungs passes, by means of another valve, into the hose which leads to the potash cartridge where all the carbon is removed, after which it is returned to the reservoir to be used over again.

The entire outfit weighs forty-eight pounds and is very cumbersome, but in spite of this drawback a man can accomplish a great deal of work while using it.

Two of these smoke helmets are equipped with telephones which connect with five hundred feet of cable and batteries carried in the company's wagon. By means of these, scouts can be sent into a smoke filled compartment to make observations and report to the men in the street as they move from room to room, or from one floor to another. These scouts often carry a one inch rope tied to their waist so that, if any accident befalls them while they are in the burning building, they can be quickly located and brought out. They, also, have a code of signals which can be transmitted by means of the rope when they are wearing a helmet not equipped with a telephone set, or when a 'phone set gets out of order. Attached to these helmets are tiny meters which register the condition of the oxygen in the tank and by watching these meters the fireman can tell the

## 154 THE BOYS' BOOK OF FIREMEN

amount of his air supply, and in that way determine just how long he should stay in the smoke or gas-filled room.

The pulmotors, of course, are only used in case of emergency. This appliance is of recent invention, but in its short career it has saved many thousands of lives. It is a machine designed to pump oxygen into the lungs of a man who has been overcome by smoke, gases or poisonous fumes. The mechanism is very similar to that which distributes the oxygen to the smoke helmet, and when a fireman or a victim who has been rescued from a burning building is brought to the street, unconscious and on the point of death from having breathed in great quantities of smoke, the respiratory instrument is brought into action and in no time the prostrated one's lungs are filled with life-giving oxygen, which purifies the blood and starts normal breathing once more.

The pulmotors are not used often, fortunately, but the smoke helmets come into action at practically every fire at which the Rescue Company is called upon for special work.

## MILE A MINUTE RESCUE MEN 155

Protected thus against the smoke and gases, these men are able to accomplish all manner of work, making rescues, removing explosives and carboys of acids and poisonous liquids from buildings, fighting fires where unmasked men dare not venture, and clearing the way for the engine and hooksie men to do their work.

In the short time the company has been in existence it has been called upon to face all sorts of perilous conditions in burning buildings, and to do many forms of dangerous work. Not long ago the men were called to a cellar fire in Canal Street. When they arrived they found a thick yellowish smoke curling from the hatchway, and the deadlights that had been broken open by the hook and ladder men in their ventilating work. The engine men had attempted to enter the cellar but failed after several of their number had been overcome. Every time a hose company charged the hatchway with a line of hose the men began coughing and choking in a most uncomfortable manner. Finally, after a fight they managed to get into the smoke hole just once, but the fumes were



so heavy that before they could turn around and climb back to the street level again several were made unconscious.

For a time the officers in charge of the fire were puzzled to know what caused this condition, but when the Rescue Company arrived the mystery was quickly cleared up. Equipped with their headgear four firemen descended into the cellar and a few minutes later sent out word that there were carboys of nitric acid in the place. Some of these carboys had been cracked open by the heat, spilling their contents onto the floor. And the moment the acid came in contact with the charred wood a terrible gas was generated which was almost deadly in its effects.

After the four rescue men made their inspection the rest of the smoke brigade were summoned into the cellar, and, while some of the men stood off the flames with a line of hose the rest struggled with the heavy containers of acid. Soon one carboy was brought to the street, then another and another, and before many minutes had elapsed the entire con-

tents of the cellar had been removed and the flames quelled.

Ammonia fires, or rather fires in manufacturing establishments where great quantities of ammonia are stored, also mean work for the men of the Rescue Company. With fire raging in a building where a refrigerating plant is located, the firemen know that there is danger from the ammonia fumes and a special call is immediately sent in for the Rescue Company, if that organization has not already responded to the alarm. Ammonia is used in refrigerating in big markets, breweries, and a host of other industries, and the chemical before it is put into the pipe system of the refrigerating outfit is stored in glass and wood carboys. If the flames approach the point where these carboys are stored the heat starts the ammonia steaming and the pressure of the steam either blows out the cork or cracks the container, leaving the liquid free to fill the room with nauseating and often deadly fumes.

In these ammonia fires it is the duty of the Rescue Company to enter the building and re-

move all of the carboys; and in they go, each one regardless of the fact that, if anything should go wrong with his smoke helmet and he should become separated from his companions in the meantime, he would be dead before help arrived. Only once has a smoke helmet failed to work properly, and, but for the fine constitution of the man who wore it, and the quick thinking of his companions, the incident might have proved fatal.

While the men were working in various parts of a cellar heavily charged with smoke and deadly fumes, one man became lost, and to make matters worse something went wrong with the valve of his head gear. The flow of oxygen into the helmet was becoming less and less. Desperately he tried to adjust the mechanism, but his efforts were of no avail. The lack of fresh air inside the mask was suffocating him and he knew that if he opened the valve that is used for work in clear air, the smoke and fumes would rush in and overpower him. He suffered terrible mental and physical agonies while he hurried here and there through the

thick black smoke, hoping to find a companion, or locate a line of hose that would lead him to an exit.

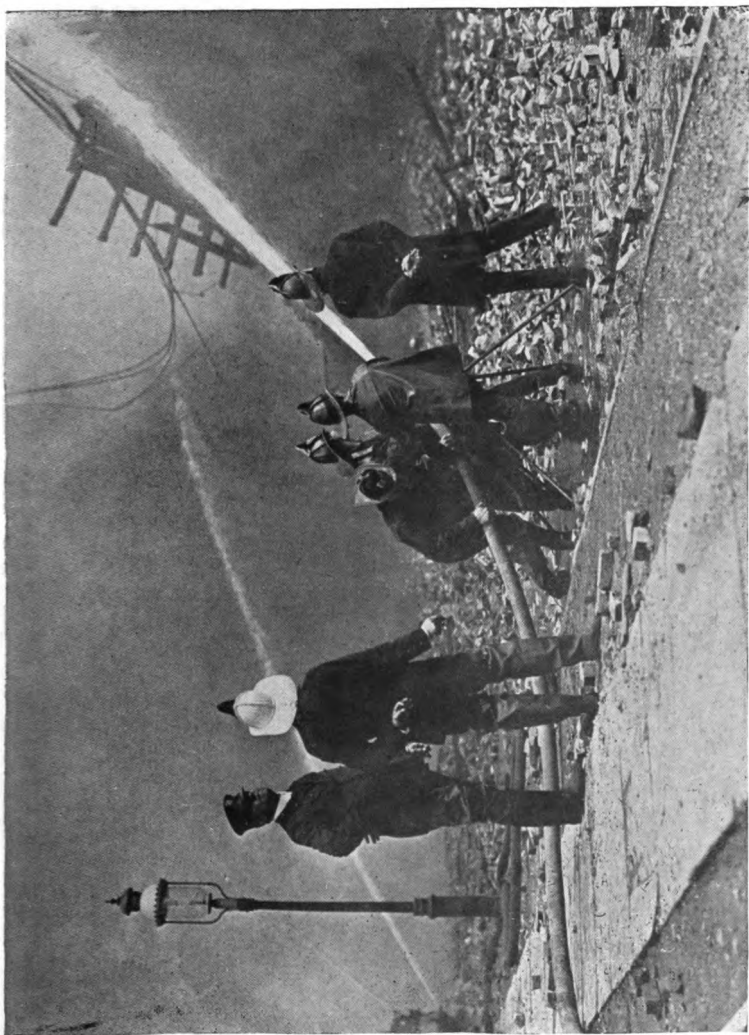
And all the time he was growing weaker and weaker through lack of fresh air. He struggled hard and kept up his courage as best he could while he stumbled about there looking for some means of relief. But soon he could master himself no longer and in desperation he opened the valve, only to lose consciousness the next moment.

Fortunately the officers of the Rescue Company had been keeping close watch on all the men who had entered the cellar, and after a short time the prostrated fireman was missed. Every one guessed immediately the possibility of something having gone wrong with his smoke helmet, and a rescuing party of his companions started into the cellar to find him. He was discovered only just in time, and if it had not been that he was in the very best physical condition the probabilities are he would not have survived the grueling experience.

Besides organizations such as the Rescue

Company the firemen have other valuable aids that have been developed to assist them in fighting fires. One of the more modern of these is the searchlight engine. Night fires have always been difficult to fight, especially those known to the firemen as "smokers." Thick clouds of black or gray smoke only serve to make the darkness of night heavier and with the absence of light to pierce these thick banks of smoke the firemen were forced to fight the flames, blindly, or to rely upon hand lanterns or electric flash lamps to assist them in their work.

These conditions were remedied by converting four of the old fashioned horse drawn steam engines into what are known as searchlight engines. The pumps of these big appliances were dismantled and the steam driving apparatus attached to a good sized generator which was mounted on the engine where the pump had been. Then, on either side of the driver's seat, were placed huge searchlights, each about eighteen inches in diameter. They were, of course, put on swivels so that they



**A Boat Line at Work**  
An example of how the men of the Marine Division often come to the assistance of the land forces.



could be tilted or turned to almost any angle, throwing their powerful rays of white light in any direction.

The powerful light projectors are now used to search the walls of burning buildings for any signs of cracks, or to pierce smoke banks and illuminate the interiors of buildings by throwing rays through opened windows. At a night fire a very weird picture is presented when the long fingers of light begin to roam here and there, searching into the ruins; but, needless to say, they have been of great value to the fire fighters wherever they have been employed. In truth they have become so necessary that now plans are under way to build special high speed automobiles, containing two mounted searchlights and huge sets of storage batteries. These will eliminate the cumbersome engines and will make the lights much easier to handle.

Several interesting fire engines have also been developed to make the work of the fire fighters less difficult. These are all of the automobile type and are designed for use in different communities. Chemical engines or



## 162 THE BOYS' BOOK OF FIREMEN

scout wagons have been built for work in suburban districts where one and two family frame dwellings of the detached variety are located. Fires do not occur so often in these communities and when they do they rarely develop into conflagrations of any consequence if reached in time by swiftly traveling scout wagons. These engines carry two huge copper tanks as a rule, and each tank is filled with a solution of water and bi-carbonate of soda. In connection with this solution is a cartridge of sulphuric acid. When the engine is called into service a mixer is started inside the tanks which churns up the acid and the soda solution, forming a heavy gas and charging the tanks at about one hundred pounds pressure.

By the time the engine reaches the scene of the fire the tanks are fully charged, and one fireman carrying the light rubber hose can smother a threatening blaze in no time. It is because this form of apparatus is light and can travel about very swiftly that it is called a scout wagon. One of these scout companies is supposed to respond to a first alarm and, if

it is found that it cannot cope with the fire, then the larger engines are called for.

Other forms of scouting apparatus are built on the lines of tandem motor cycles. These are used in suburban and rural communities, too, and, because of the speed with which they respond to an alarm, they are said to be very effective. The motor cycles carry two firemen, two small fire extinguishers, an axe and short pike pole, lanterns, two lengths of hose and a box of tools. In responding to fire alarms these motor cycles dash out ahead of the regular companies and reach the fire much in advance of the heavier apparatus.

In some places light automobiles similarly equipped and carrying in addition several short lengths of ladders and four or six firemen, are used. They constitute a complete fire company, and several such companies are employed to patrol the outskirts of large towns, or extended rural districts.

New York, the city of Newark, New Jersey, and various other communities have adopted still another type of fire engine which is also

very effective. Like all modern fire fighting apparatus this, too, is of the automobile type. At first glance it looks for all the world like a Fire Patrol wagon, except that the hood of its motor is larger. It is known as a combination engine and hose wagon, the body of the car being devoted to hose carrying room, while spacious running boards allow the firemen a place on which to cling while the apparatus is rushing madly toward the scene of fire. The pumping apparatus is all concealed under the hood, the seat, and the forward section of the body of the car, and there are hose connections on either side, similar to the connections on a high pressure wagon.

But the most interesting part of this engine is the arrangement of the motor. This is set up almost the same way as all automobile motors, but it is arranged so that it will either drive the car or drive the pump. Thus, the water is pumped into the hose lines by the same engine that moves the vehicle. Of course the engine cannot be made to drive the car and operate the pumps at the same time, but that is

hardly needed, for the apparatus must necessarily be standing still and connected to a street hydrant before a stream of water can be furnished. This is the very latest type of fire engines and the prediction has been made by some fire fighters that eventually it will supplant all the old fashioned steam engines in cities where high pressure systems are not maintained.

