Eleven Blue Men

AT about eight o'clock on Monday morning, September 25, 1944, a ragged, aimless old man of eighty-two collapsed on the sidewalk on Dey Street, near the Hudson Terminal. Innumerable people must have noticed him, but he lay there alone for several minutes, dazed, doubled up with abdominal cramps, and in an agony of retching. Then a policeman came along. Until the policeman bent over the old man, he may have supposed that he had just a sick drunk on his hands; wanderers dropped by drink are common in that part of town in the early morning. It was not an opinion that he could have held for long. The old man's nose, lips, ears, and fingers were sky-blue. The policeman went to a telephone and put in an ambulance call to Beekman-Downtown Hospital, half a dozen blocks away. The old man was carried into the emergency room there at eight-thirty. By that time, he was unconscious and the blueness had spread over a large part of his body. The examining physician attributed the old man's morbid color to cyanosis, a condition that usually results from an insufficient supply of oxygen in the blood, and also noted that he was diarrheic and in a severe state of shock. The course of treatment prescribed by the doctor was conventional. It included an instant gastric lavage, heart stimulants, bed rest, and oxygen therapy. Presently, the old man recovered an encouraging, if painful, consciousness and demanded, irascibly and in the name of God, to know what had happened to him. It was a question that, at the moment, nobody could answer with much confidence.

For the immediate record, the doctor made a free-hand diagnosis of carbon-monoxide poisoning—from what source, whether an automobile or a gas pipe, it was, of course, pointless even to guess. Then, because an isolated instance of gas poisoning is something of a rarity in a section of the city as crammed with human beings as downtown Manhattan, he and his colleagues in the emergency room braced themselves for at least a couple more victims. Their foresight was promptly and generously rewarded. A second man was rolled in at ten-twenty-five. Forty minutes later, an ambulance drove up with three more men. At eleven-twenty, two others were brought in. An additional two arrived during the next fifteen minutes. Around noon, still another was admitted. All of these nine men were also elderly and dilapidated, all had been in misery for at least an hour, and all were rigid, cyanotic, and in a state of shock. The entire body of one, a bony, seventy-three-year-old consumptive named John Mitchell, was blue. Dive nine, including Mitchell, had been stricken in the Globe Hotel, a sunless, upstairs flophouse at 190 Park Row, and two in a similar place, called the Star Hotel, at 3 James Street. Another had been found slumped in the doorway of a condemned building on Park Row, not far from City Hall Park, by a policeman. The ninth had keeled over in front of the Eclipse Cafeteria, at 6 Chatham Square. At a quarter to seven that evening, one more aged blue man was brought in. He had been lying, too sick to ask for help, on his cot in a cubicle in the Lion Hotel, another flophouse, at 26 Bowery, since ten o'clock that morning. A clerk had finally looked in and seen him.

By the time this last blue man arrived at the hospital, an investigation of the case by the Department of Health, to which all outbreaks of an epidemiological nature must be reported, had been under way for five hours. Its findings thus far had not been illuminating. The investigation was conducted by two men. One was the Health Department's chief epidemiologist, Dr. Morris Greenberg, a small, fragile, reflective man of fifty-seven, who is now acting director of the Bureau

of Preventable Diseases; the other was Dr. Ottavio Pellitteri, a field epidemiologist, who, since 1946, has been administrative medical inspector for the Bureau. He is thirty-six years old, pale, and stocky, and has a bristling black mustache. One day, when I was in Dr. Greenberg's office, he and Dr. Pellitteri told me about the case. Their recollection of it is, understandably, vivid. The derelicts were the victims of a type of poisoning so rare that only ten previous outbreaks of it had been recorded in medical literature. Of these, two were in the United States and two in Germany; the others had been reported in France, England, Switzerland, Algeria, Australia, and India. Up to September 25, 1944, the largest number of people stricken in a single outbreak was four. That was in Algeria, in 19~6.

