

The Standard Oil's Death Factory

By MARY ROSS

ON Friday Ernest Oelgert went "loony" at work. Someone was following him, he complained. Then he dodged about the Standard Oil plant at Elizabeth, N. J., shouting that three men were coming at him at once. They took him to the hospital in Elizabeth. He died there the next day, in convulsions.

Others who had worked beside him in what the men called the "loony-gas building" acted strangely. William McSweeney went home from work sick and so violent that his sister called a policeman. When the policeman came he had to get in three other men to put McSweeney in a strait-jacket. They say William Kresge lost twenty-two pounds in four weeks during which he had worked in the building. Walter Dymock, ill at home, got up at night and walked out a second-story window. A passerby found him and called an ambulance. On Sunday these men and one other, Herbert Fuson, were taken to New York to the Reconstruction Hospital, which specializes in the treatment of industrial diseases and accidents.

Dymock died on Monday in a violent delirium; McSweeney, who until a year ago had been a brigadier general in the army of the Irish Free State, died the next day; Kresge on Wednesday; Fuson, strait-jacketed also, on Thursday. The "loony-gas" story came back to the first page of the New York newspapers. Thirty-six other employees of the Elizabeth plant of the Standard Oil were placed under observation in hospitals, eight others in their homes. Some of them showed no symptoms, others had headaches, "mental disturbances," dreams, or delirium.

With the deaths of the fourth and the fifth man came statements from the Standard Oil, one of whose executives had declared on the first day that "the men probably went insane because they worked too hard." The "loony-gas" was, in fact, no mystery, but lead tetra-ethyl; its manufacture, in a so-called research building, was the try-out of a new commercial undertaking on the part of the General Motors Chemical Company and the Standard Oil Company of New Jersey, which together own the Ethyl Gasoline Company. The substance, known to chemists for more than

half a century, and known as a deadly poison, is added to gasoline to keep engines from knocking. This ethyl gasoline, according to the Standard Oil Company, had, without waiting for fuller experimental tests, been put in use in 10,000 filling stations and garages.

From other sources came other bits of information. The discovery that lead tetra-ethyl would increase the power of gasoline and prevent the formation of carbon

and knocking of the engine was made at the plant of the General Motors Chemical Company at Dayton, Ohio. It is claimed that gasoline in which a small amount of it is dissolved will give an 8 per cent increase in power with an increase in cost of only 6 per cent. Multiplying that gain by the billions of gallons of gasoline burned in the country's twelve million automobiles will give some idea of the profits at stake in the commercial exploitation of this discovery.

But lead tetra-ethyl is so poisonous that a little rubbed on a man's hand will lower his blood pressure, perhaps even make him unconscious, before he can cross the room to wash it off. Its poison is absorbed in this way through the skin, or inhaled through the lungs from fumes which escape from large retorts during the course of manufacture. These fumes, according to Dr. Gilman Thompson, who is consulting physician for the Standard Oil Company, cause a congestion of the brain which results in symptoms not unlike those of delirium tremens. The Standard Oil Com-

pany declares that no accidents have been reported from the use of the treated gasoline in which the lead compound is present in dilution, though Dr. Yandell Henderson, professor of applied physiology at Yale University, believes that handling this gasoline or breathing the exhaust from an engine in which it is burned constitutes an insidious menace to health, possibly even to life.

Two years ago the General Motors Company asked Dr. Henderson, who is an expert in this field, to give his opinion on the use of tetra-ethyl lead gas. He reported that lead thus volatilized attacked the brain and nerves rapidly, resulting in the most dangerous form of lead poisoning, with delirium, paralysis, and other severe symptoms char-

DANGER!

Warning to those who handle tetra-ethyl-lead:

Ethyl gas is an anti-knock automobile fuel because it contains tetra-ethyl-lead, which is a very dangerous poison, if its fumes are breathed in sufficient quantity, or if it is allowed to come in contact with the skin in liquid form.

At places where tetra-ethyl-lead is produced or handled while exposed to atmosphere, it is known that at least four men have been so fatally poisoned that they died. Others were poisoned in various degrees according to their exposure and ability to resist the harmful effects caused by such combination of poisons.

