WE SAFEGUARD PROPERTY; NOW PROTECT LIFE---WALDO

Fire Commissioner Outlines Plans by Which, Having Made Our Buildings Fireproof, We Can Prevent the Slaughter of Those Who Have to Work in Them.

By Rhinelander Waldo, Fire Commissioner of New York City.

THE fire insurance companies can be relied upon to see that property is properly protected. It is up to the municipality to see that life as well as property is protected.

We have succeeded in erecting fireproof buildings. The Asch Building was fireproof. The fire which wiped out 145 lives left the building practically unharmed.

The problem is to make life in these fireproof buildings safe. At the present time very inadequate means are used to secure this end. In many cases there is a criminal carelessness on the part of owners and lessees in this matter. There are scores of buildings in the city where such a disaster as that which occurred in the Asch Building may happen any day. This applies particularly to factories where large numbers of people are employed and to places of public assembly.

Fire extinguishment in this city has about reached its maximum efficiency. When the motor-driven fire apparatus is installed throughout the city and also the high-pressure water system there will be little left for us to do to raise the efficiency of our fire-fighting force.

The great thing is to prevent fire.

This is simply taking a leaf from the book of the medical profession. For many years doctors concentrated all their efforts upon curing disease. The modern school bends its main efforts to preventive measures.

Fire prevention was first introduced into the cotton mills of New England. The fire insurance rates were so high that the mills got together on a co-operative basis for insurance purposes. It was Edward Atkinson who developed the fire-preventive measures to such a point that the losses were reduced 75 per cent. His chief object was the elimination of hazardous conditions and the introductions of safeguards, such as fire stops, sprinkler systems, and other auxiliary fire apparatus.

It may be news to many that this sprinkler system, which is being so much discussed now, was developed and used as long ago as 1878, when it was introduced in the New England cotton mills.

The City of New York should do for its citizens what these manufacturers did for themselves more than a quarter of a century ago. If the city will give me the necessary authority, I will cut fire losses at least 25 per cent. The loss now is about $8,591,000 annually.

The measures I suggest will put practically no new burden upon the tax payers and not too heavy a one upon owners of buildings.

The first object of the Fire Department should be the protection of life. The second, protection of property. Have you ever stopped to consider that every man, woman, and child in this city is exposed to a fire risk at every moment of the day and night, whether they are at home, in the Subway, at business, or at work in factory or office building? The danger of fire constantly hangs over them; and it is to be hoped that the aroused interest of the people will push through necessary reforms to minimize this danger as much as possible.

The first thing that I would suggest is the elimination of dangerous conditions, such as the improper storage of combustibles, the accumulation of rubbish, and the accumulation of inflammable material. It is surprising how careless owners, manufacturers, and employes are in this regard.

It is well known to the public who dwell in flathouses that most of the flat-house fires start from a cigarette or a match carelessly dropped in a heap or rubbish which has accumulated at the foot of a dumbwaiter shaft. Yet, though all the occupants of the house are endangered by this, not only do they make no effort to remove the rubbish, but they constantly add to it.

The same degree of carelessness is seen in people who smoke where oils and other inflammable materials are stored.

We have got to reckon on a certain amount of carelessness. What we must do is to minimize the resultant danger as much as possible by a careful and constant system of inspection and by putting the responsibility on the owners, lessees, or those otherwise in charge of property. If this were done, the responsible persons, by a system of fines or dismissals, could reduce the carelessness of their employes or those under their charge.

The next step: If a fire occurs it should be promptly discovered. This should be done by watchmen, or, better still, a system of automatic fire alarms, which will notify the occupants of the building of their danger and at the same time notify the Fire Department. This latter is of particular importance at night, and also in the daytime in the event of a fire breaking out in an unused loft, storeroom, or cellar. Many fires have burned several hours before they finally ate their way through partitions or windows, and thus came into public notice. By this time a fire has got good headway and has become a difficult problem to extinguish.

The next need is the introduction of auxiliary fire-appliances to extinguish the fire in its incipiency or to retard its progress until the arrival of the department. While hose pipe in the building can theoretically be used for this purpose, yet it often happens that a condition of panic immediately follows the discovery of fire and the hose pipe is left untouched in the reels upon the wall. We need go no further back than the Asch disaster to see an instance of this. Where fear is such a potent force it is best to eliminate as far as possible the human factor and to reduce all means of fighting fire to those that work automatically.