## CHAPTER VII

### THE NERVE CENTER OF THE FIRE DEPARTMENT

**THERE** have been some memorable nights at Fire Alarm Headquarters in New York City, as there have been memorable nights in the Alarm Headquarters of many other American cities. Such periods happen now and again in almost every community and when they occur the nerve and skill of the telegraph operators in charge of the alarm dispatching is put to the acid test. Take the famous "three cornered night" in New York, for instance. Three four-alarm fires all going at once and all in the same district of the city. Three four-alarms coming in over the wires at the same time; three separate groups of engines and hook-and-ladders to be dispatched; and three new territories left unguarded by apparatus until relief engine companies could be hurried up from other districts to stand guard while the other

companies battled. And all this to be done in a matter of minutes. Indeed it *was* a night to be remembered at Fire Alarm Headquarters, and it has gone down in the annals as one of the most trying periods in the history of the department.

It seemed that night as if rioters were loose in the city. Three great red splashes reflected on the night sky, marking the location of each fire, and through the city streets for an hour or more, roared a shrieking, clanging stream of high pressure wagons, engines, hose wagons, fire patrols, hook-and-ladder trucks, fuel wagons and searchlight wagons. They came from everywhere and seemed bound in every direction. Some rushed pell mell toward the scenes of the fire while others crossed the city in opposite directions. There seemed no sense or reason in their travels, but they were moving about according to orders issued by the dispatchers at Fire Alarm Headquarters, and, when they finally came to a halt in the place designated, each one formed a link in a new line of protection that had been established across the city.

In the event of a big fire, or several big fires, one of the many duties of the telegraph operators or dispatchers at headquarters (and it may be said to be their most important duty) is to see that all sections of the city are adequately protected against fire no matter how many engines or hook-and-ladder companies are drawn from certain areas to fight the fires already in progress. This "covering up" is a very vexing problem sometimes; but it must always be solved and in a hurry, too, or before any one realizes it a second or third fire might start in an unguarded section and there would be no engine or hook-and-ladder companies to go to it.

It is only at Fire Alarm Headquarters, the nerve center of the department, that this can be done. The department chief cannot do it because he is not always in touch with all divisions of his force, but the chief dispatcher knows at all times where every one of the engines, hook-and-ladder companies, and the rest of the apparatus are located, and at will he can move them about the city exactly as if

he were playing a game of checkers on a huge checker board. This being the case it devolves upon him to direct the movement of the entire department in case of big fires, and it is his task entirely to see that no section of the city is unprotected for any length of time.

When he saw that twenty-five engine and truck companies were required at one of the big fires, on the memorable "three cornered night" and that eighteen were needed at another and thirty-four were in demand at the third, he knew exactly where each of these companies was drawn from and he knew how many blocks of territory were left unguarded. It happened on that particular night that nearly all the companies from the Battery to Thirty-seventh Street were called out, leaving the entire lower end of Manhattan unprotected. But it was not unprotected long. Just as soon as the final alarm had been sent over the wires, the chief dispatcher studied his map of the city. Then swiftly he began calling over his telegraph keys, moving an engine company here, a truck company there, a high pressure wagon



## 170 THE BOYS' BOOK OF FIREMEN

somewhere else, and when he had finished every section of the city was protected in spite of the fact that seventy-three fire companies were in action.

From this it is easily gathered that the alarm system of a modern city is rather complexed and that the men who are in charge of it have a great deal of work to do and what is more a great deal of responsibility. In truth, the two or three men who, with wits constantly on an edge, watch the various instruments at Fire Alarm Headquarters, can be said to be guarding the entire city. Without them the fire fighting force would be helpless. But for their vigilance fire could sweep the community and lay it in ruins. They are at the nerve center of the entire fire fighting force and upon their action depends almost everything except the actual fighting of the fire itself.

They must know every minute of every hour which engines are at fires, which are at their stations, which fire boats are ready to respond to alarms, where this Battalion Chief is, where that water tower is, and a thousand and one

other details of which it would seem almost impossible to keep track. Moreover, their knowledge must be absolutely accurate. There is no such thing as a mistake known among the fire alarm operators. They *must never* make an error, for the tiniest slip in the reading or transmission of an alarm, or in any other detail, may mean the destruction of millions of dollars worth of property and the loss of human life.

To facilitate the handling of alarms and the response of the various engine and hook-and-ladder companies, a certain basis as to locations of companies and alarm boxes was established first. Somewhere a genius for figures, mapping, planning, charting, and the like, and one who knew fire risks and hazards and was well versed in fire protection, developed the fire fighting system of New York by establishing the engine and hook-and-ladder companies at the points where they were most likely to be needed, and where they could cover the greatest amount of territory in a reasonable length of time. In like manner the fire alarm

boxes were distributed over the community, new ones being added to the great system as they were found necessary. Now there are 839 street boxes alone, to say nothing of scores of special building alarm systems, etc. In this way the city is well guarded for there are points every few blocks apart from which citizens or policemen can ring in an alarm to headquarters.

The alarm boxes are located on iron posts on the top of each of which is placed a red street lamp, thus making the alarm stations discernible blocks away at night. A very simple contrivance is the alarm box. The outer door opens readily at the turn of a knob, and as soon as it swings free a bell begins striking. This is not the alarm bell but a tell tale bell to notify citizens or policemen in the vicinity that some one is opening the box. Just inside the door is a second door, through a slot in which protrudes a short hook. It is by means of this hook that the alarm is sounded. Pulling the hook down as far as it will go, and releasing it, sets in motion a tiny wheel inside the box. The

wheel is connected to a regulation Morse telegraph instrument and as the wheel revolves it ticks off certain numbers on the Morse key. For an instance—if the alarm box in question were known as Box 253, the wheel clicks the instrument .. . . . .—thus indicating the number of the station. Five times these dots are repeated and five times the dots are heard at Fire Alarm Headquarters, for you see this box is connected with headquarters over a big electric circuit.

There are 52 of these electric circuits like great loops of wire reaching around the city with from fifteen to thirty-five boxes on each circuit. But since each box has a separate number it does not make any difference how many boxes there are on the same line because each box or station is known by the number it rings.

The fifty-two circuits or lines of wire cable worm their way here and there underground through the city in big conduits, until they reach Fire Alarm Headquarters, where they make their appearance at a big board that

reaches across one entire side of a long room. On this board there are fifty-two Morse keys, and a maze of switches, flashers, and the like, each one indicating a distinct circuit. These are all arranged in columns and at the top of each column are the numbers of the various boxes that ring in on the circuit that the particular column indicates.

When box 253 taps in, the dots sent out by the key in the box are recorded on the board with a buzzing sound accompanied by strokes on a small bell. One of the signals at the top of the column flashes also and the operators in the room, who are constantly watching the board, spring to attention. "Two—five—three—" reads the chief operator as the taps come in. "Two fifty-three, Morton and Hudson streets," he calls while the second round is being rung off.

Everybody is in action now. One man hurries across the room to a small cabinet filled with drawers. One of these drawers is pulled open and his practiced eye skims its contents. Before him are arranged in order scores of

tiny brass discs each bearing a number corresponding to an alarm box on the system. In an instant he has found a disc with No. 253 on it and has taken it out. The chief operator then hurries to his side and glances at the number to see that it is right.

“Right-O, go ahead,” he cries as he turns to his board again and the assistant takes the brass wheel over to a glass covered case which holds a wrought brass telegraph instrument of very large dimensions. This is called the “combination” and it is by means of this machine that the alarms are transmitted to the fire companies’ quarters. There are two knobs of metal protruding beyond the glass case and the assistant operator fits the brass wheel on first one of these and then the other. As soon as he shoves the disc home on the first knob, he starts the mechanism and the brass disc ticks off the dots again. Dot, dot,—dot, dot, dot, dot, dot,—dot, dot, dot, they sound as the wheel revolves. A second circuit the tiny disc makes and the dots are repeated, then swiftly the disc is transferred to the second knob of

## 176 THE BOYS' BOOK OF FIREMEN

metal and here it is revolved once, ticking off the same dots. And, when this operation is finished, the alarm of fire has been sounded throughout the entire borough of Manhattan and every fire fighter is at his post ready to "roll."

Here is how it all happens. In each engine and hook-and-ladder station and all other apparatus stations in the city, are what are called house sets. These are composed of a "joker" or little bell, and a gong, besides a Morse telegraph key, a big clock to which is attached a plunger trip and (in the stations where they still use horses) a trip that releases the chains in front of the horses' stalls and permits them to take their places under their harness. These house sets, like the street boxes, are all on big circuits. There are eleven of these circuits for the little alarm bell, or "joker," and nine for the big gongs, and these, too, by means of cables under the streets, all reach out to Fire Alarm Headquarters. The machine under the glass case is connected to these lines and when the assistant operator put the brass wheel in

place and started the machine going, first the little bell was rung in each station, following which the big gong sounded.

So soon as the little bell begins to tap in the fire houses (a "joker" is located on each floor in a fire house), the men start for their quarters, coming out of bed with a bound or hurrying from any section of the station in which they may be at the time, and sliding to the apparatus floor by means of the brass rods. By the time the second taps have sounded on the small bell, every man is in place and ready. With the first tap of the little bell, the trip on the clock is operated and the clock is stopped, thus recording the exact time the alarm is received. And with the first stroke of the "joker" the house watchman (or the man who is detailed to stay at the desk during that particular period) goes to a card index or "assignment box" and while he is counting the strokes on the bell he is turning over the cards until he comes to the one bearing a number corresponding to that being sounded at the time. This card tells the location of the box and the num-



## 178 THE BOYS' BOOK OF FIREMEN

bers of the companies that respond to calls from that box on the first, second, third, fourth alarms and fifth alarm (if it happens to be a box where a fifth alarm is recorded). The index is so arranged that he can find the box card the instant he knows the full number and, ascertaining the location, he calls: "Box 253, Morton and Hudson streets."

"We roll!" shouts the commanding officer. "Go boys!" and with a rattle and a roar the apparatus gets under way and swings clear of the station while the firemen scramble aboard and get ready for their breakneck ride through the crowded city streets. From three or four different stations high pressure wagons (or engines if the territory be outside of the high pressure district) are rolling toward the place where alarm box 253 is located, and from two other stations hook-and-ladder trucks are clanging their way swiftly toward the same point. A fire patrol company and a water tower, too, is hurrying in the same direction, if the fire is in the district of big buildings, and from some one of the fire stations a Battalion

Chief in his fast red automobile is speeding onward.

Of all the apparatus in action, this red automobile will probably be the first to arrive at the alarm box, or if not the first, it will be there before the first line is "stretched in," for it carries the commanding officer of the battalion of fire fighters. The moment the automobile draws up in front of the burning building the officer becomes a man of action. With practiced eye he takes in the entire situation. He knows at a glance just how dangerous the fire is. He knows the contents of the structure, he knows how inflammable the surrounding buildings are, and, after a quick trip inside along with the first engine company, he knows how much of a start the fire has on the firemen and whether it will be necessary to have more men and apparatus at his command in order to handle the situation. Long experience and his training at Fire College (the officers attend a college conducted especially for them) teaches him all this, and, inside of five minutes, he knows exactly how the work of quelling the

flames must proceed and how many companies will be necessary to cope with the blaze.

He then summons his driver, the chauffeur of the red automobile, and directs him to go to the nearest telephone and call up Fire Alarm Headquarters and get in touch with the dispatcher in charge at the time. The driver proceeds on this errand immediately and in a jiffy the dispatcher knows where the fire is, the number of the building, the name of the street, the condition of the blaze and the number of companies that are to remain and fight the flames.

If the blaze is not a big one, the commanding officer, before he directs the driver to the telephone, details one or two companies to stay and put out the flames while the two hook-and-ladder companies and the remaining engine companies are sent back to their houses to be ready for another alarm in the same district. The driver then reports over the telephone which companies have been sent to station and which have been detailed to remain.

However, if the blaze is a big one and is threatening to spread destruction to surround-

ing property, the commanding officer, after detailing his driver to the telephone, hurries himself to the alarm box from which the first alarm was sent in and prepares to send in a "second." This is done by unlocking the inner door of the box, which exposes the Morse equipment, and with this, by hand he proceeds to send the news to headquarters that more companies are required. In sending in this second alarm, the Battalion Chief sounds "two twos"; that is, he taps in two dots twice in succession to indicate that he is sending a second alarm across the wire, following which he taps off the number of the station thus . . . . .  
... and the alarm is received at headquarters 2—2—2-5-3-. For a third alarm he would send "two threes," for a fourth alarm "two fours" and, if the box were a fifth alarm station, "two fives" would be necessary to transmit that call.

