

REPORT CONDEMNS MAKING OF LEAD GAS

Workmen Cannot Be Safe-
guarded, Says New Jersey
Commissioner of Labor.

FATALITIES FROM CONTACT

Chemist Says Danger in Producing
Tetraethyl Lies in the Indiffer-
ence of Employees.

Dr. Andrew F. McBride, State Commissioner of Labor of New Jersey, made his report yesterday to Governor Silzer on his investigation of the manufacture of tetraethyl lead, the so-called "looney gas," which caused death to five and sickness to forty employees of the Standard Oil Company at Elizabeth, N. J.

Dr. McBride's finding was against the further manufacture of tetraethyl lead by the process formerly in use on the ground that "experience has demonstrated that workmen cannot be safeguarded against the effects of poisonous contact." The tetraethyl lead is added to gasoline to make its action more powerful.

Dr. McBride said that the Standard Oil Company failed to show that the gas masks which the company furnished were adapted to give protection against the lead fumes. He found that the corporation had complied with the letter of the State law in providing safeguards, but that the workmen had not been supervised so as to compel them to protect themselves.

Chemical Society's Report.

The American Chemical Society issued a statement yesterday insisting that the tetraethyl lead can be manufactured safely, but admitting that "perhaps the greatest hazard is the indifference which not only workmen but even chemists come to have for dangerous work with which they are familiar."

This weakness in human nature is, however, a thing that the employer must take into account, according to Dr. McBride, who argued that a manufacturer was not justified in conducting his manufacturing processes in such a way that the life or health of the employee became endangered the instant that he showed less than 100 per cent. prudence. After explaining that the Standard Oil Company had complied with the sanitary laws of the State in every particular, Dr. McBride continued:

"After making a careful examination of the processing apparatus we discovered that the methods employed in the production building were complicated, intricate, and at several points in the flow of material from raw to finished state permitted possibilities of contact by workmen with the poisonous tetraethyl lead substance. In several of the reactions pipe joints had to be made and broken repeatedly, thus presenting the possibility of the fluid leaking through the pipe joints and permitting the workmen to come in contact with it."

After carefully examining the premises, we are of the opinion that the fatalities were due to direct contact with the substance, and the investigation seemed to show that the workmen did not always wear rubber or canvas gloves in strict conformity with the plant rules, and that at least some of them said that the use of gas masks was impractical, as it interfered with the performance of their labor. I believe it is an open question as to whether the gas mask with a carbon content has any real practical value in an industrial operation of this kind. Gas masks were provided, however, and were maintained by the safety division of the plant in what would seem to be a reasonably satisfactory manner.

No authoritative documentary evidence was produced, however, to show that the gas masks that were used were adapted for the purpose in question in

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cloves, in strict conformity with the plant rules, and that at least some of them said that the use of gas masks was impractical, as it interfered with the performance of their labor. I believe it is an open question as to whether the gas mask with a carbon content has any real practical value in an industrial operation of this kind. Gas masks were provided, however, and were maintained by the safety division of the plant in what would seem to be a reasonably satisfactory manner.

No authoritative documentary evidence was produced, however, to show that the gas masks that were used were appropriate for the kind of service in which they were being used. It may be worth while at this point to warn industrialists not to place too much confidence in the protection afforded by protective clothing and gas masks when used by the ordinary run of workers as mediums of protection against the subtle physical effects of dangerous toxic substances.

While it appears that the Standard Oil Company adopted every measure of protection within the purview of the experience of the engineering and medical divisions of the corporation, we must not lose sight of the fact that, despite these precautions, five human lives were lost and a large number of workers were more or less seriously affected by lead poisoning.

Production Has Been Stopped.

"The production of tetraethyl lead has been permanently discontinued in the Bayway plant of the Standard Oil Company, and I have been assured by a representative of the company that the old process will not be used again and that no effort will be made to manufacture this material without first notifying the Department of Labor of the fact. I am opposed to any attempt to again produce this material by the same processing methods that were used in the past, as experience has demonstrated that workmen cannot be safeguarded against the effects of poisonous contact."

It would be "folly" to discontinue the manufacture of tetraethyl lead because of what had happened, according to the statement of the American Chemical Society, which makes public the conclusion of an investigation directed by Dr. Harrison E. Howe, editor of the official journal of the society.

"During the development, work lives have been lost," says the report, "but with a better understanding of the effects of tetraethyl lead illness has been steadily reduced among the workmen, until, like many other toxic materials, it can now be produced in large quantities with safety."