The extinguishing or retarding of the flames can best be done by what is known as the automatic sprinkler. This is a system of pipes which is suspended from the ceiling and which is connected with a tank on the roof. At certain distances on the pipes are nozzles which have fusible metal caps. This metal fuses at a temperature of 160 degrees. Even a small flame will open adjacent nozzles, and the water, which is thrown up against a plate, is diffused over the floor in a spray which covers about eight square feet.

Only last Wednesday there was a demonstration of the efficiency of the sprinkler system. Fire was discovered at 5:15 o'clock in the afternoon in the receiving department on the ninth floor of the building occupied by a well-known department store. Although there were probably more than 1,000 customers in the store at the time, only a few of them knew of the fire. The fact was unknown even to most of the employes. When the heat in the room rose to the necessary temperature the sprinkler system automatically began to work, and at the same time an alarm was automatically sounded. The fire was extinguished quickly with a damage by water that did not exceed $200.

Compare this with what would have occurred had there only been hose pipe in reels on the wall and panicky employes relied upon to haul them through rooms filled with panicky customers.

It has been said that the sprinkler system occupies too much room. One need only look at the system as it is installed in most of our department stores, in many factories, showrooms, and warehouses to see the falsity of this. The system of piping hangs from the ceiling not more than a foot, and occupies a negligible part of the space which is required for ventilation.

The efficiency of the sprinkler system is shown by the fact—a hard-cash fact—that the insurance companies cut the rate on those buildings which have it in use from 25 to 50 per cent.

Of course, I do not want to be understood as recommending the installation of the sprinkler system in all buildings. Like all other means of fire fighting, it has its proper place. I should say that this is in buildings in which a sufficient quantity of inflammable material is stored to create a possibility of quick fire.

High buildings have made it impossible to fight fires that occur in them from the street. Nine or ten stories is practically as high as we can reach by the use of water towers, even though they be connected with the high-pressure water system. This difficulty is met by the introduction of standpipes. These meet this danger satisfactorily. There is no danger, as has sometimes been said, of a fire sweeping through the tops of New York's skyscrapers. Even though a fire got well under way in one high building, the firemen could mount the neighboring high buildings, and by connecting their hose lines to the standpipes in these be unreliable in time of fire, and use an equal height.

Another necessity is what is known as fire stops, such as fireproof doors. Here again we should eliminate the human factor, which is so apt, as I have said, to be unreliable in time of fire and use an automatically closing door.

Another very useful fire stop is what is known as a fire curtain. This is a sheet of iron which hangs down from the ceiling about four feet. In a building having a large floor area, flame starting in one part of the room runs up to the ceiling and then creeps along it, and thus spreads rapidly through the whole room. A fire curtain, although not in any way obstructing the floor, or the commercial use of the room, acts as a time check on a fire and gives the occupants more time to escape, and also the Fire Department time to arrive.

Another protection of buildings which is greatly needed is the use of wire glass in all exterior windows where the adjacent buildings create hazardous conditions. This wire glass should also be used, where glass is required, for dumbwaiter doors and those leading to elevator shafts.

It should also be made necessary for the proprietors of all places of public assemblage to fireproof curtains and other draperies. You may recall that only a year or so ago a woman was burned to death in a well-known restaurant through the catching fire of a window curtain. Immediately thereafter the proprietor, of his own volition, had all the curtains and draperies in his restaurant fireproofed. This cost him only a couple of hundred dollars. While a curtain may be quickly pulled down, the fact must be remembered that in crowded places a small whiff of flame will often create a dangerous panic.

With a fire once under way, the problem is how to get the people out. For this we must rely upon fire-escapes. The ordinary fire-escape with its perpendicular ladders and narrow platform hatchways is practically of no use in buildings of any height or where there are large numbers of people employed.

The practical fire-escapes are of three kinds. The best of these is what is called the tower escape. It is a fireproof stairway entirely surrounded by brick walls cutting it off from the interior of the building, the only entrances being one on each floor from the exterior of the structure. These openings are to be reached from iron galleries running entirely around the exterior of each floor. This escape gives the occupants of a building means of egress which is entirely cut off from the fire.

The next best escape is a fireproof stairway, also enclosed in brick walls, but with doors opening into the interior of the building. These doors are fireproof and close automatically. The advantage of this form of escape is that it can be used during the daytime as an ordinary stairway. Its disadvantage is that in the event of fire smoke may leak through the doorways and blinds, or perhaps cause panic in those seeking to escape.