At Fire Alarm Headquarters these second alarms come in on the "box board" the same as the first alarms but they are not sent out on the combination "joker" and gong machine.

## 182 THE BOYS' BOOK OF FIREMEN

Instead they are sent out by hand over the station circuit by means of a special Morse key which connects with all apparatus houses over the "joker" circuits, or the wires that sound the little bells.

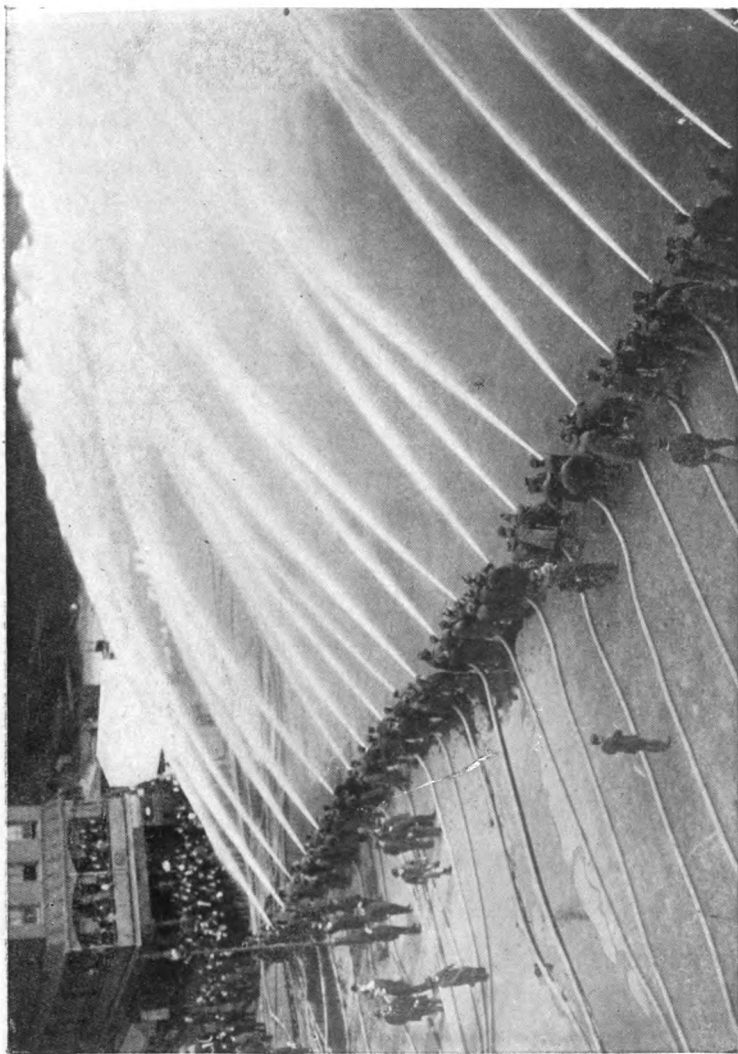
There are any number of special calls that are transmitted over the Morse keys of the department, and, although they are very simple, they all mean a great deal and they are all a part of the very accurate system which keeps the chief dispatcher at Fire Alarm Headquarters in touch with every company in the department. For instance, companies returning from a fire, or companies sent back by the commanding officer as being unnecessary at a small blaze, are supposed to send in "return taps" over the Morse key at their station. "Three fours" are the return taps and a man sending them in must first send a preliminary call announcing whether his company is a hook-and-ladder company or an engine company, the Rescue Company, fuel wagon or what not. There are special preliminary taps for this purpose, five taps indicating that an engine

company is calling, seven taps showing that a hook-and-ladder company is returning, eight taps designating a fuel wagon, and nine taps a water tower. The return taps are sounded thus: assuming that Hook and Ladder Truck No. 34 were returning to its station, the man detailed to send in return taps would first send the preliminary seven (.....) showing that it was a hook-and-ladder company calling; then he would tap in "three fours" (.... ....) showing that the company had returned to quarters, following which he would tap in thirty-four (... ....) the official number of his company. The chief operator, after sending back his O.K. signal makes note, in a big journal which records all the doings in the department, of the fact that the company is in quarters and sets down the time it returned.

There are other special calls that designate apparatus. Twelve taps is a special call for a Fire Patrol Company. Thirteen taps indicate that a company's equipment has broken down on the way to a fire. Fourteen taps is a special call for a search light wagon and sixteen taps

indicate a demand for chemical engines, or for fire boat tenders in Manhattan, where no chemical engines are kept in service. "Three deuces" are the still taps for an engine going out of service because of repairs. Frequently the call is sent out from headquarters as a signal that the paymaster is ready to distribute the pay checks to the members of the uniformed force.

"Three fives" are emergency taps that call for the "Sapper and Mine" companies. Of course these men, trained to handle high explosives and cut pathways through the city as barriers against big fires, are rarely used. Indeed "three fives" have never been sounded except in practice. "Three sixes" and "three nines" are other emergency calls, that have never been used. The first mean that there has been a breakdown in the city's high pressure system and the "nines" announce that the high pressure service has been restored. Should "three sixes" ever be tapped in from a high pressure station during the time a fire was in progress, the dispatcher in charge of the alarm



**High Pressure under Test in New York**

The concentration of water shown here would prove too much for any fire.

Photo by H. D. Blauvelt, courtesy of Leslie's Weekly





system would send out the "three sixes" to the fire houses and a preliminary "five" followed by the box number that had been tapped in for the fire. This would tell all the engine companies that responded to the box to send steam engines to the fire immediately so that they can take up the work of supplying water to hose lines from the low pressure mains.

Two rounds of "three twos" are the special calls for the Rescue Company, and when this crew returns from a fire one set of "six" taps is sent to every station in the department over the "joker" circuit to announce that the company is ready for service again. Eleven taps is the test call of the department and this is sent out seven or eight times every day. In stormy weather these tests are made as many as eleven and twelve times a day to see that there are no short circuits, grounds, or other trouble on the various lines.

There is an interesting relic of the old days of the department still in vogue in connection with the test taps. When the apparatus were all drawn by fine big horses and every station

## 186 THE BOYS' BOOK OF FIREMEN

had from two to half a dozen chargers to be fed, stabled and otherwise taken care of, there was always a "bedding down" time for the entire department. At seven-fifty-nine o'clock every evening, just one minute before eight o'clock, the test taps of eleven strokes were sent out over the wires. This was known as the "bedding down" call for the horses. And to-day, in spite of the fact that nine-tenths of the equipment of the New York Fire Department is motor driven, the "bedding down" call is sent out over the wires every night at one minute to eight o'clock.

"Nines" is a call in the department that is very rarely used; but, when it is found necessary, it means that there is more than an ordinary fire somewhere in the big city and that, unless more assistance is given the fire fighters on the firing line, serious difficulties may result. "Nines" is known as the simultaneous call and it is sent to headquarters by the commanding officers at a fire, after the fifth alarm has been sent in, and the force reporting has been found too small to cope with the situation. The taps

are sent in preceding a call for a stated number of engines which the chief asks for by means of the Morse key. For instance, after the fifth alarm force has reported, and the chief feels that he wants ten more engine companies to win the battle with the fire monster, he goes to the alarm box and after tapping in "two nines" on the Morse key he proceeds to tap in the numbers of the engine companies he wants. These taps are transferred to the stations by the chief operator and in no time the extra force is beginning to arrive at the scene of the conflagration. Only once in the last five years have the "nines" been tapped in in New York and that was at the big Equitable Building fire. There are, also, special calls that will bring engines from one borough to another in New York City; but these, too, are only used in exceptional cases.

The famous "still alarm" is a special call for a single engine company to respond to a fire, or what might appear to be a fire in the neighborhood of an engine house. Sometimes the chief operator at headquarters is told by

telephone of smoke coming from the window of some building, or of a small fire in some unimportant corner of the city, not big enough to require a general alarm and the services of an entire first alarm response. The operator uses his own judgment in this case and sends one company to the scene of the fire. Sometimes the same sort of information is brought to an engine house, and the chief officer of the company takes it upon himself to send one or two of his men or his entire company out, after first tapping in a "still alarm" signal to headquarters by means of the station's Morse key.

It is quite evident that to operate this tremendous alarm service and keep it in working order, is a task of no mean importance. In truth it is one of the most exacting and nerve wrecking occupations in the entire Fire Department Service and the men who qualify to act as dispatchers must need be of the highest caliber. Three men are detailed on a tour, and a tour extends over a period of eight hours. The first tour, or "states prison trick" as the men call it, begins at midnight and continues

until eight o'clock in the morning, when they are relieved by another trio who work from then until four o'clock in the afternoon. The evening force follows and stands watch from four until midnight.

On watch these men must be keen and alert. With eyes and ears attuned they must watch the box board and listen to the instruments constantly. For eight hours all their attention is focused on this one thing and all their energies are bent toward transmitting every alarm or special call with accuracy and quickness. They guard the city. On their alertness, their keen judgment and precision depends entirely the efficiency of the department. Indeed it is hard to realize just how much responsibility falls upon these men until the time comes for instant action. The famous Asche Building fire was an excellent example of what their alertness means to life and property. This was a four alarm blaze in which one hundred and forty-three people were killed and twenty injured. Scores upon scores of people were trapped on the various floors of this building,

struggling for a way out and it was not until the firemen arrived that most of them were rescued. Here the delay of a minute meant the destruction of hundreds of lives. Here a slip in the dispatching of an alarm would have meant a death list three times as long. Most of those who were killed perished during the few minutes between the discovery of the fire and the arrival of the engines, and every moment that this period was extended meant a bigger toll of lives by the fire monster.

Not only are these men responsible for the transmission of alarms and the dispatching of apparatus, but they must see to it that the system is always in working order. They must be certain that every alarm box is in perfect condition and that every instrument and every key is attuned and ready for use, twenty-four hours a day every day in the year. Of course the chief operator (or Chief Alarm Dispatcher as he is soon to be officially called) has a gang of line men and cable men under his command, as well as trouble hunters, battery men and a host of other mechanics. But he must engi-

neer their work, watch out for trouble, and in every way have the responsibility and care of the entire ninety-two circuits upon his shoulders.

It is no wonder then that some of the operators who have worked at Fire Alarm Headquarters become nervous wrecks after having served their time. Some of them have been stricken with paralysis as a result of the constant mental strain they are under, and few of them ever live very long after they have been retired on a pension which the department grants them after a far too long and too arduous a period of thirty years' service.



## CHAPTER VIII

### THE FORCE THAT CRUSHES THE FIRE DEMON

WOODEN shingles, as commonplace as they are, are the biggest menace with which the fire-fighters have to contend. Wooden shingles have become recognized as a detriment to every American community, and a country-wide movement is under way to condemn them. Fire prevention organizations are protesting vigorously to their use in buildings and everything possible is being done to eliminate them from modern construction.

Not long ago the entire country was startled by the news that Paris, Texas, was being burned to the ground by flames that were sweeping the entire city. Hardly had the wires stopped vibrating with this message when word came that Augusta, Georgia, was being swept by a fire that was destroying millions of dollars worth of property, and threat-

ening to lay three-quarters of the city in ruins. And a few hours later, on the very same evening, came still a third message, telling of the horrors of a fire in Nashville, Tennessee, which was burning a path, blocks wide, through the city. Three huge fires were in progress during the same night and millions of dollars in property and numerous lives were sacrificed. And all this was laid to the door of wooden shingles.

Take the fire in Paris, Texas, for an instance. The flames started with a wild blaze in the very center of the business district of the city. The buildings in which the fire first made its appearance were far from fireproof, of course, and their contents fed the flames amazingly. Indeed, before the first of the companies that patrolled the community reached the scene of the disaster it was evident that the buildings were doomed and the firemen gave them up as lost immediately and proceeded to stretch in their hose lines so that surrounding property could be protected. They tried their mightiest to confine the fire to the buildings that had

already been gutted and it looked for a time as if they might succeed. An hour or more they battled stubbornly and checked the course of the fire in spite of the wind that was sweeping over the city. Heavy streams of water were thundered against the sides of surrounding buildings, while others were directed so as to hold the flames to the already half destroyed area.