The Beekman-Downtown Hospital telephoned a report of the occurrence to the Health Department just before noon. As is customary, copies of the report were sent to all the Department's administrative officers. "Mine was on my desk when I got back from lunch," Dr. Greenberg said to me. "It didn't sound like much. Nine persons believed to be suffering from carbon-monoxide poisoning had been admitted during the morning, and all of them said that they had eaten breakfast at the Eclipse Cafeteria, at 6 Chatham Square. Still, it was a job for us. I checked with the clerk who handles assignments and found that Pellitteri had gone out on it. That was all I wanted to know. If it amounted to anything, I knew he'd phone me before making a written report. That's an arrangement we have here. Well, a couple of hours later I got a call from him. My interest perked right up."

"I was at the hospital," Dr. Pellitteri told me, "and I'd talked to the staff and most of the men. There were ten of them by then, of course. They were sick as dogs, but only one was in really bad shape."

"That was John Mitchell," Dr. Greenberg put in. "He died the next night. I understand his condition was hopeless from the start. The others, including the old boy who came in last, pulled through all right. Excuse me, Ottavio, but I just thought I'd get that out of the way. Go on."

Dr. Pellitteri nodded. "I wasp's at all convinced that it was gas poisoning," he continued. "The staff was beginning to doubt it, too. The symptoms weren't quite right. There didn't seem to be any of the headache and general dopiness that you get with gas. What really made me suspicious was this: Only two or three of the men had eaten breakfast in the cafeteria at the same time. They had straggled in all the way from seven o'clock to ten. That meant that the place would have had to be full of gas for at least three hours, which is preposterous. It also indicated that we ought to have had a lot more sick people than we did. Those Chatham Square eating places have a big turnover. Well, to make sure, I checked with Bellevue, Gouverneur, St. Vincent's, and the other downtown hospitals. None of them had seen a trace of cyanosis. Then I talked to the sick men some more. I learned two interesting things. One was that they had all got sick right after eating. Within thirty minutes. The other was that all but one had eaten oatmeal, rolls, and coffee. He ate just oatmeal. When ten men eat the same thing in the same place on the same day and then all come down with the same illness . . . I told Greenberg that my hunch was food poisoning."

"I was willing to rule out gas," Dr. Greenberg said. A folder containing data on the case lay on the desk before him. He lifted the cover thoughtfully, then let it drop. "And I agreed that the oatmeal sounded pretty suspicious. That was as far as I was willing to go. Common, ordinary, everyday food

poisoning—I gathered that was what Pellitteri had in mind—wasn't a very satisfying answer. For one thing, cyanosis is hardly symptomatic of that. On the other hand, diarrhea and severe vomiting are, almost invariably. But they weren't in the clinical picture, I found, except in two or three of the cases. Moreover, the incubation periods—the time lapse between eating and illness—were extremely short. As you probably know, most food poisoning is caused by eating something that has been contaminated by bacteria. The usual offenders are the staphylococci—they're mostly responsible for boils and skin infections and so on—and the salmonella. The latter are related to the typhoid organism. In a staphylococcus case, the first symptoms rarely develop in under two hours. Often, it's closer to five. The incubation period in the other ranges from twelve to thirty-six hours. But here we were with something that hit in thirty minutes or less. Why, one of the men had got only as far as the sides walk in front of the cafeteria before he was knocked out Another fact that Pellitteri had dug up struck me as very significant. All of the men told him that the illness had come on with extraordinary suddenness. One minute they were feeling fine, and the next minute they were practically helpless. That was another point against the ordinary food poisoning theory. Its onset is never that fast. Well, that suddenness began to look like a lead. It led me to suspect that some drug might be to blame. A quick and sudden reaction is characteristic of a great many drugs. So is the combination of cyanosis and shock."

"None of the men were on dope," Dr. Pellitteri said. "I told Greenberg I was sure of that. Their pleasure was booze."