The third escape is an exterior iron stairway of easy descent and broad enough for two people to descend abreast. Connected with this there should be on each floor an iron gallery extending the entire width of the building.

I have been asked since the Asch disaster to define what I consider a safe fire escape. It is impossible to define a fire escape which would suit all buildings and all conditions. There are four variable factors which must guide one in deciding upon a fire escape for any given building. These are: The area of the building, number of persons commonly occupying floors, height, and nature of occupancy.

It should be borne in mind that while many buildings are fireproof, the contents are not. Therefore, fire escapes should also be required on fireproof buildings, except where provided with inclosed fireproof stairways.

With proper fire escapes, the next necessity is to teach the occupants of a building to use them. Wherever large numbers of people are employed, a fire drill is essential. Employers should be compelled by law to establish immediately a system of fire drills. It should be a part of the duty of Factory Inspectors to see that these drills are properly organized, and they should have authority to call for a practice drill at proper times.

Another thing that I would recommend most urgently is, that it should be made a felony to lock any door or in any way block any necessary means of egress from buildings where large numbers of people are congregated. Had the proper aisles been kept open in the Asch building, I think it safe to say there would have been no such appalling loss of life. The means of reaching one door was blocked by temporary partitions, and the means of reaching the other was largely hampered by sewing machines so placed as not to leave proper passage ways. A proper system of inspection should see that such conditions do not exist. It should not be left to the owners or occupants of buildings to arrange these things themselves, for even with the best of motives they are inexperienced in the matter, and do not know the conditions that arise in time of fire.

But the motives are by no means always the best. The public would be surprised if they knew the difficulties the Fire Department meets in enforcing the laws already enacted for their safety. This applies particularly to theatres. There is a law forbidding standees in theatres. In certain theatres if the fireman on duty notifies the management that there is a violation of the rule and that he is going to make complaint against him, the manager immediately allows as many standees as possible to come in. The total fine that he has rendered himself liable to is $50. By allowing a few hundred standees in the theatre he can pay the fifty-dollar fine, when after many legal delays it is finally levied, and still be a hundred or more dollars in pocket. This is merely an instance of the way laws enacted for the public safety are treated by certain managers and manufacturers.

As the matter stands to-day, there are three city departments who have to look after the safety of the citizens' lives so far as fire is concerned. The Fire Department has supervision over auxiliary fire appliances, but it is without authority in law to correct such deficiencies as there may be in this regard. The Building Department has charge of fire escapes. The Department of Water Supply, Gas and Electricity has charge of the inspection and regulation of electrical wiring in public buildings.

I have already urged and I again urge here that the question of fire prevention should receive the most serious consideration, and that a Bureau of Fire Prevention of the Fire Department should be established. This bureau should be apart from the uniformed force and under an official reporting directly to the Commissioner.

The Bureau of Fire Prevention should be subdivided into:

1. A division of auxiliary fire appliances, which should have charge of the installation of such auxiliary fire appliances and fire escapes as may be required in various buildings, including automatic sprinklers, standpipes, tanks, pumps, extinguishers, &c. This division should be in charge of a competent engineer.

2. A division of combustibles, to perform the work now being done by the Bureau of Combustibles. This bureau to regulate the manufacture, sale, use, storage, and transportation of combustibles.

3. A division of inspection. This division to carry on a systematic inspection of premises to determine whether or not all regulations which may be enacted for the prevention of fire are being observed.

4. A bureau of violations, under an official with legal training, for the purpose of enforcing regulations in the case of violations.

5. A division of the Fire Marshal. This division to investigate fires for the purpose of determining whether or not any criminality is attached and bringing offenders to justice.

The law should give the Fire Department the authority to control all matters with reference to fire escapes. Fire escapes are used, not only for the purpose of escape in case of fire, but also for fire fighting. Under the present system the Fire Department has no authority over them. In some cases fire escapes are under control of the Building Department, and in other cases under the Tenement House Department.

The department should have the necessary authority to eliminate dangerous conditions caused by accumulations of rubbish in cellars and the improper storage of explosives and combustible material. It should also have the power to obviate dangerous conditions arising from improper construction of chimneys, flues, &c.