But in the height of the battle, just when it looked as if victory would surely result for the "blue shirts," there came the astounding news that blocks away, down the wind, another hot fire had started. Sparks and flambeaus of burning wood had been hurled skyward from the first fire and blown into a residential district by the high winds. They had dropped on a wooden shingled roof and before they had been discovered a second blaze was well under way. A detachment of the very much surprised fire fighting force was hurried to the scene of the new blaze, where they took up the fight with vigor. But hardly had their lines been "stretched in" when an alarm was sounded

from a point a few blocks further down the wind, where more sparks had kindled another shingled house. This was followed closely by another alarm a block beyond, and then two more in quick succession from the same locality. Five fires were under way all at once!

The situation was unprecedented in the annals of the Paris Fire Department. Another company and still another was dispatched from the scenes of the first fire to cope with the new ones, and then, with their fighting force diminished, the remaining companies tried to cope with the original fire. But at this point the battle had become one-sided with the odds greatly in favor of the fire demon. With increased intensity the first fire blazed hotter and the long tongues of flame reaching out seized house after house and building after building, devouring them like so much tinder. Streets were bridged by the flames and a new block was started. The firemen were becoming disheartened now, especially when news came from the other fires that more men were needed to hold the new conflagration in check.

The entire city was in a panic by this time. Five terrible conflagrations were in progress and with the high wind all these threatened to merge into one great fire, blotting out square after square of buildings and demolishing the entire community. Men, women and children could be seen fleeing from their homes with great bundles of clothing and food on their shoulders. Others were standing their grounds and with garden hoses, pails and fire extinguishers trying valiantly to protect their homes. But all their efforts were to no avail, the long arms of flames leaped across the widest streets and found new lodging places.

The five fires did merge in spite of the best efforts of the firemen and the hundreds of citizens who had come to the aid of the "blue shirts." The entire center of the city was in flames. Hundreds of buildings had been destroyed by this time and the wind was driving the solid wall of fire still further into the community. Block after block down the wind showed new fires! The place was an inferno! Everywhere were flames! On every hand was

terrible destruction! News came that women and children had been trapped in one house, that several firemen were caught in another place, and that terror and panic reigned everywhere! The police were in the thickest of it, as were the local militia troops. Fire companies had been called from every city and town within miles and over the country roads, made as bright as day by the lurid glow in the night sky, came all kinds of apparatus from the very modern automobile and chemical engines to steam engines, and even old fashioned hand engines. They were all coming to the aid of the Paris firemen.

And Paris needed them. The situation was terrible. The wise old chief of the Paris fire fighters was almost beside himself for a while. But with reinforcements at hand and hundreds of willing citizens to help him, he drew his scattered forces together and planned a new campaign. He massed all apparatus and men at his command in front of the advancing flames, like a general distributing his infantry force. And here with hundreds of hose lines, with

dynamite, chemicals and every available fire fighting appliance he conducted his counter attack.

All through the night and well into the next day the struggle continued. But before the sun made its appearance the fire demon had been checked. His advance had been stopped and it only remained to hold him at bay for the hours that it would take to have the conflagration die a natural death for want of new fuel to feed upon.

It was, however, a terrible scene that the sun revealed. A great charred path from one end of the city to the other and many blocks wide, had been cut by the flames. Business buildings, factories, residences, shops, stores, churches, bridges, railroad stations, and everything had been reduced to a mass of smouldering timber, twisted iron and steel, and smoking heaps of brick and mortar. Millions of dollars, and worst of all, human lives had been sacrificed in that great night fire. And the blame was all laid to the many wood shingled roofs that prevailed in Paris.

## FORCE CRUSHES FIRE DEMON 199

Considering that similar spectacles were witnessed the same night in Nashville and in Augusta, the menace of the wooden shingles must indeed be all that the National Board of Fire Underwriters and the many fire protection organizations paint it. And these three big conflagrations are not all that are recorded as resulting from the same cause. The great Chelsea, Massachusetts, fire, the fire at Hot Springs, Arkansas, and at Jacksonville, Florida, are all said to have resulted from the same identical cause.

Jacksonville, however, does not mean to have another such disastrous fire. Of course Jacksonville has not been able to get rid of all its wooden-roofed buildings, but it has provided an antidote for big blazes of all kinds by establishing a high pressure water system throughout the more dangerous districts of the community. As a result of this the firemen are now always sure of a supply of water delivered under a pressure far more intense than that furnished by the pumps of the largest fire engines. Moreover, several times as many



hose lines can be stretched into a given section from high pressure hydrants than can be used where engines are operated. A burning area can be completely surrounded by walls of water delivered with so much force that it is utterly impossible for fire to advance through it.

Jacksonville is not the only community that has realized the value of high pressure water for fire protection. In fact more than a score of American and Canadian cities have established this system of fire fighting to help the smoke eaters of the community and make their work at big conflagrations easier. Among the cities that have adopted high pressure fire service are Atlantic City, Baltimore, Boston, Brooklyn, Buffalo, Chicago, Cleveland, Detroit, Fitchburg, Fort Worth, Hartford, Jacksonville, Lawrence, Newark, New York, Oakland, Philadelphia, Providence, Rochester, San Francisco, Toledo, Toronto, Worcester and Winnipeg.

And wooden shingles or no wooden shingles it is very doubtful whether a conflagration of the magnitude of the Salem, Chelsea, or Paris

fires could sweep any of the above named communities now. As a matter of fact, the establishment of this system of fire fighting, expensive though it is, has saved many, many millions of dollars more than it costs to maintain it, in each of these cities.

As a proof of the infallibility of the high pressure system in fighting big fires and putting a check to big blazes, it is interesting to know that at one time three tremendous fires broke out in the high pressure districts of New York. This was the famous "three cornered night" and each of these fires necessitated the sounding of four alarms. Some six hundred firemen were called from different districts of the city to cope with the blaze. Hundreds of lines of hose were stretched in but the high pressure system fed them all and made it possible for the firemen to confine each blaze to the buildings in which it started. As a matter of precaution, forty engines were called out to be used in case of a failure of the high pressure system, but not one of the engines was used.

It is more than likely that if these same fires

## 202 THE BOYS' BOOK OF FIREMEN

had occurred in a city unguarded by high pressure mains the situation would have resulted very seriously. As it was every fireman from the Battery to Thirty-seventh Street was needed to wage battle against the fires and they only succeeded in getting control of each one by cutting off the buildings from the surrounding property by veritable curtains of water poured at high pressure from scores of hose lines. They worked from every possible side of the blaze and drove each one back upon itself by sheer weight of the water thrown.

New York's high pressure system is the largest, strongest and most effective of any so far established, with the systems of Chicago, Philadelphia and Baltimore tied for second honors. The systems in each of these cities are exceptionally well constructed and have so far proved very effective. But the system maintained by Father Knickerbocker is superior because of the huge territory it covers and the great amount of water that can be served to the fire fighters within a moment's notice.

The district protected by the system is

naturally the district in which the most dangerous fires occur and where the buildings are of a character that would make a big fire possible. The high pressure mains girdle that portion of Manhattan lying between City Hall and Thirty-fourth street on one side of the city, and Twenty-fifth street and the Battery on the other, and from the East River to the North River, a section comprising miles upon miles of streets lined with warehouses, business and office buildings, big stores, factories and almost every other variety of structure.

Two great pumping stations have been established, one on the east and the other on the west side of this district. These are long low brick buildings set up in the center of a square and each contains six huge centrifugal pumps all operated by big electric motors. And it is upon these six powerful looking black steel giants that the city depends for its fire protection. Each one of these great pumps can drive 3,000 gallons of water a minute coursing through the high pressure mains to the hydrants where it is needed. This great quantity

## 204 THE BOYS' BOOK OF FIREMEN

of water is shot out of the hydrant at 300 pounds pressure to the square inch when necessary, giving every hose the firemen use force enough to batter down doors or window shutters, and beat back the heaviest wall of flames.

From each of these stations long cast iron mains ranging from twelve to twenty-four inches in diameter reach out under ground through the city's streets. Here and there through every thoroughfare they have been laid, their presence known only by the hydrants that appear above ground. More than fifty-five miles of this heavy piping has been used to complete the elaborate system, and several thousand hydrants are connected to the ramifications of the mains.

The water is supplied from the regular city reservoir in Central Park, but as a matter of precaution the pumping stations have special mains leading from a suction chamber in front of the station, under ground, to the river, from which salt water can be pumped in an emergency. Salt water is not used for putting out fires except where fresh water is not obtain-



**Hard at Work at a Hot Blaze**  
**The destructive Car Barn fire at Madison Avenue and  
Eighty-sixth Street, New York City**



able, because the river water does a great deal of unnecessary damage to the contents of buildings, as it washes from floor to floor.

Of course there is always water in this big pipe system, but it is not maintained there under pressure. It lies perfectly dormant and the pumps in the pumping station remain closed down until a fire starts somewhere in the high pressure district, then—well, here's how it all happens.

A policeman patrolling his beat late at night sees a dull red glow in the windows of a paper storehouse in Canal Street. He sees traces of smoke curling out through cracks in the window casing and under the doors, and in an instant he realizes that a fire has started in a very bad place. He knows that the building contains big cases and bundles of paper and in a twinkle he turns and sprints for the nearest fire alarm box, which happens to be half a block away, on the corner of Canal and Lafayette streets. Hastily he opens up the box and pulls down the hook inside. Then when the bell begins to strike he hurries back



to the scene of the fire to be ready to direct the first engine company to the blaze, or to be on the ground if he is needed.

In the meantime the alarm has sounded throughout the city's fire alarm system. It rings in at every fire and police station in the entire borough, and it rings in at the two pumping stations of the high pressure system, also. In three engine company houses, two hook-and-ladder company houses, a Fire Patrol House, Battalion Chief's quarters, and the Rescue Company's station, the men are preparing to "roll." And at the same time in the pumping stations the men on the night shift, engineers, oilers, attendants and the like, are getting busy, also.

The engineer hurries to the switchboard and throws in a switch. Immediately one or more of the big motors starts, sending forth a humming noise that increases to a very loud purr as it gets into action. Meanwhile the water gates have been opened and the big pumps started. These whirr loudly for a moment, but as they pick up speed the noise they

make is more like a gattling gun in action. With the starting of the pumps the water begins to rush through the great underground pipe system with ever increasing force. All this takes but a few moments. Almost before the engine companies have left their stations the pumps are working and by the time the firemen reach the scene of the fire the pressure in the system is well above one hundred pounds to the square inch.

The water must be at the necessary pressure in a short time, for the moment the engine companies swing into Canal Street they realize that they have a big blaze to fight. Before the high pressure wagon (the big steam engines do not respond to a general alarm in a high pressure district, as you already know) comes to a full stop, the "blue shirts" are hauling lengths of hose to the ground and rushing for the nearest hydrant. The hose is coupled to the hydrant even while it is being "stretched in," and the moment the crew is ready to handle it at the nozzle, and the line is clear, the hydrant gates are opened and a great stream of water, driven

by the pumps back there in the pumping station, rushes into the rubber tube, charging the line, and making everything ready for the attack.

The water is delivered first at a little better than one hundred pounds pressure, but if greater pressure is needed, to throw the stream higher or to give it more force so that it can batter back a heavier wall of fire, the officer in charge of the fire, needs only to send a man to the nearest telephone.

"Tell 'em to give her twenty-five more. This is a hot fire and we need it," shouts the chief to one of his aids.

And the aid hurries to the telephone.

"Hello, South Street Pumping Station? This is Murphy. The chief says boost her twenty-five," are his crisp directions.

"Right-o," comes the answer, and by the time the aid reaches his chief's side the pumps in the station are roaring louder and the water is coursing through the pipe system with twenty-five pounds additional "kick" behind it. The chief, in this way can "jump" his water pressure at a fire, twenty-five or fifty pounds

until it reaches a maximum pressure of 300 pounds, which is extremely high and not often needed.

High pressure water is used to operate hose lines coupled directly to the hydrant, those stretched in to a water tower, or lines which run to the high pressure wagons to operate a deck pipe. Each high pressure wagon is equipped with one or two gun-like nozzles which are mounted very much like the deck pipes on a fire boat, and these are almost always brought into action at big fires, serving the same purpose as a street line, but requiring only one man for operation.

There are any number of good reasons why the high pressure fire service is preferred to steam engine service, the most important of which is that the big electrically driven pumps in the station even though they may be miles from the fire, can furnish more water, at a higher pressure, than a score or more of the old-fashioned steam engines. Without the cumbersome engine the fireman can respond to an alarm quicker, too, and they can get water

## 210 THE BOYS' BOOK OF FIREMEN

onto the fire in much less time than was required in the old days when the engine had to be connected to the hydrant, the hose lines connected to the engine, and the engine started before water could be used.