"That was O.K.," Dr. Greenberg said. "They could have got a toxic dose of some drug by accident. In the oatmeal, most likely. I couldn't help thinking that the oatmeal was relevant to our problem. At any rate, the drug idea was very persuasive."

"So was Greenberg," Dr. Pellitteri remarked with a smile. "Actually, it was the only explanation in sight that seemed to account for everything we knew about the clinical and environmental picture."

"All we had to do now was prove it," Dr. Greenberg went on mildly. "I asked Pellitteri to get a blood sample from each of the men before leaving the hospital for a look at the cafeteria. We agreed he would send the specimens to the city toxicologist, Dr. Alexander O. Gettler, for an overnight analysis. I wanted to know if the blood contained methemoglobin. Methemoglobin is a compound that's formed only when any one of several drugs enters the blood. Gettler's report would tell us if we were at least on the right track. That is, it would give us a yes-or-no answer on drugs. If the answer was yes, then we could go on from there to identify the particular drug. How we would go about that would depend on what Pellitteri was able to turn up at the cafeteria. In the meantime, there was nothing for me to do but wait for their reports. I'd theorized myself hoarse."

Dr. Pellitteri, having attended to his bloodletting with reasonable dispatch, reached the Eclipse Cafeteria at around Eve o'clock. "It was about what I'd expected," he told me. "Strictly a horse market, and dirtier than most. The sort of place where you can get a full meal for fifteen cents. There was a grind house on one side, a cigar store on the other, and the 'L' overhead. Incidentally, the Eclipse went out of business a year or so after I was there, but that had nothing to do with us. It was just a coincidence. Well, the place looked deserted and the door was locked. I knocked, and a man came out of the back and let me in. He was one of our people, a health inspector for the Bureau of

Food and Drugs, named Weinberg. His bureau had stepped into the case as a matter of routine, because of the reference to a restaurant in the notification report. I was glad to see him and to have his help. For one thing, he had put a temporary embargo on everything in the cafeteria. That's why it was closed up. His main job, though, was to check the place for violations of the sanitation code. He was finding plenty."

"Let me read you a few of Weinberg's findings," Dr. Greenberg said, extracting a paper from the folder on his desk. "None of them had any direct bearing on our problem, but I think they'll give you a good idea of what the Eclipse was like—what too many restaurants are like. This copy of his report lists fifteen specific violations. Here they are: 'Premises heavily infested with roaches. Fly infestation throughout premises. Floor defective in rear part of dining room. Kitchen walls and ceiling encrusted with grease and soot. Kitchen floor encrusted with dirt. Refuse under kitchen fixtures. Sterilizing facilities inadequate. Sink defective. Floor and walls at serving tables and coffee urns encrusted with dirt. Kitchen utensils encrusted with dirt and grease. Storage cellar walls, ceiling, and floor encrusted with dirt. Floor and shelves in cellar covered with refuse and useless material. Cellar ceiling defective. Sewer pipe leaking. Open sewer line in cellar.' Well . . ." He gave me a squeamish smile and stuck the paper back in the folder.

"I can see it now," Dr. Pellitteri said. "And smell it. Especially the kitchen, where I spent most of my time. Weinberg had the proprietor and the cook out there, and I talked to them while he prowled around. They were very cooperative. Naturally. They were scared to death. They knew nothing about gas in the place and there was no sign of any, so I went to work on the food. None of what had been prepared for breakfast that morning was left. That, of course, would have been too much to hope for. But I was able to get together some of the kind of stuff that had gone into the men's breakfast, so that we could make a chemical determination at the Department. What I took was ground coffee, sugar, a mixture of evaporated milk and water that passed for cream, some bakery rolls, a five-pound carton of dry oatmeal, and some salt. The salt had been used in preparing the oatmeal. That morning, like every morning, the cook told me, he had prepared six gallons of oatmeal, enough to serve around a hundred and twenty-five people. To make it, he used five pounds of dry cereal, four gallons of water—regular city water—and a handful of salt. That was his term—a handful. There was an open gallon can of salt standing on the stove. He said the handful he'd put in that morning's oatmeal had come from that. He refilled the can on the stove every morning from a big supply can. He pointed out the big can—it was up on a shelf—and as I was getting it down to take with me, I saw another can, just like it, nearby. I took that one down, too. It was also full of salt, or, rather, something that looked like salt. The proprietor said it wasn't salt. He said it was saltpetre—sodium nitrate—that he used in coming beef and in making pastrami. Well, there isn't any harm in saltpetre; it doesn't even act as an antiaphrodisiac, as a lot of people seem to think. But I wrapped it up with the other loot and took it along, just for fun. The fact is, I guess, everything in that damn place looked like poison."