Those who dispense ethyl gas at filling stations and others who handle liquid tetra-ethyl-lead should examine the containers in which it is shipped carefully, being sure that they are perfectly sealed and cannot leak. In case some of the liquid is spilled upon the skin, wash it off immediately. To fail to do so may cause death. If evaporation of tetra-ethyl-lead occurs in a closed or semi-enclosed place, promptly remove the liquid from the premises as quickly as possible, if it can be done without danger of bodily contact with it. Then promptly induce as much ventilation as possible, and leave the place until all the fumes have disappeared.

It is too dangerous to carry tetra-ethyl-lead in automobiles. In case of accident, it may be spilled upon the skin and thus may cause death. In case you use the anti-knock automobile fuel known as ethyl gas, remember that it contains tetra-ethyl-lead in great dilution with gasoline and is relatively less dangerous than tetra-ethyl-lead in undiluted form.

Warning to automobile mechanics:

Automobile fuels that contain tetra-ethyl-lead are colored red. Before commencing work upon a car, first determine whether the fuel may contain this poisonous solution. If it does, do not allow it to come in contact with the hands while adjusting carburetors, connecting or disconnecting fuel lines, etc. Do not wash out transmission and differential housings, crank cases, etc., with such fuel, thus avoiding the slopping of it onto the skin, clothing, and floor. Do not walk through puddles of ethyl gas, or lie down on places wet with it to work beneath automobiles. Do not allow ethyl gas, and especially tetra-ethyl-lead in undiluted form, to evaporate in enclosed places. Do not operate engines with this fuel in garages, for the exhaust from such engines may increase the amount of lead that may be in the air because of evaporation of ethyl gas or tetra-ethyl-lead. From such sources, because the human body can absorb tetra-ethyl-lead faster than it can eliminate it, it may, sometimes slowly and almost imperceptibly, accumulate in the system, which gradually may result in the insidious creeping of tetra-ethyl-lead poisoning upon the victim without his recognition of his condition before it may be too late to prevent serious illness or even death.

Sexual degeneracy denied:

Although the highest German, English, and American governmental authorities in such matters claim that many other chemical combinations containing lead may seriously affect sex germs, cause the birth of defective children, cause mothers to have still-births and miscarriages, and even prevent conception entirely, doctors and chemists connected with the company that manufacturers and sells tetra-ethyl-lead claim that since this anti-knock solution is a form of lead not heretofore in use, the harmful results produced by other forms of lead do not indicate the results that may be produced under such circumstances by tetra-ethyl-lead or by exhaust fumes from engines that use ethyl gas. However, since several years may elapse before the effects of such slowly cumulative poisoning may be proved or disproved to such doctors and chemists so employed, both potential and expectant fathers and mothers will evidence wise precaution by avoiding all contact with tetra-ethyl-lead, contact with fumes rising from it, and inhalation of exhaust fumes from engines in which is burned fuel containing this poisonous solution.

DAYTON CENTRAL LABOR UNION.

Jerry Calvin, Secy.

acteristic of the poisoning, which may cause permanent damage to the body when they do not kill. He believed that the exhausts from automobiles using this fuel in heavy traffic might well poison pedestrians on the street; in a garage the results would be even more disastrous. The fumes are especially dangerous, as symptoms may not develop at once and serious harm may be done before the victim realizes his peril.

A year ago the companies interested in ethyl gasoline asked the Bureau of Mines to investigate it with a view to determining its toxicity and the effects of the exhaust fumes. At the time of the Elizabeth accidents, the results of that study had not yet been made public. Its conclusions indicate that the substance is not dangerous as a motor fuel, but no report has been made yet in regard to danger in its manufacture.

The companies had also asked the research staff at Harvard University to undertake another analysis, but that request was refused. They also asked a report from the recently established department of industrial hygiene at Columbia University. Work there has been carried on for several months but still is incomplete.

But the companies did not wait. Manufacture went on. Two workmen died at the Dayton plant. The Du Pont plant in Wilmington, which makes lead tetra-ethyl on a commercial scale, also killed some of its workers. Manufacture was started on August 1 at the Elizabeth plant on a small scale; it was planned to carry the work on in a research building for six months as a temporary expedient to develop a commercial technique which could guide the company in the building of a large permanent factory, probably in Chicago. The tragedy which closed its doors on October 25 involved the death or hospitalization of virtually every man who was then employed in the "loony-gas" plant, and efforts are being made to determine whether or not the suicide of a chemist who jumped to death from his boarding-house last September and the illness of others who quit during the fall are to be traced to the same poison.