Of course if the high pressure system should fail at any time the engines would have to be resorted to, but the city engineers have done everything possible to make the service infallible. The big mains that reach out through the city are almost indestructible, and the giant pumps are watched ever so closely both day and night. The electric service that drives the motors, which operate the pumps, is also unfailing. Indeed the company that furnishes the current sees to this part of it with care, for every minute that the stations are without electric service the electric company must forfeit \$1,000. And to make certain that they will not have to pay that big amount of money for even a single minute the company's engineers have arranged so that electric service can be sent to the station from a number of different points in the city.

## FORCE CRUSHES FIRE DEMON 211

The fire fighters of to-day have the assistance of a number of other very ingenious appliances to help them to keep fires under control. Perhaps the best known and most important of these, aside from the high pressure system, is the automatic sprinkler systems that are maintained in large factories, warehouses, stores and similar structures where the fire risk is great. There are several different types of sprinklers but they are all practically the same in their essential features.

In buildings equipped with this form of fire protection, elaborate systems of pipe lines are constructed throughout each floor. These pipes are suspended from the ceiling a few inches, and here and there along each extension is an outlet, containing a sprinkler nozzle which is closed by a very soft piece of metal. This metal melts under the slightest heat, and clears the sprinkler nozzle. The water is maintained in the pipe lines under pressure and as soon as the sprinkler is clear it gushes forth, spraying the ceiling and the floor in the immediate vicin-

ity and killing, or holding in check, any fire that might be blazing near by.

These sprinkler systems have saved millions of dollars' worth of property that might have been damaged by fire, and they have confined many a conflagration to a single corner of a room and prevented its development into a large fire. They are not infallible, however, and many fires have been known to get beyond their control and sweep the building that they guarded. The sprinkler's chief function, however, is to hold a blaze in check until an alarm is sent in and the city's fire department responds.

Another aid to the fire fighters, along this particular line, is the stand pipe system that the municipal laws of most communities insist upon, in buildings more than eighty-five feet high. The stand pipes (as explained in a previous chapter) are the building's individual fire fighting system. They reach from basement to roof of a building, with siamese coupling in the street near the sidewalk. On every floor hose lines are attached to open valves and

when the fire companies arrive, all they need do is connect their hose lines to the street connection of the pipe, and while the water is being forced upward to the floor on which the fire is burning the firemen enter the building and go aloft where their hose line, fully charged, is waiting for them. The stand pipe serves the same purpose as a water tower, only it is built in the building itself and is always equipped with hose ready to be "stretched in."

Along with this stand pipe every building is supposed to be equipped with a certain number of fire extinguishers, fire axes, pike poles, buckets and the like, and in some structures special forms of fire alarm systems have, also, been established, some of which work automatically in much the same way as the sprinkler systems.



## CHAPTER IX

### SMOKE-EATERS IN THE MAKING

**THE** life gun is the last resort of the fire fighters in rescue work. When every other effort has failed, and the situation is absolutely hopeless then this little weapon is brought into action. And there is many a man, fireman and citizen alike, who has been more than grateful to accept this last chance of being saved from a burning building. Members of the crew of the steamship *Bolton Castle* will attest to that and so will the men saved at the Equitable Building and Parker Building fires and a score or more others whose life has depended upon the accuracy of the gunner and upon that thin white strand of cord that has been shot aloft to them when they have been marooned on the roof a burning building with Death only a few moments off.

The four men who came very near to perish-

ing in the rigging of the steamship *Bolton Castle* when she was afire from stem to stern in her berth on the South Brooklyn waterfront, were grateful indeed, and they may well have been, for the fire had already licked at them with scorching tongues. They had felt its hot breath upon their naked backs and they had all but given up the fight when the doughty little life gun spoke, and a way was opened for their escape.

The *Bolton Castle* was one of the two big steamers which were supposed to have been carrying shipments of war munitions to Europe. How they caught fire is still a mystery, and probably will always remain so. Stories of spies, bomb plots and the like followed the big fire; but whether these tales are true or not has nothing whatever to do with this story. It is quite enough to know that soon after midnight the South Brooklyn water front was alight for miles north and south, while from the pier where the *Bolton Castle* and her sister ship were moored shot aloft great columns of flames and smoke that illuminated the sky and

told the crews of the fire boats up and down the bay that they were "rolling" to a real "worker," as they call each fire at which they "stretch in" lines and do some actual fire fighting work.

The fire broke out in so many places at once and gathered volume so quickly that before the boats reached the scene, the docks on either side and both vessels were completely enveloped in flames. Some members of the crews of the steamships had brought lines of hose into action, but before they could get water they were driven out of position and forced to flee ashore for safety. Some of them were cut off and had to plunge into the icy water, while others were trapped below decks and had a terrible battle before they finally reached safety.

Shore companies as well as fire boats responded to the alarms that were sent out and presently line after line of hose was stretched in and tons of water were pounding away at the fire. It was thought by the time the firemen arrived that every one had left the vessel and the piers. If they had not it was useless

for any of the fire fighters to attempt to find them. It did not appear as if any one could live in those flames.

But it was not long before the firemen found out that the men were not all ashore. In the very height of the battle some one discovered a man staggering about on deck in the face of great sheets of flames that were licking up everything in sight. Then another one appeared and a moment later three more. They were coal passers who had been trapped down in the hold of the ship, and somehow had fought their way up on deck.

What their thoughts must have been when they saw how hopelessly they were cut off from being rescued is difficult for the average person to appreciate. But certain it was that they determined not to give up their fight for life after their struggle from the depths of the burning vessel. Only one place remained on the whole steamer where the flames were not raging and that was aloft, on the cross-arm of the steel mast, from which the ship's wireless was strung. One of the doomed men thought

## 218 THE BOYS' BOOK OF FIREMEN

of this first and, with a shout to his companions, he began to climb a steel stay that held the mast. The others caught his suggestion and followed his example. Like four giant monkeys they climbed aloft, amid the thick yellow smoke and the roaring flames.

The firemen on shore and those on the fire boats saw them and they did their best to help the plucky coal passers by directing their hose streams so as to beat back the smoke and flames and give them a chance for their lives. Every one knew that it was impossible to send a rescuing crew aboard the vessel. No one could get within fifty feet of the fire, much less break through the barrier of flames and rescue the men.

There was just one chance of saving those men; the last resort—the life gun. Every company carries one and every company has a man proficient in its use and in a moment one was brought forward. It is a short rifle with even its stock made of steel and it shoots a heavily charged cartridge. Over the muzzle of the gun is fitted an iron slug, and to this is

attached the end of a piece of heavy cord hundreds of yards long which is kept coiled up in a tin cask. When the gun is discharged the slug travels to its mark carrying the string with it, thus conveying a line to the man to be rescued. After a successful shot the firemen attach a rope to the end of the string and the marooned man hauls it toward him. When he secures the rope he promptly makes it fast to a chimney or whatever else is handy and slides to the ground, or gets down as best he can.

To get a line to the men in the rigging was not difficult with that little weapon. The marksman of the company took the rifle and going as near to the fire as he could, took careful aim and pulled the trigger.

Bang went the gun, and like a comet with an interminable tale the slug shot out toward the steamer. On it went out over the flames and high above the mast head dropping its trailing string safely over the steel cross-arm.

What a shout of welcome and appreciation went up from the four men in the rigging when they realized what had been done. Eagerly

they grasped the string and hauled the heavy manila rope toward them. Soon they had this too, and presently it was bent securely around the steel mast. Then with a half dozen hose lines washing back the flames first one and then another swung out upon this flimsy path to safety and worked his way ashore. It mattered little that the rough rope burned and blistered their hands or that they reached the waiting firemen all but exhausted; they were saved from a hideous death, by the little life gun.

Training in the use of this highly important, but fortunately little used implement, is one of the features of the work done at the Fire School in Sixty-eighth Street, New York, an institution established by the New York Fire Department and in which new men are trained and old men are kept in constant practice. The Fire School is in session daily, except in extremely cold or extremely hot weather. No, it is not an indoor school with class rooms and instructors, nor are the classes maintained in a gymnasium. The work is all done in a big brick paved enclosure in rear of the six-story

building that houses the New York Fire Headquarters. There is carried out every phase of fire fighting and rescue work that the "blue shirts" are likely to come in contact with while guarding the city from fires, even, as mentioned before, to the uses of the life gun, the life net, and the awkward, but very useful scaling ladders.

Life gun drill at the school is highly interesting and very spectacular from the standpoint of the spectator at least.

It is, however, somewhat dangerous for the men who take part in it, but that feature enters into all the work of the fire fighters so they give very little thought to the matter of sliding from the roof of a six story building to the ground when called upon to be the "victim" in the drill.

The rear of the tall Fire Headquarters building, which forms one end of the school enclosure is the building from which the fireman is always rescued. This same building serves for many another drill, too. Now and then it is considered entirely enveloped in flames and



hose lines are stretched into it from various points and on various floors, and more than often men with scaling ladders are to be seen climbing up or down or swinging from window to window exactly like so many huge flies. For this reason as a matter of caution, a big rope netting has been put up at the level of the first floor, so that if a luckless recruit should happen to lose his balance and come tumbling down the worst he can sustain is a good shaking up.

In the life gun drill two men are usually marooned on the roof of this building. One is the "victim" and the other is there to see that everything works out all right. The firemen all gather in the court below, busying themselves with hose couplings and various other details exactly as if they were at a fire. Then suddenly the two men appear at the edge of the roof waving their arms and calling for assistance. In a moment the men in the yard are in action. The box containing the life gun, its ammunition and the tin cask of cord are brought out and the gunner of the crew takes

the fire arm and loads it. Another man places the cask with cord in the proper position while still another makes certain of the iron slug that fits over the muzzle of the gun.

Several others, meanwhile, drag forth a huge coil of rope and place it into position ready for use. The gunner then calmly measures the height of the roof with his eye, and brings the rifle to his shoulder. Then getting the proper elevation, he fires. Away soars the slug trailing the long line behind it. Up it goes high above the roof dragging the cord into the hands of one of the firemen on the building. Immediately he begins hauling, for as soon as the proper length of cord is uncoiled the firemen below knot fast the end of the manila rope. Hand over hand the "victim" hauls away pulling the heavy cable upward. Presently he grasps it and drawing a few extra yards on to the roof, he hurries to the chimney and knots it into place, being absolutely certain before he leaves that the knot is tied properly and that it is quite firm.

Then without a moment's hesitation he steps

to the edge of the roof and swings himself over, to be dangling a moment later six stories above ground, with nothing but the rope net to save him from being killed should he suddenly let go. But he never hesitates. Swiftly he begins making his way to the ground, using a great deal of caution for he does not want his hands blistered, nor does he want to descend so quickly that he cannot check himself without jerking the rope out of his grasp.

And while all this is going on, down there in the courtway, apart from the rest of the firemen, stands an officer with a stop watch in one hand and a big book in the other. He is timing the performance, and, when the man finally reaches the ground safely, he opens the book and marks therein a certain percentage for efficiency.

Morning and afternoon, every day that is fit for drilling, a complete company is to be found at the school going through the various evolutions. Twice a year each company in the department spends a day drilling for the efficiency test, and each company is rated by Chief

Larkins, who is in charge of the school. At the end of the year the company that has the best efficiency record is honored by the department, and each member is given a medal.

Besides the life gun drill, life net drill, and the work with the scaling ladders, these men have twenty-odd evolutions to carry out in the efficiency tests, upon each of which an accurate time record is kept. And some of these evolutions are not very easy as you will be able to judge.

One of the trying tests is to stretch in a hose line to the roof of the building. As soon as it is raised and is in operation a section of hose is supposed to burst. This section is between the fourth floor and the roof and the men must remove the damaged section and couple in a new section without taking the line out of position. As soon as they accomplish this difficult task, which seems to be more of an aerial acrobatic stunt than anything else, a second section of hose bursts in the same line. This section is between the fourth floor and the street and some more aerial gymnastics, and really hard

work are indulged in by the "blue shirts."

Following these tests, the men must do a variety of connection tests, such as stretching in a line from a high pressure hydrant to a building stand-pipe for a fire on the sixth floor, making the connection on the projecting pipe which stands above the sidewalk. But presently it is found that this portion of the pipe is out of order and a new connection must be made, whereat the firemen remove the line of hose and carry it into the building to connect it with some one of the floor outlets to which the building hose is usually attached.