Ethyl gasoline is the material used by the motorist. The proportion of tetraethyl lead to gasoline is from one to 1,000 to one to 1,400, a dilution which makes a perfectly safe mixture. The products of combustion contain lead compounds, principally the oxide, much of which remains in various parts of the engine and its exhaust system, but a part of which is thrown into the air.

Obviously there are hazards involved, these being: First, in manufacture; second, in distribution and handling; third, in the use of the treated gasoline and, finally, the possible hazard to the public on account of the lead compounds thrown into the atmosphere. What does the evidence on these hazards indicate?

Unquestionably the manufacture of tetraethyl lead is hazardous. The men engaged in this work are so informed and receive extra compensation. Their condition is carefully watched by physicians. This type of poisoning differs from that of other lead compounds in that the tetraethyl lead seems to enter through fatty tissues and to be deposited as such in various parts of the body, including the brain, where it remains unchanged.

It does not appear to be cumulative and is thought to disappear by way of perspiration and body fluids if the man affected is promptly removed from contact with the material. The men who lost their lives were examined frequently for plumbism and forty others affected at the same time have been cured.

The hazards, moreover, are not greater than in many manufacturing processes. By working in completely closed systems safety is obtainable and perhaps the greatest hazard is the indifference which not only workmen but even chemists seem to have for dangerous work with which they are familiar.

The motorist meets no hazard in the use of ethyl gas, and clearly he shares only such hazards as may threaten the general public. The public wants to know how liable it is to lead poisoning due to the discharge into the atmosphere of some two or three tons of lead compounds per million gallons of ethyl gasoline burned.

But the public is not nearly so concerned as are the manufacturers who realize to what extent they would be the subject of attack should it develop that the public is endangered by the use of this fuel.

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NYT Nov 27, 1924 P 14

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AND JUDGE AX PUBLICITY

Page 1, Column 3.

developments followed elsewhere, including a motion on the part of a district, which gave holding the opening of which felt justified in

of the municipalities. Officials that publication is illegal and the probability to determine judicial process, I see appearing original opinion through the law appears making, nevertheless, to an see in warrant in the publication of these

I have but one aim and that without regard to favor, and it is not a matter which I am duty under the official.

that an orderly process determine the question of merits, and responsibility and responsibility of the court. Is no occasion for all concerned should be the ruling of the courts the question.

The situation as I have briefly state it, I have no doubt that these, listed and will not be given until a superior of government for the courts serving.

the Till After Election.

New York Times.

Oct. 30.—It was possible official quarter is no likelihood of a motion of the suit which at Stone will institute to of publishing the in-ly, quoted to public in-

al Stone will leave for Boston, where a political speech. Since the will not return to the election. Since the not be ready to insist for the departure of the case will await the future court action is

General is anxious to see as soon as possible. It is reported yesterday that it is before election day.

HULBERT CLASH.

Life Prophecy as to the Future.

of the Sinking Fund. It is a stormy scene. By the complaint of a man who declared that he had been financially by the operations of a group of a 500,000 affecting

Hulbert, who has erected a tent house at Garmen, has, however, begged the origin. The removal of a now used as a police station. A street improvement give a 400,000 to his new which he declared, because there was no

fact that he had been a City Hall in vain for having to get action and was ruined. He was cut by Hulbert, President of Michigan, who moved that the city for two weeks, that to postpone the action. The action was heard. The city has taken the streets at a cost of and the matter is again set up here in June. I moderate action.

to debate on the demand a roll-call. It broke in Mr. Hulbert's delay. Inter-ference, to make some-thing about, when he was told that he had not been talking Europe. Mr. Hulbert referred to Mr. Hulbert.

He spent for ten minutes other sets over his head. Mr. Hulbert, I am concerned, said that he called Mr. Hulbert.

WASHINGTON, Oct. 30.—Collector Routzahn, at Cleveland, has received the same instructions as other Collectors of Internal Revenue regarding inspection by the public of income tax records. Internal Revenue officials said tonight when informed that the Cleveland Collector had denied the privilege to newspaper correspondents. Assistant Com-troller Nash said that the bureau had not been officially advised of Mr. Routzahn's action and declined to comment on it.

The course of the bureau when complaints are received, Mr. Nash added, has been to telegraph to the Collector to comply with the instructions sent to him, informing him that he should be low any one to see the records, but should post conspicuously a warning against publication.

La Follette Says Law Is for Publicity.

ALBANY, N. Y., Oct. 30.—Before leaving here for Boston today Senator La Follette, commenting on the publication of income tax payments, declared that "the attempt of the Republican Administration to intimidate the newspaper of the country and to invade the constitutional right of freedom of the press through threats put out by the Republican Attorney General is only another instance of the lengths to which the Republicans will go in their attack of the private monopoly system."