It should also have authority to require necessary lights in cellars, hallways, and the installation of automatic or available manual shut-offs for gas, water, and electric currents.

The department should be granted the necessary power to make and enforce regulations for the prevention of fire and the limiting of the damages therefrom. The Fire Department should have the same power as is now granted to the Health Department to deal with hazardous conditions, especially where life and property are in danger. Under the present law the penalty for non-compliance is a nominal fine, which cannot be collected until after many months, and in no way compels compliance with regulations.

It is recommended that all employes except members of the fire-fighting force, now employed in the Bureau of Combustibles, the Bureau of Fire Marshal, and the Bureau of Violations and Auxiliary Fire Appliances, should be by law transferred to this new bureau.

The cost of creating a Fire Prevention Bureau would be small, as most of the force at present is employed by the ... in the various bureaus proposed to be consolidated.

The Fire Commissioner should also have authority to detail to this bureau, from time to time, such members of the fire-fighting force as, by reason of age or injuries incurred, may be incapacitated for fire duty.

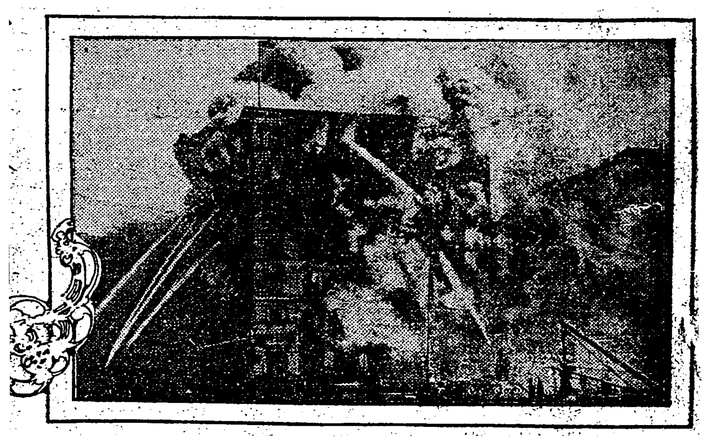
The functions of the Division of Electrical Inspection of the Department of Water Supply, Gas and Electricity, in so far as they relate to the inspection and regulation of wiring in private buildings for the prevention of fires, should be transferred to this division of the Fire Department, together with the personnel engaged in this work.

The number of fires in the City of New York would be materially lessened by the establishment of a bureau of this character with sufficent power to enforce its regulations.

Under the present laws the prevention of fire is under the Chief of Department who, for the purpose of its enforcement, maintains a bureau known as the Bureau of Violations and Auxiliary Fire Appliances.

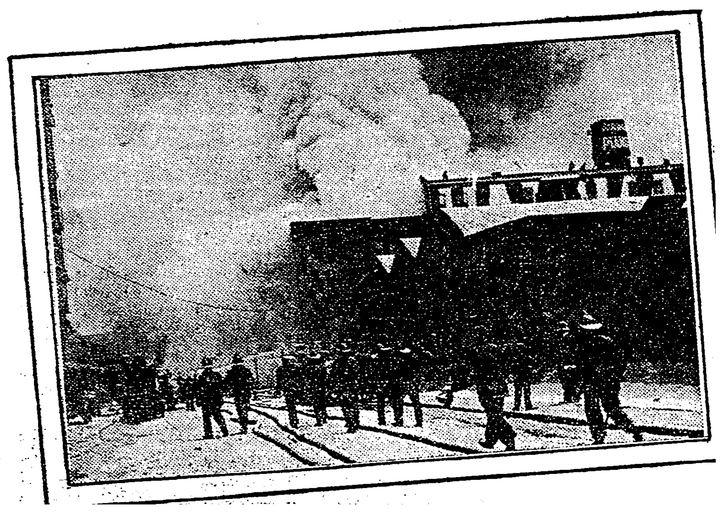
This bureau is charged with the introduction of such auxiliary fire appliances as, in the opinion of the Chief of Department, may be necessary.

It has recently been alleged that many of these auxiliary fire fighting appliances are patented, and if the city required their use in buildings it would compel people to buy a patented article at such rates as the patentee wished to place upon them. This is not the case. All of the auxiliary fire appliances recommended can be manufactured by any one; there are at least eight or ten sprinkler systems now on the market.