Then the men must reduce three and one-half inch streams to as many two and one-half inch streams as is possible, using the proper couplings, nozzles and the like. Following this the operation must be reversed and three two and one-half inch streams must be merged into one stream to feed a three and one-half inch hose line. They must stretch in lines from an imaginary fire boat and make proper connections; they must stretch in lines by means of ladders to the third floor and fasten



Hardships a Fireman must Face  
A fire in Minnesota with the temperature  $54^{\circ}$  below zero.



them there with ladder straps ready for operation; they must place various kinds of ladders into position in the quickest possible time and they must raise an aerial ladder, or extension ladder, and put it into position. Also, they must recharge chemical engines, operate a water tower, fight imaginary cellar and sub-cellar fires always selecting the proper equipment, and accomplish many more equally difficult feats.

Recruits for the Fire Department are made to go through the same evolution for a period of thirty days. Every day they practice for hours, with an instructor watching them closely and keeping an accurate rating of their work, and at the end of the thirty days those who have exhibited marked proficiency are permitted to continue on their way toward becoming an active fire fighter.

Qualifying as a fireman is not the easiest sort of a task either. The young men who are eager to join the department must first pass a physical examination in which their eyes, ears, lungs, heart and various other portions of



their anatomy are tested thoroughly. Passing this they must undertake a strict Civil Service examination, for every fire fighter must have a well developed and quick acting brain. This mental examination is usually made very difficult and none but a man who has acquired a good public school education can pass it.

Those who survive the examination are placed on an eligibility list, in position according to the percentage they attain on their examination papers, so you see they not only have to pass the examination, but they must complete it with as high a percentage as possible in order to be well up on the list. It is from this list that the Fire Commissioner selects all recruits, taking each man from his position at the top of the list. Sometimes the recruiting classes at the school are very large, containing thirty or more men who have been selected from the eligibility list. The thirty days' schooling gives these men a fair idea of how hard the work of a fire fighter is but they do not get their real initiation until they finally

finish their school course and are placed on probation as a member of the regular force. They then "roll" with the rest of the company, do their bit at fires and take their punishment with the best of them. And, if they have the heart and the courage to survive all this, then they are given a permanent assignment and placed on the city's payroll as a fireman of the fourth grade.

From then on the progress that they make in the department depends entirely upon the amount of work and study they are willing to do. No; their studying is not ended when they quit the training school. Indeed studying is never ended for the fireman who is really eager to move up in the fire department and eventually become an officer. Each promotion is attained by examination, and only the firemen who study industriously all the time can expect to pass these examinations with a good rating. New lists are made for every office and the men are selected from these lists exactly the same way as they are selected from the first exam-

ination list. So it behooves every man to pass with the highest rating he can attain to be sure of promotion.

There are four grades of firemen and special grades of engineers and it is not until a man has reached the highest grade as a fire fighter, or has become an engineer, that he is eligible to try for the office of lieutenant. Only lieutenants are allowed to take the examinations for captain, and only captains are eligible for the office of battalion chief. Besides battalion chiefs there is still a higher grade which is known as deputy chief. These men rank next to the chief of the entire department and they are the only ones eligible to take the examinations for that office when it is vacant. So you see there is no end of studying in the life of a smoke-eater. Every step upward that he takes in the department can only be attained through examinations, and to pass these examinations he must "plug" and "bone" just as hard as any chap in grammar school, or high school. In truth he must study even harder than the average boy, who quite frequently gets holidays

in which no studying need be done. With the fireman even his days off must be devoted to a certain amount of school work if he really intends to make progress.

And, of course, it is every fireman's desire to advance in the department. There are two very good reasons for this. The first naturally is pride. A fireman has just as much pride in his record in the department as the average fellow has in his standing in school. In fact the firemen have even more pride than some school boys. The second reason why a fireman tries to advance himself is because of the pension regulation which prevails in most fire departments.

After a fire fighter sees twenty years' service the city which he has served for that length of time concludes that he has earned the privilege of retiring. For twenty years he has battled all kinds of fires, he has been out in all sorts of weather, he has faced death a hundred times, he has probably suffered cuts, burns and bruises without number, and he has jeopardized his safety and comfort on scores of occa-

sions while carrying out his duty in protecting the community from fire. All these things considered there can be little doubt but that he really has earned rest and comfort, and the city provides that he shall be retired and paid not less than half of the salary he is receiving at the time he seeks retirement. If, during the twenty years, the fireman in question has never advanced himself above the grade of a member of the rank and file, the retirement pay he receives is not large. But if he is able to advance himself to lieutenant, captain, or battalion chief, he is retired with a rather substantial income which continues for the rest of his life.

Fire College is an institution conducted by the city for the officers of its fire fighting force. At the head of it is Department Chief Kenlon, and its student body is composed of the scores of grizzly old smoke-eaters who have been battling fires these years past. They range from lieutenants to the battalion chiefs who are in line for Chief Kenlon's office whenever he is ready to retire from the firing line, and all of

them attend the course of instruction with just one idea in mind: to learn more about how to subdue the fire monster.

The institution is conducted very much along the lines of a university in that the work is chiefly by lectures and examinations. There is an established course and the officers who complete the work are given a rating and a graduation certificate. The seriousness with which the officers regard their work at Fire College is evident when it is known that the graduating class last year contained 150 men, all experienced fire fighters and all of some rank in the department. Indeed Fire College has become such an important institution that officers from other cities apply for admission and take the course. Recently the chiefs of the fire departments of five different cities were students at the institution.

The work that these men undertake relates strictly to fire fighting, fire prevention and questions of importance about the department itself. But chiefly they study new methods of fire fighting. In this respect they work out

problems of the most difficult nature. Possible fires are conjured up and puzzling questions are propounded. Then it is the officers' duty to work out the method of attack, and to reason out how they would distribute their men, how they would make the first onslaught, and how they would protect their command, their apparatus, and the surrounding property, in case unexpected difficulties should arise in connection with the blaze.

These questions are so ingeniously thought out and the methods of attack so well planned that every man in school derives new ideas from them. Perhaps a dozen different officers may each have a different way of carrying the fight to the fire in which case the men present secure twelve different views on the same situation. Every new phase of fire fighting that comes up during actual operation in the department is brought to the Fire College, and the officer who worked out the method of attack at the scene of the fire fights the blaze over again at school and tells how and why he conducts his line of attack. In this way every

officer is given the benefit of the bits of experience picked up by the men in action, all of which tends to increase their knowledge of their profession.

Besides the drill school for the men in the ranks, and Fire College for the officers, there is still a third institution conducted by the city for the training of its fire fighters. This is the school that is carried on in conjunction with the machine shops and construction shops maintained by the department. Schooling here is all of a technical nature and is of course highly beneficial to the "blue shirt," especially those of a mechanical bent, who are aspiring for the position of driver of some one of the powerful engines, trucks or high pressure wagons.

The shops maintained by the New York Fire Department are big and very well equipped. Indeed they are so well outfitted that more than one piece of apparatus has been entirely rebuilt there and a great deal of the work of transforming horse-drawn apparatus to motor-driven equipment has been carried out by these



## 236 THE BOYS' BOOK OF FIREMEN

firemen-mechanics. The school conducted in connection with these shops aims to train the firemen in the mysteries of all the mechanical parts of engines, hook-and-ladder trucks and the rest of the department equipment. Engineers are taught the intricacies of the big steamers and the gasolene pumping engines, while the firemen who aspire to become drivers are instructed in the mechanism of the various kinds of automobile engines, the tractors and other driving machinery that are used throughout the department. When the men have finished with this course they are not only able chauffeurs, but mechanics as well, who can undertake any kind of minor repair work in connection with department equipment and carry it through successfully. This school is technically known as the Motor Apparatus School and is very popular among the men. In one year as many as 217 firemen have been graduated from the course with honors.

In the matter of special instructions it is interesting to know that the lieutenants of the New York Fire Department have a little train-

ing class all of their own which does not relate to the course at Fire College, or to any other branch of the department's school work. These officers are grouped together in what are known as the Sappers and Miners Corps, and as members of these groups each lieutenant must know how to handle powerful explosives and how to wreck buildings the quickest way. Whether this knowledge will ever come in handy to them is a matter of doubt. Certain it is that they all hope never to be called upon to perform such duties, for in that case it would mean that New York was on the verge of being utterly wiped out by fire.

The most effective way to check big community fires, such as those you read of in the preceding chapter, is to dynamite a wide path through the city, far ahead of the conflagration. With the buildings all down the fire has nothing to feed upon when it reaches the open space and consequently it soon burns itself out. If a community fire ever does start in New York, and the firemen find that they cannot check its course with the high pressure service

## 238 THE BOYS' BOOK OF FIREMEN

and other ordinary means, why then, of course, the Sappers and Miners will be called out to dynamite and lay waste huge sections of the metropolis in order to save the rest of the city from destruction.

## CHAPTER X

### MEDAL OF HONOR MEN

OF all the sacrifices that the fire fighters make to their duty of protecting the community, probably the greatest of all, barring of course the sacrifice of life itself, is the giving up of practically all home ties. Only one day in every five do these brave fellows spend with wife and children, or father and mother, whichever the case may be. Twenty-four hours a day, every day except on their "swing," they must spend at the fire house paying strict attention to duty. They are allowed a certain length of time for their meals and, if a fireman is fortunate enough to be on duty at a station near his home, why then, of course, he can see his family at meal time. But a fireman is never sure of remaining with the same company any stated length of time. He may be a member of a company near his home for six

## 240 THE BOYS' BOOK OF FIREMEN

months, and then suddenly be shifted to a company at the other end of the city, where he may remain on duty twelve or fourteen years. The life of a fire fighter is hard indeed on men who love their home.

But time spent in the station is not a constant grind, or a constant wait for alarms. The smoke-eaters have plenty of work to do, and plenty of play, too, occasionally. Of course there is the duty of keeping the apparatus in perfect order, and bright and shining at all times, and there is a certain amount of watching to be done, including special inspections and special details; but even with these demands upon their time the blue-shirts find time for pleasures among themselves.

There must always be a "house watchman" on duty, and it is his work to sit at the desk on the apparatus floor, in full uniform, and transact detail business that comes to his attention. He must keep the house journal, which is a big book in which all the work of the company is recorded, and he must be always alert for an alarm, for it is his duty to register

it, locate the box from which it has been sent, keep an accurate account of the time received, the time the company "rolls" and the time it returned. He must, also, send out the "back taps," or "return taps," to Fire Alarm Headquarters. One man is on watch all the time except during the period between twelve o'clock at night and six in the morning, when two men are detailed to the task. These watchmen work in "tricks" and every fireman in the company gets the house watch detail as his turn comes around.

There are special details in the form of inspections of buildings in the territory covered by the company. Firemen visit the various residences, tenements, business buildings, etc., at stated intervals to see that the fire escapes are kept clear and that everything about the place is as it should be so that if a fire does start the firemen will not be hampered in their work, nor will the occupants of the fire-swept building be troubled in making their escape.

Another duty is the theater and public building detail. A fireman from the nearest fire

house is always supposed to be present at every theater during a performance, to see that exits and fire escapes are cleared for action and that no fire regulations are broken by the actors, audience or stage directors. At dances, concerts, or similar gatherings where there are a great many people, a fireman must always be present to see that nothing serious happens.

Between these duties and the time spent in responding to alarms the smoke-eater secures his recreation. But whatever is the nature of his diversion, it must always be carried on at the station. These limitations, however, do not prevent the men from having the very finest kind of a time when they want to. Indeed, sometimes they are like a group of great overgrown boys, care free, jolly and full of fun, playing practical jokes on each other. and indulging in all kinds of horse play.

One of the favorite pastimes of the "blue-shirts," who are fortunate enough to be stationed in a house where there is a rear court, is handball.

Hour after hour these big healthy fellows

will play this very interesting game. Tournaments are often organized to determine the championship of the company, and sometimes interested "Buffs" will offer medals or silver cups for prizes. Handball helps to keep the men in the finest physical condition, shaking loose every stiff muscle and making them as active and as alert as possible, and for that reason the game is encouraged by the department officials. Boxing and wrestling are favorite diversions with the smoke-eaters, and in the old days of the department, each recruit had to pass his "glove examination" by squaring off with nearly every man in the company. You can be very sure that a man, to pass his "glove examinations" with honors, must needs be a very clever boxer for some accomplished athletes were developed among the fire laddies.