"There is nothing in the law, Mr. La Follette asserted, which can be construed as forbidding the publication of the lists of names, addresses and amounts, which the Treasury Department is committed to prepare and which it has to date failed to prepare."

"Secretary Mellon," he said, "showed no tender concern for the secrecy of income tax returns when he made public the sources and amount of the personal income of Senator Cozens of Michigan, a thing specifically forbidden by the law, and he authorized the President. I would like to ask now, the President, whether he authorizes the publication of Senator Cozens's income."

Capper Reports Spending \$28.

WASHINGTON, Oct. 30.—Senator Capper, Republican, of Kansas, advised the secretary of the Senate today that he had received no contributions to date in his contest for reelection, and that his expenditures had been \$28. L. J. Tyson, Democratic candidate for Senator in Tennessee, reported contributions of \$2,500. H. C. Smith, Democratic candidate for the Senate in New Mexico, reported contributions of \$200 and expenditures of \$700, explaining that most of the money paid out had gone to the State committee.

\$4,100 PAID FOR A RUG.

Fourth Session of Auction of "Darlington" Furnishings Nets \$52,000.

The fourth session yesterday of the sale by S. G. Bates of the furnishings of Darlington, the country estate of the late Emerson M. Merrill and formerly that of the late George Crocker of New York, amounted to \$52,000. The total to date is \$247,000.

Two important early Renaissance needlework tapestries, Nos. 1001 and 1002, went yesterday to an unidentified buyer, giving the initials H. S., for \$3,000 and \$3,300 respectively. The first depicts the rescue of "Helen of Troy," and the second "The Siege of Troy."

No. 1146, a royal Kermanshah rug, was bought by T. Davis for \$4,100. Another royal Kermanshah, No. 1140, brought \$2,400, going to M. Tilford.

John Rinehart bought several items, No. 1005, a Pompeian hall table, for \$675; No. 1073, a William-and-Mary carved gilt settee and six chairs, for \$800; and No. 1084, two Georgian mirrors, for \$800.

A Mississippian paid \$1,300 for No. 1143, a mounted puma rug, and K. Kostyuk paid \$1,000 for No. 1145, a three-fold oze leather screen. L. G. Parish also paid \$1,000 for No. 984, an Adam satin-wood settee. Mrs. F. W. Schumacher of Columbus, Ohio, a previous large buyer, paid \$250 for No. 902, three pairs of Italian silk and gold brocade portieres, and E. Devlin paid \$200 for No. 947, a Japanese carved Kawa

trict, of which Frank K. M. is collector, with offices in the Custom House.

Charles W. Anderson, collector of the Third District with offices at 250 West

BAR ETHYL GASOLINE AS 5TH VICTIM DIES

Continued from Page 1, Column 2.

investigators of the alleged dangers lurking in the use of the tetraethyl lead gas, called the calling of a special meeting of the Board of Health of New York, at which this resolution was adopted:

"Whereas it has been brought to the attention of the Board of Health that compounds of lead or other deleterious substances are being added to gasoline in tanks of motor vehicles and motor pumps generally for the purpose of increasing gasoline or motor efficiency; and

"Whereas it is the opinion of the Board of Health that such mixtures of gasoline, containing lead or other deleterious substances, may be liable to prove detrimental to the health of the public, particularly when released as exhaust from motor vehicles and motor engines; be it

"Resolved, That the Board of Health does hereby prohibit and forbid the use of gasoline for any of the above purposes to which either compounds containing lead or other deleterious substances have been added, and also does hereby prohibit and forbid the addition of substances to gasoline intended to be used for such purposes.

Health Commissioner Frank J. Monaghan afterward held a conference with a number of health officials from New Jersey, at which it was decided to make a further study of the effects of tetraethyl lead in gasoline engines, to determine whether it presented a menace in garages, repair shops and congested streets, as has been alleged by scientists and denied by the manufacturers. The health officers in Union County were all requested by Prosecutor David to stop the sale of gasoline combined with lead.

Defended by Inventor.

Thomas Midgley Jr., discoverer of the use of ethyl lead for increasing power in gasoline, defended his compound at an interview yesterday at the office of the Standard Oil Company, at 26 Broadway. To prove that the substance was not dangerous in small quantities he produced some of the tetraethyl lead on his hands. He said that two fatalities from the use of the substance had occurred at the Dayton plant of the General Motors Chemical Company, which also has been making this gasoline compound.