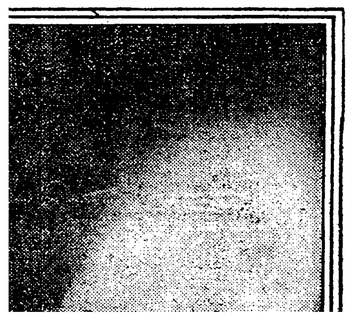
A Typical Scene in Fighting Fire.

Fireboats at the River Front.



A Bad Blaze—At Work on the Roof.

Rhinelander Waldo, Fire Commissioner.



The Searchlight Engine Assisting the Operation of the Water Tower at Night.

A RAISER OF CHICKENS TELLS HOW HE BECAME A WORLD-FAMOUS TAMER OF LIONS

George Conklin Gives Some of His Adventures in the Education of His Friends from the Jungle.

YES, Sir, I've put my head into the lion's mouth, afternoon and evening performance, day in and day out, week after week."

A big, raw-boned, grizzle-haired man stood in front of a lion's cage in the basement of Madison Square Garden, where the Greatest Show on Earth is now regaling the public, and looked at the unbusied lion's mouth with a sadly reminiscent air.

This unusual visitor to the circus was George Conklin. Forty years ago he entered the circus business as a handler and trainer of elephants and other big mammals. He stayed with the circus business until three years ago, when ill-health compelled him to retire. For the last score of years he had been with the Barnum & Bailey aggregation of animals and ring stunts.

Now you would never know what this man, who has made lions waltz around him and elephants kow-tow to him, took up as occupation in his retirement. He is raising chickens. Instead of the roar of the lion and the trumpeting of the elephants he now hears the cackling of industrious hens and the peep of incipient dittoes.

Well, he got tired of the cackle and peep, and the other day wandered over to Madison Square Garden to once more sniff the smell of the sawdust and the tanbark.

"No, Sir; animal trainers are not what they used to be. I'm not speaking of the men who handle the elephants—men like Bidwell and Clark. They have got to deliver the goods just as I had to do it when I was handling the elephants.

"Of course, there is always a chance of a lion or a tiger getting riled and forgetting his training, in the old days we had no kindergarten school for animals. They were handed over to us when they were three, four, or five years old, full grown, and with a full knowledge of the goods they could deliver.

"That was the kind of animal we had to train.

"Did we go right into the cage with them? No; we weren't quite so brash. We sized the animal up first. A lion or a tiger is a good deal like a man. The one that walks up and down the cage and growls and looks ugly can be counted on to be a bluff. The one that you want to look out for is the one that sulks and lays back in his corner and doesn't say anything. When you get into the cage with a critter like that he is not apt to say much. He simply does things.

"Bit? Sure I've been bit. Do you see this?—and this?—and—" the old animal trainer showed a scarred thumb, various battered fingers, a hand, and was willing to exhibit a shin.

"That last bite, the one on the shin, I got from a waltzing lion. During his trick he happened to get behind me and grabbed me on the leg.

"What did I do? I punched him on the nose. The nose is the tenderest part of a lion. I gave him a bloody nose and he sneaked off to his corner. The audience never knew that anything had happened.

"That didn't amount, though, to much as an experience. I have had animals loose out in the open. I remember one time out in Defiance, Ohio, a coal chute alongside the railroad track dropped down and sidewiped two animal wagons on a flat car. In the first wagon were two lions, in the second wagon two leopards. The coal chute ripped the sides out of both of those wagons and turned the animals loose.

"The train was just coming to a standstill at the time, and by good luck I was right on hand. There was one lion—he was my favorite lion, I called him George—and I caught him by the mane and led him into an empty freight car. The two leopards I grabbed, one at a time, and put them into another flat car, but the second lion had succeeded in making a getaway.

"Well, Sir, I stood there wondering where that missing lion had beaten it to. First thing I knew there was a bleat like that of a calf in agony. I said to myself 'that lion's killed a calf.'

"The bleat came from a barn a few hundred feet away from the railroad track. I hurried over and slammed an open door shut. Then I went to the farmhouse near the barn and said to the farmer: 'There's a lion of ours loose in your barn. Don't come out of the house.'

"'Don't worry,' said the farmer, slamming the door and bolting it on the inside.

"We unloaded the sacred cow out of a small, portable cage, backed the cage over against the door, and then with my raw-hide whip I entered the barn. In the dim interior I could see the lion crouching over the dead body of a cow. I afterward found that the lion had grabbed the cow by the nose, and it was this stifled bellow that made me think it was only a calf that had been killed.