After Dr. Pellitteri had deposited his loot with a Health Department chemist, Andrew J. Pensa, who promised to have a,report ready by the following afternoon, he dined hurriedly at a restaurant in which he had confidence and returned to Chatham Square. There he spent the evening making the rounds of the lodging houses in the neighborhood. He had heard at Mr. Pensa's office that an eleventh blue man had been admitted to the hospital, and before going home he wanted to make sure that no other victims had been overlooked. By midnight, having covered all the likely places and

having rechecked the downtown hospitals, he was satisfied. He repaired to his office and composed a formal progress report for Dr. Greenberg. Then he went home and to bed.

The next morning, Tuesday, Dr. Pellitteri dropped by the Eclipse, which was still closed but whose proprietor and staff he had told to return for questioning. Dr: Pellitteri had another talk with the proprietor and the cook. He also had a few inconclusive words with the rest of the cafeteria's employees—two dishwashers, a busboy, and a counterman. As he was leaving, the cook, who had apparently passed an uneasy night with his conscience, remarked that it was possible that he had absent mindedly the salt can on the stove from the one that contained saltpetre. "That was interesting," Dr. Pellitteri told me, "even though such a possibility had already occurred to me, and even though I didn't know whether it was important or not. I assured him that he had nothing to worry about. We had been certain all along that nobody had deliberately poisoned the old men." From the Eclipse, Dr. Pellitteri went on to Dr. Greenberg's office, where Dr. Gettler's report was waiting.

"Gettler's test for methemoglobin was positive," Dr. Greenberg said. "It had to be a drug now. Well, so far so good. Then we heard from Pensa."

"Greenberg almost fell out of his chair when he read Pensa's report," Dr. Pellitteri observed cheerfully.

"That's an exaggeration," Dr. Greenberg said. "I'm not easily dumfounded. We're inured to the incredible around here. Why, a few years ago we had a case involving some numskull who stuck a fistful of potassium-thiocyanate crystals, a very nasty poison, in the coils of an office water cooler, just for a practical joke. However, I can't deny that Pensa rather taxed our credulity. What he had found was that the small salt can and the one that was supposed to be full of sodium nitrate both contained sodium *nitrite.* The other food samples, incidentally, were O.K."

"That also taxed my credulity," Dr. Pellitteri said.

Dr. Greenberg smiled. "There's a great deal of difference between nitrate and nitrite," he continued. "Their only similarity, which is an unfortunate one, is that they both look and taste more or less like ordinary table salt. Sodium nitrite isn't the most powerful poison in the world, but a little of it will do a lot of harm. If you remember, I said before that this case was almost without precedent—only ten outbreaks like it on record. Ten is practically none. In fact, sodium nitrite poisoning is so unusual that some of the standard texts on toxicology don't even mention it. So Pensa's report was pretty startling. But we accepted it, of course, without question or hesitation. Facts are facts. And we were glad to.