Manufacture on a commercial scale, according to Dr. Gilman Thompson, consulting expert for the Standard Oil, involves "processes still more or less in a stage of development. . . . This has occasioned unforeseen accidents, which, as processes and apparatus are further perfected, should be avoidable in the future."

Work at the Du Pont plant has apparently suffered a somewhat similar development. Its president is quoted as saying:

The Du Pont company, during the experimental period, experienced much trouble with the men becoming poisoned, *even to the extent of fatalities*. During the past year of production, when more than 100 men have been employed continuously, the difficulty has diminished steadily. In the past several months, under full production, only slight difficulties have been encountered. Experience has taught the necessary protection, both in plant and medical care.

An experience, however, bought dearly at the expense of those unfortunate enough to incur a "fatality"! And what, in human terms, are the present "slight difficulties"?

In the light of Mr. Du Pont's assurance that "workmen cumulatively poisoned by this material invariably indicate it in the incipient stages, before any harm is done, by a marked symptom," it is difficult to harmonize the collapse of the whole working force at Elizabeth on successive days

with the statement of the Standard Oil that its men were protected by every safeguard of equipment and supervision. Investigations have been started by the prosecutor of Union County and the New Jersey State Department of Labor to determine whether or not proper ventilating devices, medical inspection, facilities for washing and for changing work-clothes, and similar measures were in force. Rumors of neglect must be sifted. The workmen who were poisoned and died were not scientists working open-eyed in the investigation of a dangerous substance; they were common laborers, hired at eighty-five cents an hour, to carry out a new method of commercial manufacture for the profit of the Standard Oil. When an accident involves the whole plant it is difficult to accept such an excuse as that offered in the case of the two deaths at Dayton, where it was said that "without desiring to attach any blame to the employees" it was "very difficult to get the men to make use of safety devices provided for their protection by the company."

In due time the legal machinery probably will grind out a decision placing the blame for the deaths of the five men. In due time, also, scientists will provide at least a majority opinion as to whether or not the new fuel, ethyl gasoline, is fit for use, humanly speaking. The health department of New York City and health officers in parts of New Jersey have barred its sale. The Standard Oil's original idea of having it tested scientifically before trouble had been reported was good, but any member of the general motor-using public will inquire why, with one adverse judgment and two other investigations still incomplete, the company rushed forward and put the suspicious substance on sale in those 10,000 filling stations of which the company itself speaks.

It is to be hoped that the Standard Oil's assertion that there are no reports of untoward incidents in the use of ethyl gasoline, with its fraction of one per cent of lead tetra-ethyl, means that none have occurred. The case of the nine or more men who have met death in its manufacture in the last few months, and of the several times that number who have suffered serious, perhaps permanent, disability, offers unfortunately no room for optimism. They were human material, bought in the labor market at eighty-five cents an hour, and scrapped in the feverish rush to try out and market a new product which promised tremendous financial returns. It is always in such crises that the safeguards that protect human life suffer the worst disasters; when manufacture becomes routine and is carried on on a large scale public control comes to bear more effectively.

These men, however, are dead. To men still alive other questions, which judicial investigation can settle, are pertinent: Can the manufacture of ethyl gasoline be made safe enough to be tolerated in a civilized community? Was the wisdom learned by tragic experience at Wilmington applied at Elizabeth? Were the men told the history of work at Wilmington and Dayton so that they knowingly risked their lives for a wage and a nine-days' newspaper wonder? And finally:

When human lives, reckoned in dollars and cents, are cheap, and vast financial stakes are at issue in a venture demanding quick and risky action, are there any but the workers themselves to insist that commercial progress shall not be bought at an indefensible cost to their minds and bodies?

Try It On with Ships

(The Nation's *Weekly Washington Letter*)

By WILLIAM HARD

THERE is great promptness in government work at Washington. This promptness shows itself at twenty-nine minutes past four every afternoon. The number of clerks who can conclude their day's work, put on their hats, and get out of the doors of a government building between four twenty-nine and four thirty-one every afternoon without fail is one of the country's great spectacles of dispatch in the conduct of human affairs.

Government business reverses the cruel practices of private business. In government business the underneath people in multitudes are totally exempted from overwork, while the top people are frequently condemned to dreary drudgery.