"I gave the lion a crack with the whip and with a little more similar persuasion drove him into the portable cage. Aside from the damage to the two animal wagons, that accident cost the circus just $20, which we paid to the farmer through the window for his dead cow.

"But I've had it worse than that, much worse. I remember about twenty-five years ago we were running through a tunnel that led into a town by the name of Parkersburg, Ohio, I think, but I remember the tunnel well. It was called Tunnel 7.

"I don't know just what went wrong with the tracks or the ties or the car wheels, but anyhow the cars jumped the track and sort of telescoped. They were all smashed. It was night time and the tunnel was black as the inside of your hat when it's on your head.

"What turned loose? Well, Sir, there were our old friends, the lions and the leopards, emus, llamas, kangaroos, and a bunch of monkeys.

"I shouted to my men to run to each end of the tunnel and build bonfires. This would be a warning for the section behind us, or for any train coming in the other direction. It would also keep the animals in, if any of them got their wits about them and tried to make a getaway.

"I say we didn't have any trouble, but I mustn't forget poor Bill. Bill was an assistant of mine, and he didn't know as much about kangaroos as he thought he did. I saw him loping down the track after a kangaroo, and yelled to him: 'Grab him by the tail, Bill.' Bill didn't. He grabbed that kangaroo up in his arms; and if you have ever seen a kangaroo jump, you know that he has mighty powerful hind legs, and his front paws ain't to be sneezed at.

"The only animals that we hadn't rounded up within a half hour after the smash were the monkeys. They climbed up into the dark, and we couldn't shoo them out. But the farmers around there kept gathering them up for the next week or two, and they would come down along the line and turn them over to us. A free ticket to the show was more than any of them asked.

"There was an elephant we used to have back in the days before I joined with the Barnum & Bailey Circus, by the name of Samson. He lived up to his name. He had been purchased as a rival to Jumbo. Jumbo was taller, but if you take weight and length, Samson was bigger. I think he was the biggest elephant that America has ever seen, though some showmen say that Bolivar was bigger.

"Samson's first bad streak struck him out in Hales, Idaho. We were just coming in from the street parade. In this procession Samson carried on his back a ten-piece band. Lucky for those ten tooters they had just dismounted.

Then Samson beat it. He led off toward the cage wagon holding the lions. One of them reached out its paws, getting back to its old jungle rivalry, and this, perhaps, made Samson shy off. He struck the four-horse team and knocked them into a kicking heap. Then he struck off across the field and overturned ten cages.

Lucky for us, since there were plenty of townspeople about, none of the cages were broken. Samson was giving us all we wanted to attend to just then.

"There was a blacksmith's shop just across the way, and Samson made a beeline for this. He struck a big wagon loaded with ore and keeled it over. Meanwhile a lot of the natives had climbed on top of the water tank beside the railroad track. Samson headed for this.

"After seeing the way he had turned over the loaded wagons, the natives decided to take a chance on beating it across lots instead of sticking to their perch. You ought to have seen the hot streaks those people made for the distance.

"But some of the other natives got in secure places and unlimbered their Winchesters. Five of them scored hits. Only one of them, however, amounted to anything. This one hit the elephant just between the hips and plowed a foot under the skin of his back. It never feazed Samson. He made another run toward the railroad tracks, but got jammed between two cars that were loaded with iron.

"That was our chance. We swooped down on him, lassooed him, and with the assistance of another elephant quickly choked him into submission.

"You see, when an elephant feels anything around his neck he doesn't know enough to back out, but will plunge ahead. With the elephant and the circus men on the rope we were able to cut off his wind. When we got him down we fastened him tight.

"Mr. Cole, the proprietor of the circus, said: 'Conklin, punish that elephant—punish him good and plenty—we can't have him going on the rampage like that. Teach him a lesson, even if you kill him.'

"So I took six men and I gave them each a long pole and told them to lay to. Well, the way they lambasted old Samson was a caution. When they got tired I had a relay of six men take their place, and when these got tired I had the first gang of six go back to it, and so I kept the lambasting up until Samson let out a squeal.

"Samson got a few kinks in his head after that and started out to see the town, but all I needed to do was to speak to him and he changed his mind. If you've once licked an elephant good and plenty the chances are that he won't forget you."

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