In every fire station one floor, usually the top floor of the house, is devoted entirely to a recreation and reading-room for the men. Many of the houses are equipped with pianos, and all have checker, chess and card games a plenty, and shelf upon shelf of books for read-



## 244 THE BOYS' BOOK OF FIREMEN

ing and study, so that there is no need for a fireman's spare time to hang heavily on his hands. On winter evenings the recreation room in a fire station is an interesting and very lively place with all sorts of good healthful fun going on until bedtime, or until the merrymaking is interrupted by the quick sharp taps of the "joker," which brings each man up with a jerk, before he turns and rushes for the shining brass poles down which he slides to the apparatus floor.

Bedtime for a fireman is, as you already know, any time when he can catch a few winks of sleep, and half past nine or ten o'clock, providing no alarm interrupts in the meantime, the "blue-shirts" make ready to retire, hoping always to get in an hour or two of sleep before an alarm sounds. Instead of removing his clothes first, a fireman reverses the process and puts on more clothes before he finally starts to get ready for bed. First he slips on his "turn-outs," or working trousers, following which he draws on his boots tucking his trousers inside. This done, he sits on the edge of his bed and

draws off his trousers and boots at the same time, draping his trousers over the tops of the boots. In this fashion they stand beside his bed all night, in such a position that at the first tap of an alarm he can swing out of the covers and poke first one foot and then the other through trouser leg and so on into the boot. Thus does he put on trousers and boots in one operation, and in a twinkle he is rushing for the brass pole, tucking in his shirt and buckling his belt as he goes.

The passing of the horses from the fire departments and the establishment of motor driven apparatus has taken a great deal out of the firemen's lives in the way of pleasure and amusement. The men used to be very fond of the fine big animals and take a great delight in teaching them tricks, and in grooming and caring for them. Under the able tutelage of these firemen you may be sure that the intelligent animals learned a number of interesting tricks. In truth some fire horses became famous for their attainments. Almost every horse in the department that was at all mild

tempered, and most of them were, knew how to shake hands. They all learned to appreciate kindnesses, too, and some of them even acknowledged favors, such as lumps of sugar or apples, by coughing, shaking their heads, neighing or shaking hands.

A former official in the department tells some interesting facts about one of the most accomplished of these steeds. The horse in question, which has long since been retired, was a certain fine looking, intelligent animal, who with two other horses used to draw the heavy engine belonging to a company down in the Greenwich Village District of New York. This horse could shake hands, and he always acknowledged a lump of sugar by offering his big heavy hoof. He expected a lump of sugar whenever a stranger visited the engine house, and if the stranger happened to stand too near his stall and delay too long in handing out the sweets, the horse would rub his nose against the stranger's shoulder, or, perhaps, give him a gentle nip with his teeth. Of course if he was scolded for this, he would cough in a very

apologetic way and meekly offer to shake hands and call it square.

This animal was a practical joker, too, and one thing that he would do was to "trip" the harness as it hung in place over the pole of the engine. Whenever he got a chance he would reach over and tug at the straps with his mouth until the trip was released and all the harness came tumbling down with a great crash. After that he would walk back to his stall with a most innocent expression on his intelligent face.

There have been good horses and bad horses in the fire departments. Some have been veritable demons, jealous and unmanageable, but with all, so very intelligent that it would have been hard to get a horse to replace them. One of these was a big black horse in the downtown section of New York, who, more than once, sent a fireman to the hospital just because he became jealous over the fact that the "blue-shirt" was petting or feeding a horse in an adjoining stall.

Along with the horses most of the fire dogs

## 248 THE BOYS' BOOK OF FIREMEN

and other pets of the department have disappeared. Only now and then does one find a faithful old Dalmatian still in service. These fire dogs were always great favorites with the smoke-eaters. Dalmatians seemed to be the desired breed for pet and mascot, although an occasional Irish terrier, or fox terrier, did become a member of the canine branch of the service. Spot was the usual name given to a fire dog, because, of course, all Dalmatians, or coach-dogs, as they are sometimes called, are white dogs speckled all over with tiny black spots. There were, however, a great many fire dogs of the same breed who did not carry the name Spot. Sport was one of them, so was Oakie, a blue blood from the Oakland Kennels presented to the engine company at headquarters by an enthusiastic "Buff." Then there was Pinkie, and Bowser, and Muggins, and Mike, and Irish, and Rags, and a host of other notable fire dogs. All of these creatures were recognized throughout the department as belonging to the company with which they had taken up their home, and all of them, after

they had made good as fire dogs, and had "rolled" along with their company, were usually presented with a collar from which a tiny metal fire hat dangled. The chief duties of these dogs, at least as the dogs saw it, was to dart out of the fire house in front of the engine or truck, and rush, barking, up the street to the nearest corner, clearing traffic and warning pedestrians that the fire apparatus was coming. And many a dog met his death in performing this duty, for more than one was run over and killed, by trolleys, or trucks, or the fire apparatus.

Most of the fire dogs went with their companies to the scene of fire and some of them even entered the burning buildings, taking their punishment as bravely as their masters in uniform. More than one fire dog gained recognition in the papers through his bravery at fires, some even attempting to climb ladders in order to be with the firemen while the battle was going on. Then there were other dogs who would hurry to the scene of the fire, but would never forsake the apparatus, taking up

guard duty over the tools while the firemen were fighting the flames. Others would clear a path for the apparatus a distance of a block or two beyond the engine house and would then return to stand guard at the doorway of the house until the company returned.

There have, also, been some accomplished cats who were mascots of fire companies. Of course these cats never "rolled" with the companies as the dogs did, excepting they "roll" quite involuntarily, as happened in several instances. One cat had a habit of making her bed among the coils of hose in the hose cart and on several occasions Miss Pussy woke up in time to find her bed lurching and careering down the street to a fire. After the first experience of this kind, the cat refused to be frightened, or even annoyed. She clung to the swaying hose wagon until the scene of the fire was reached, when she quietly crawled inside a tool box and made a bed for herself on a pile of waste. Here she dozed, contentedly, until the hose wagon returned to the fire house.

Several companies adopted monkeys as pets,



**A Winter Fire Scene in Philadelphia**  
**Note the men at work on the extension ladder.**





but with little success. Monkeys were found to be entirely too mischievous to be kept about a fire house. Many stories are told about one famous pair known as Betsy and Bob, who developed into regular thieves. The firemen soon found that their pets were entering the houses of the neighborhood and stealing all the silverware and other bright objects they could lay hands on. They would bring their loot to the engine house and hide it in the firemen's beds. Of course this could not be tolerated, so the monkeys were promptly sent to the Central Park Zoo.

Another monkey, also the pet of a fire company, once entered a small lunchroom. When no one was looking, and after frightening the proprietor into the street, she calmly proceeded to throw cups and plates across the room until the firemen appeared and stopped her havoc. This same monkey entered the chief's office one time and amused herself with a bottle of ink, a bottle of mucilage and a hair pillow which she ripped open. When the firemen found her she was about three times her

normal size, for she had apparently taken a bath in the mucilage and ink and then tried to dry herself with the loose hair from the pillow.

Aside from their pets, however, the firemen have a host of friends, for every one, man, woman and child alike, respect and admire them. Indeed there is a certain class of men in every city who make it a point to assist the firemen in every way and do whatever they can to make their work easy. These men are usually enthusiasts in whom the sight of a fire engine or hook-and-ladder truck stirs the same emotions that it does in every boy. These men are born firemen, and they will follow the fire apparatus for blocks in order to watch the firemen work.

“Buffs” they have been dubbed by the fire fighters, and they are proud of the name. In fact at one time in New York City there was a regular organization of Buffs which was composed of forty or fifty very prominent business men. These men possessed rubber coats, boots and caps, and many of them had fire alarm “jokers” located in their homes and

offices so that they could receive every alarm. Nearly all of them made it a point to respond to all "seconds" and "thirds" for they knew that they would see some fire fighting on these occasions.

These men all possessed badges, such as those worn by newspaper reporters, which permitted them to enter the fire lines. And because they had this privilege, the Buffs were more than once able to be of real assistance to their firemen friends. The more wealthy among the members of this organization often provided hot coffee and sandwiches for the "blue-shirts" after the men had spent most of a cold winter's night at a fire.

Just how the name "Buff" originated is hard to tell. There are several very plausible stories current; but the most probable one seems to date back to the time when the volunteer fire departments in New York were just giving way to the paid fire fighters. At that time all the volunteers who were eligible and who cared to become members of the newly created paid department were permitted to do

so. There were, however, a great many who did not join the ranks of the paid firemen, but who retained their natural enthusiasm for fire fighting and aided the "blue-shirts" in every way. It happened that the dress uniforms of some of the volunteer companies were made of buff cloth, while the uniforms of the paid firemen were blue as they are to-day. And to distinguish the paid firemen from the volunteers, the latter was given the nickname "Buffs." Now the name is applied to every man or boy who shows any marked interest in the firemen and their ways.

In the early days of the paid departments when the Buffs were very active, certain groups of them would select a particular company and make that organization their favorite. These Buffs would do anything to help the men of their company "get first water" on a fire and beat the organizations that were favored by another group of Buffs. They would race ahead of the fire engine for blocks and locate the nearest fire hydrant to the blaze. Then they would gather around it and fight off

any other Buffs who sought to hold the hydrant for their company. Sometimes the Buffs would have a barrel handy, which they would promptly put over the top of the hydrant and they would not remove it until the men of their company arrived and were ready to stretch in a hose line.

Most of the original Buffs are dead now, and those who remain are so old that they can scarcely travel about the city; but younger Buffs are taking their places, and while they are not as active as the old fellows were they are just as friendly to the firemen and they are of just as much assistance as they can be. Probably the biggest group of Buffs are to be found among the Boy Scouts.

These lads are taught a great deal about fire prevention, rescue work, policing, etc., and all this comes in handy at fires. The boys, also, make it a point to become friendly with the firemen of the different companies and whenever there is work that Scouts can do, the firemen never hesitate to call upon them for service. And the Scouts are proud to be Buffs, too, and

proud of the fact that the firemen are willing to trust them to perform these minor duties, for it is a mark of honor to be permitted to assist men as brave and courageous as a smoke-eater must be. To these young admirers the firemen are heroes, indeed, and it is quite probable that any one of the boys would suffer real privation to be of service to the men in uniform.

But the youthful Buffs are not the only ones who appreciate the fact that the fire fighters are real heroes. In truth, grown-ups have long since acknowledged the fact that they are among the bravest and most heroic citizens of a community and in testimony of this there are any number of medals of honor given the blue-shirts every year for conspicuous service in line with their duty.

To deserve one of these medals is the ambition of every fireman, for with each medal goes recognition of the fact that the winner is a man of sterling courage who is ready to face death to carry out his duty.

Firemen Frank G. Rowe and David J. Oli-

ver of Hook-and-Ladder Company No. 15, are two medal of honor men, who did not hesitate an instant to face death in an effort to rescue a single life. And for their achievement one man was presented the famous Bonner Medal, while the other received the equally important Trevor-Warren Medal, and, of course, both received the additional Department Medal that usually accompanies such presentations.

Strangely enough the rescue that these men accomplished was not in connection with fire fighting at all. It was an emergency in which any man could have been the hero if he had possessed the necessary courage. But though there were other men on the scene of the accident at the time, no one possessed the grit to act until the two firemen arrived.

It happened that one of the big steamships moored at Pier 13 at the foot of Wall Street was being fumigated with great quantities of sulphur. The hold of the vessel reeked with the pungent and deadly odor and, of course, no one was allowed to enter any of the compartments. The fumigating had been done during



## 258 THE BOYS' BOOK OF FIREMEN

the evening and later that night some of the hatchways were removed to allow the smoke to escape. How it happened no one seemed to know, but a stevedore, Clarence Lageson, with two or three companions, was walking across the deck at one o'clock that morning when Lageson suddenly tripped and pitched forward landing on the very brink of the hatchway. For one precious moment he struggled to keep from falling into the hold. He clutched frantically at the smooth steel coping and his friends rushed forward to aid him. But before they reached him, his fingers slipped and with a cry of horror he pitched downward thirty-five feet into the hold. In an instant the awful situation dawned upon the three men who saw him vanish. He might have been killed by the fall, they knew, for a drop of thirty-five feet to the steel bottom of a vessel could easily result in a broken neck. But if he were only knocked unconscious, they were certain that he would be suffocated by the deadly sulphur fumes in a few minutes. What should they do! Not one of them had the grit to go into

the hold, for it was black down there and they lacked the courage. It was a situation to try their pluck and they were not brave enough to take the chance.

Then one of them thought of a brilliant idea.