It seemed to explain everything very nicely. What I've been saying about sodium-nitrite poisoning doesn't mean that sodium nitrite itself is rare. Actually, it's fairly common. It's used in the manufacture of dyes and as a medical drug. We use it in treating certain heart conditions and for high blood pressure. But it also has another important use, one that made its presence at the Eclipse sound plausible. In recent years, and particularly during the war, sodium nitrite has been used as a substitute for sodium nitrate in preserving meat. The government permits it but stipulates that the finished meat must not contain more than one part of sodium nitrite per five thousand parts of meat. Cooking will safely destroy enough of that small quantity of the drug."

Dr. Greenberg shrugged. "Well, Pellitteri had had the cook pick up a handful of salt—the same amount, as nearly as possible, as went into the oatmeal—and then had taken this to his office and found that it weighed approximately a hundred grams. So we didn't have to think twice to realize that the proportion of nitrite in that batch of cereal was considerably higher than one to five thousand. Roughly, it must have been around one to about eighty before cooking destroyed part of the nitrite. It certainly looked as though Gettler, Pensa, and the cafeteria cook between them had given us our answer. I called up Gettler and told him what Pensa had discovered and asked him to run a specific test for nitrites on his blood samples. He had, as a matter of course, held some blood back for later examination. His confirmation came through in a couple of hours. I went home that night feeling pretty good."

Dr. Greenberg's serenity was a fugitive one. He awoke of Wednesday morning troubled in mind. A question had occurred to him that he was unable to ignore. "Something like a hundred and twenty-five people ate oatmeal at the Eclipse that morning," he said to me, "but only eleven of them got sick. Why? The undeniable fact that those clever old men were made sick by the ingestion of a toxic dose of sodium nitrite wasn't enough to rest on. I wanted to know exactly how much sodium nitrite each portion of that cooked oatmeal had contained. With Pensa's help again, I found out. We prepared a batch just like the one the cook had made on Monday. Then Pensa measured out six ounces, the size of the average portion served at the Eclipse, and analyzed it. It contained two and a half grains of sodium nitrite. That explained why the hundred and fourteen other people did not become ill. The toxic dose of sodium nitrite is three grains. But it didn't explain how each of our eleven old men had received an additional half grain. It seemed extremely unlikely that the extra touch of nitrite had been in the oatmeal when it was served. It had to come in later. Then I began to get a glimmer.`Some people sprinkle a little salt, instead of sugar, on hot cereal. Suppose, I thought, that the busboy, or whoever had the job of keeping the table salt shakers filled, had made the same mistake that the cook had. It seemed plausible. Pellitteri was out of the office—I've forgotten where—so I got Food and Drugs to step over to the Eclipse, which was still under embargo, and bring back the shakers for Pensa to work on. There were seventeen of them, all good-sized, one for each table. Sixteen contained either pure sodium chloride or just a few inconsequential traces of sodium nitrite mixed in with the real salt, but the other was point thirty-seven per cent nitrite. That one was enough. A spoonful of that salt contained a bit more than half a grain."

"I went over to the hospital Thursday morning," Dr. Pellitteri said. "Greenberg wanted me to check the table-salt angle with the men. They could tie the case up neatly for us. I drew a blank. They'd been discharged the night before, and God only knew where they were."

"Naturally," Dr. Greenberg said, "it would have been nice to know for a fact that the old boys all sat at a certain table and that all of them put about a spoonful of salt from that particular shaker on their oatmeal, but it wasn't essential. I was morally certain that they had. There just wasn't any other explanation. There was one other question, however. Why did they use so *much* salt? For my own peace of mind, I wanted to know. All of a sudden, I remembered Pellitteri had said they were all heavy drinkers. Well, several recent clinical studies have demonstrated that there is usually a subnormal concentration of sodium chloride in the blood of alcoholics. Either they don't eat enough to get sufficient salt or they lose it more rapidly than other people do, or both. Whatever the reasons are, the conclusion was all I needed. Any animal, you know, whether a mouse or a man, tends to try to obtain a necessary substance that his body lacks. The final question had been answered."