Interstate commerce commissioners, those great and lofty characters who with a wiggle of their little fingers make and unmake rate-structures and the fortunes of the transportation system of the mightiest country on earth, sir, can be seen going home under the burden of large piles of documents which they must peruse in their evening hours.

Justices of the Supreme Court can be seen transforming the court into an intellectual sweat-shop of unceasing toil, especially if, like Mr. Justice Brandeis, besides reading everything about the cases which they have to decide, they feel it necessary to read everything else in order to get further light on the cases.

Presidents also have to work, even if, like the present President, which seldom happens, they know how to analyze and organize their work so well as to be able to get to bed at ten o'clock every night.

Top people at Washington, for the most part, perform labor, really. The first problem in public ownership and operation of anything at Washington is to provide the rank and file of employees with inspiring and compelling reasons for jazzing up the pace of their endeavors. Advocates of public ownership and operation might well address themselves to this problem. They confine themselves usually to trying to achieve public ownership and operation of something now privately owned and operated. This writer suggests to them, and to his boss, the editor of *The Nation*, that he and they might happily expand their propaganda to the point of trying to bring it about that something already publicly owned and operated at Washington should be operated well.

This writer, who looks with a cold eye at public ownership and operation of anything, is willing out of courtesy to go farther and to point out a specific instance in which public ownership and operation at Washington is in need of every assistance that the advocates of public ownership and operation can give it. This instance is ships. Why worry about public ownership and operation of gigantic water-power plants not yet built? Why not pay a little attention to the gigantic fleet of merchant vessels already in public hands and already being managed for weal or for woe by a government department? The thing for the advocates of public ownership and operation to do is to concentrate their energies upon our governmental merchant fleet and show us old weather-worn cynics at the national capital how to

make this undertaking an undoubted and glittering success.

The first problem to be solved will be the one to which reference has already been made. It will be necessary to create in the Shipping Board and in the Emergency Fleet Corporation the situation which exists today in most private companies and which enables underneath people to rise readily into being top people. Today, for instance, most railroad presidents rise from the ranks. Today, in a company like the great Standard Oil Company of Indiana, virtually every director, and perhaps absolutely every one, started at some such level as being the driver of a tank-wagon.

We must fix it so that the clerk who is filing manifests for the voyages of government freighters can readily see himself becoming a member of the Shipping Board. At present the law provides that two members of the Shipping Board must come from States on the Pacific, two of them from States on the Atlantic, one of them from a State on the Gulf of Mexico, one of them from a State on the Great Lakes, and one from "the interior." It further provides that not more than four of them shall be from the same political party.

Under a similar system the Standard Oil Company of Indiana would provide that three of its directors must come from Indianapolis and one each from Terre Haute, South Bend, Evansville, and Muncie, while one must come from some Indiana county neither on the Ohio River nor on Lake Michigan, and that if a director who was a Republican died he should be succeeded by a Republican and not by a Democrat. In practice further, if the Standard Oil Company of Indiana were managed like the Shipping Board, it would provide that the only sure way of never becoming a director of the company would be to enter its service as a rank-and-file employee.

It happens that at this moment at least fifteen distinguished persons are being considered by the President of the United States for appointment to the office of Secretary of Agriculture. It teaches every government clerk a lesson to notice that not one of these persons is a Department of Agriculture rank-and-file product.

Speaking roughly, and brutally, the under dog at Washington has just no chance at all ever to be really top dog. That must be changed if the Shipping Board service is ever going to be as alluring to young talent as the service of the Standard Oil Company of Indiana is.

Next, the Senate and the House of Representatives must be persuaded to be willing to pay for talent in the jobs that lie between the top and the bottom. The top people, like Cabinet members, have glory. The people just under them, and above the grade of clerk, have little glory. What compensation of nation-wide fame comes to a man for managing a government bureau or a government ship? Such men in such positions are forever fleeing from government employ to find refuge—and appreciation—in the service of ruthless private capitalists.

A multitude of other problems in the technique of successful government ownership and operation await solution. Why not descend upon Washington and solve them? Most of our ocean-going merchant ships seem likely for many years to be governmental. Perhaps, if the advocates of public ownership and operation would turn in and make the public service as attractive and as effective as private service is, those ships would remain governmental forever.

That's the challenge.