“There’s a hook-and-ladder company a block away. I’ll call a couple of firemen. Maybe they have smoke helmets,” he suggested, and an instant later he was rushing pell mell up the street to the fire station. Rowe and Oliver were on watch and saw him coming. Breathlessly, the man told the firemen of the situation and asked them to bring their smoke helmets and a ladder.

“Smoke helmets?” replied Rowe, “we don’t have ’em. Only the Rescue Company is equipped with them. Anyway we don’t need ’em. It would take too long. Come on, we’ll get the man out.”

And after unshipping a ladder from the truck, back to the ship the three of them hurried.

When Oliver and Rowe looked into the nethermost darkness of the yawning hatchway

and smelled the pungent odor that arose therefrom, there would have been little wonder if they had hesitated just a moment. But not an instant did they waste. The ladder was lowered away, and first Rowe and then Oliver started down regardless of the fact that they were lowering themselves into a cavern of death and that they might never come out alive.

As they descended the fumes grew heavier. But they never wavered. They just protected their mouth and nose as best they could and continued downward until their feet struck the steel plates at the bottom. It was inky black in there and the fumes were terrible. In spite of themselves the firemen choked and coughed, as they stumbled about in the dark, groping for the unfortunate stevedore. How long they were in there neither of them know. It seemed like hours. Their heads were splitting and their lungs ached with the pain. They were dizzy and they had to fight with all the will power they possessed to keep from being overcome. Where was the man? Had he crawled

to the far end of the ship to die like a trapped rat? Was he still alive or was it only the body of a man they were looking for? All these questions they asked themselves as they searched.

Then, just when they were both on the point of giving up, Fireman Rowe found him, unconscious, and huddled in a heap, close against one of the cool steel plates of the side of the vessel. It required all the fireman's strength to gather the limp form into his arms and carry the man to the foot of the ladder, for he was weak and unsteady because of the fumes he had inhaled. At the ladder Fireman Oliver came to his assistance and between them they somehow managed to get the stevedore back on deck. And then as soon as the firemen's lungs were partly cleared of the fumes, they set to work and revived the unconscious stevedore, who, fortunately, had not sustained any serious injury from his fall.

Another hero of the New York Fire Department, who was recently awarded the Bennett Medal and the official Department Medal, is

Fireman James T. Daniels, of Hook-and-Ladder Company No. 26. Fireman Daniels is a fine big specimen of manhood, young, athletic and very strong. Indeed, if he were not stronger than the average man, he never would have been able to perform the feat of daring necessary to save the lives of one Isidor Windman, and his wife.

Truck 26 "rolled" to a big blaze in Madison Avenue at the unseemly hour of two o'clock one bleak January morning, and Daniels and his companions had scarcely rubbed the sleep from their eyes when they found themselves in the very thickest of a stirring battle with a terribly hot fire. Hose lines were being stretched in from every available hydrant and the high pressure wagons had their deck pipes driving powerful streams of water through the windows from which heavy clouds of smoke rolled.

The hooksie boys saw in a moment that they had no mean task before them. It was a big tenement and crowded with scores of families, some of which had been cut off inside the building and hemmed in by the flames. Dozens of

men, women and children were crowding down the fire escapes, some only half clad. Others were hurrying out of doorways or climbing through the first floor windows, carrying with them whatever they could grab up in their haste. But although these panic-stricken tenement dwellers moved fast the flames and smoke moved faster and the men of Truck 26 knew that it was a serious question whether every one would be cleared from the building in time.

Into the curling black smoke plunged some of the firemen, axes and pike poles in hand, determined to rescue as many persons as possible, while others of Company 26 unshipped short ladders and put them against the building in places where the tenement dwellers could use them to make their escape. Thus the building was slowly cleared of its occupants and soon it appeared as if all had been rescued. After that the firemen breathed easier for they felt that with all the occupants safe they could turn to fighting the fire unhampered.

And how they battled! Companies swarmed inside and outside the building, trying their

hardest to shut off every advance of the flames. But the fire had made terrible headway and rushed through the tenement from cellar to roof with mighty force. It drove one hose crew after another backward with its terrible sheets of flame; it hissed and roared up air shaft and stairway and literally burned the stairways away from under the feet of the bat-tlers. The firemen were stubborn and yielded ground only when they were absolutely forced to, but eventually they all had to give way. Inside the building the fire was so hot that every hose crew had to back out. One entire end of the structure was in flames, and it was evident to all that if any of the tenement dwellers had been caught inside they would have to perish for the building seemed doomed.

In the street new battle lines were formed and the firemen went at the fight again. Scores of streams were being hurled into the windows to keep the fire confined to the end in which it was burning. Great clouds of smoke were curling forth from every floor, almost en-

veloping the portion of the building to which the fire had not yet spread.

But suddenly a fitful gust of wind tore this heavy pall of smoke apart and exposed all of the tenement to the view of the firemen. And there in a fourth floor window high above the fifty-five foot ladders that leaned against the building were revealed the figures of two people, a man and a woman. They had been trapped, for the stairways had gone and the flames hemmed them in on all sides. The only way of escape was the window, and, unless the extension ladder could be raised to them immediately, they would perish, for the fire was fast sweeping in their direction.

In an instant the hook-and-ladder men were in action. Truck 26 was exactly in position and presently its long extension ladder began to rise from its bed and to swing toward the tenement, turning slowly on its pivot. Every one watched it, eagerly, and the two half-mad victims of the fire, marooned up there in the window, shrieked frenzied entreaties to the



firemen to hurry. Then, in a moment, the wind veered again and the heavy blanket of smoke drifted across the face of the tenement cutting the man and woman from view. Only their terror-stricken voices could be heard faintly above the roar of the flames.

But this did not daunt the firemen of Truck 26. With the utmost speed they swung the ladder into the smoke-bank and toward the place where they knew the window was located. And then, even while the ladder was being extended to what the firemen judged to be the necessary length, Daniels started aloft, unmindful of the choking black smoke he had to climb through. Up, up, he went, pushing onward and peering ahead of him through the thick smoke to locate the man and woman. On he climbed, and the wind came to his rescue for a moment, for, as he reached the top of the ladder, he saw six feet above him, the terrified man standing out on the windowsill, while flames and smoke licked the room back of him.

The ladder had not been extended high enough. It was still short of the windowsill.

But the frightened tenement dweller did not heed that. All he knew was the fact that the fire was close behind him and that in another few seconds he was doomed. He could wait no longer, and with a cry of terror he jumped toward the ladder, hurling himself, full force, at Daniels, who was frantically calling for him to wait just a moment longer.

What the fireman's thoughts were as he saw the man come plunging down toward him are hard to tell. Through his brain must have flashed the single thought that if the man struck him full force, he would be hurled from the ladder and both would go crashing to the street below. There was only one thing to do. He must catch the maddened creature in mid-air and swing him onto the ladder. It was their only hope. Like a football player making a tackle, Daniels reached out and wrapped his arms around the flying figure, at the same instant throwing all his weight toward the ladder, hoping thereby to counteract the force of the jump. How he accomplished the feat, he himself can hardly tell. For one brief instant

the lives of two men hung in the balance. Fortune, however, was with the fireman, and he broke the force of the jump and swung the tenement dweller onto the ladder.

Then, when he was sure the man was safe, Daniels shouted to him to descend, while he, in spite of the trying ordeal he had just gone through, climbed higher and pulled himself into the tenement window. Here he gathered the now unconscious woman into his arms and carried her to safety a few moments later.

This was not Fireman Daniels' first act of heroism. Only a few months previous, he had accomplished a rescue under almost the same circumstances for which he was awarded another honor medal.

But the fact that these men and a few score more have received official recognition of gallant services, does not mean that they are the only heroes among the firemen. Medals of honor do not indicate that the wearers are the only men in uniform who have the courage to dare and do.

In truth every man who dons a fire helmet

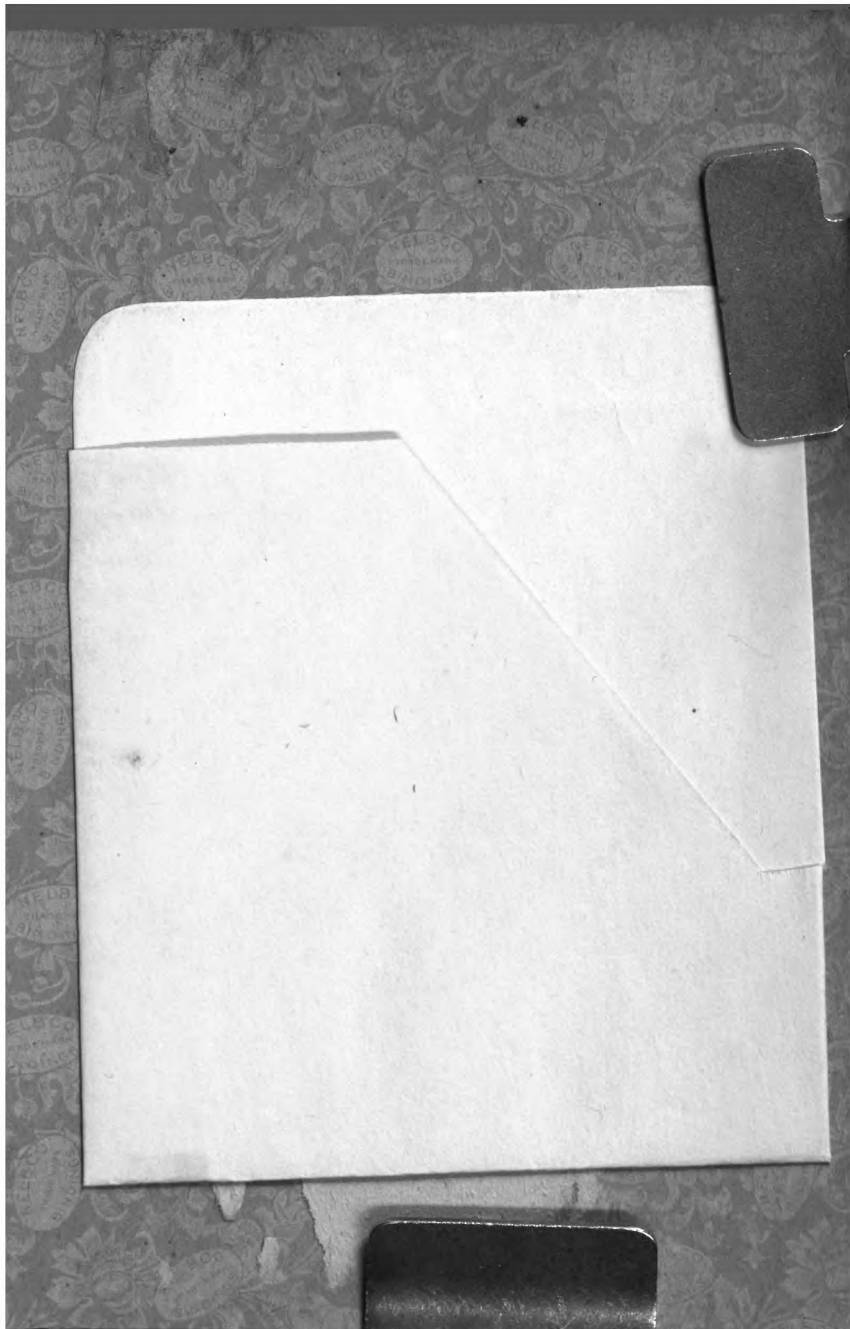
must be a man of extreme courage. He must be ready to risk all for the sake of duty. Every fireman is a hero. It is only those who are fortunate enough to be the first up the ladder, as it were, who receive the medal of honor recognition. Any "blue-shirt" would risk as much and try as hard as his comrades, and be willing to give everything, even his life, to the service. Indeed if he were not ready to do all this he would not be wanted as a member of the fire fighting force, for the men who guard the city must be men of the highest caliber.

THE END



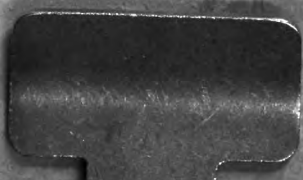






THE H. R. HUNTING CO.  
SPRINGFIELD, MASS.  
REINFORCED BINDING

Date \_\_\_\_\_





walt,kco  
352.3 C88bo  
Crump, Irving, 1887-  
The boys' book of firemen

UNIVERSITY OF MINNESOTA



3 1951 000 780 257 F

Minnesota Library Access Center



Q7A R10 D18 S02 TL 8