Mr. Midgley said the Bureau of Mines had been asked to make a post thorough investigation of the effects of tetraethyl lead on poisoning, and that the bureau had been conducting tests in this connection for about ten months. According to an official of the Standard Oil Company, the bureau will make a statement on the results of these tests in two or three days. The tests are being made, Mr. Midgley said, at the request of the General Motors Corporation, which, with the Standard Oil Company of New Jersey, owns the Ethyl Gasoline Corporation.

Not only had the employees of the Dayton research plant been under observation after handling the fluid, two of these cases proving fatal, but similar difficulties in erecting adequate safeguards for employees had been met with at the du Pont laboratories. Mr. Midgley revealed that the experience in combating the effects of the tetraethyl had been general wherever the process had been carried out. Without, he said, desiring to attach any blame to the employees, it had been found at the Dayton plant that the men, regardless of warnings and provision for their protection, had failed to appreciate the dangers of constant absorption of the fluid by their hands and arms.

Manufacture Not Perfected.

Dr. J. Gilman Thompson, consulting physician for the Standard Oil Company, who was present at this interview, gave out the following typewritten statement on the subject:

"Tetraethyl lead is a substance first known to chemists in 1854. Since that time it frequently has been experimented with in chemical laboratories, where it was known to be in concentrated form, poison. It is a compound of metallic lead and one of the alcohols, chemical series. Its recently discovered use for greatly promoting the efficiency of gasoline engines has led to its manufacture on a commercial scale through processes still more or less in a stage of develop-

ment. This has occasioned unforeseen accidents, which, as processes and apparatus are further perfected, should be avoidable in the future. One of these has been the sudden escape of fumes from large refiners, and the inhalation of such fumes gives rise to acute symptoms, particularly congestion of the brain, producing a condition not unlike delirium tremens. Although there is lead in the compound, these acute symptoms are wholly unlike those of chronic lead poisoning such as painters often have.

"There is no obscurity whatever about the effects of the poison and characterizing the substance as 'mystery gas' or 'invisibility gas' is grossly misleading. In the recent cases of poisoning occurring among employees of the Standard Oil Company of New Jersey, there were five which resulted fatally before the delirium could be controlled. The other patients were affected in mild degree, but promptly were brought to the Reconstruction Hospital in New York, because that institution is devoted exclusively to the treatment and investigation of industrial diseases and accidents. Here new methods of curative treatment have been discovered, which are proving highly successful.

"It should be emphasized that the product as destined for final use in gasoline engines has to be greatly diluted, usually with 1,000 parts of gasoline. This extremely diluted product has been for more than a year in public use in over 10,000 filling stations and garages, and no ill effects thus far have been reported.

Standard Oil officials expressed the opinion that the Hayway plant, closed after the fatalities, probably would not be reopened. The work on which the men who were stricken were engaged will be carried on at the du Pont plant, it was said.

Believe the Men Knew Danger.

Asked what would be the reaction of the Standard Oil Company to possible claims of families of men who died from the poison that the stricken men were never aware of the extent of danger involved in their work, officials of the company replied that the rejection of many men as physically unfit to engage in the work at the Hayway plant, daily physical examinations, constant admonitions as to wearing rubber gloves and using gas masks and not wearing away from the plant clothing worn during work hours should have been sufficient indication to every man in the plant that he was engaged "in a man's undertaking."

DU PONT TELLS OF THE GAS.

His Company Had Fatalities, but Has Lessened Dangers.

Special to The New York Times.

WASHINGTON, Del., Oct. 30.—Death from poisonous gases encountered in the manufacture of motor fuels by the Standard Oil Company and the possibility of similar occurrences here were commented upon today by Irene du Pont, President of the E. I. du Pont de Nemours Company.

In an interview today he said that in the earlier experimental stages of manufacturing tetraethyl lead some accidents and fatalities had occurred, but when the experimental stage had been passed these accidents ceased.

"Tetraethyl lead, which the du Pont Company is manufacturing on a commercial scale," he said, "and which is reported as the cause of the recent unfortunate accident at the Hayway plant of the Standard Oil Company, should not be confused with ethyl gas, an improved motor fuel which contains less than one-tenth part of 1 per cent. of tetraethyl lead."

"Tetraethyl lead is poisonous and its manufacture involves risk, but no more so than many chemicals manufactured and used in enormously greater amounts. The du Pont Company, during the experimental period, experienced much trouble with 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.

"We find that workmen involuntarily poisoned by this material invariably indicate it in the incipient stages, before any harm is done, by a marked symptom. Doctors in the employ of the company continually make tests on workers engaged in this process."

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