From Oysters to After-Dinner Mints: The Role of the Early Food and Drug Inspector

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In 1899, twenty years after the first broad food and drug bill had been introduced into the national Congress, and nearly seven years before that august body would enact such a national law, the secretary of the Massachusetts State Board of Health, Samuel W. Abbott, delivered a lecture. He told the American Public Health Association about his state's sixteen years of experience in food and drug inspection, in his address defining the difficult duties of the inspector, the "collector of samples."

The demands placed upon this official, Abbott said, are necessarily complex. Primarily, he has authority to travel throughout the State . . . visiting the different cities and towns, and to collect by purchase such articles . . . as are most liable to adulteration. He should keep a vigilant eye upon the markets with a view to detecting the appearance of new and unexpected forms of fraud and adulteration, and should at once report any such matters to the general director. While in order to be a good collector it is not necessary that he should in any degree usurp the functions of the analyst or chemist, he should, nevertheless, possess the faculty of keen observation such as is essential to a successful detection, that is to say, he should use his senses, those of sight, smell, taste, and feeling, since by the employment of these powers in detecting

the gross appearances of articles of food, half the work of food inspection is often accomplished before submitting samples to the chemist. He should also be familiar with the laws relating to food and should possess the requisite knowledge and skill to make complaints at court, to examine witnesses, and prosecute cases before . . . judges.²

Few states had so rigorous a food and drug law as did Massachusetts or such diligent inspectors. Yet a recurring plaint by opponents of a national law related to the army of spies such a statute would loose upon the suffering food processor and grocery proprietor. There were “too many Pinkertons” already, one senator said, without enacting this “Trojan horse with a belly full of inspectors . . . to open our gates” for mischief. A congressman woefully predicted: “Federal spies under the guise of inspectors will swarm over the country in scores and hundreds and thousands until they become almost as great a pest as the flies and frogs and lice in Egypt.”³ Pro-law spokesmen denied that bureaucracy would burgeon. Harvey Wiley, chief of the Bureau of Chemistry of the Department of Agriculture, generalissimo of the forces pushing for a law, and most likely administrator of that law when Congress should finally act, hoped that state officials would bear the brunt of enforcing the federal statute. In a hearing before a House committee, indeed, Wiley wondered if even one new inspector would be needed.⁴

When the law did pass in 1906, Dr. Wiley relaxed this intention only slightly. The most important member of the first class of inspectors took the civil-service examination with the idea that, once certified, he would return to Kentucky, where he had been a legal officer helping enforce the state food law, to function there on both state and federal projects.⁵

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³. Senator William B. Bate of Tennessee, in Congressional Record, 52 Congress, 1 session, pp. 1368, 1371; Representative Champ Clark of Missouri, ibid., 58 Congress, 2 session, p. 929.
⁴. Hearings before the Committee on Interstate and Foreign Commerce of the House of Representatives on the Pure Food Bills, 59 Congress, 1 session, p. 342.
Instead, Wiley selected Walter G. Campbell to be chief inspector, the first step on a stairway Campbell climbed to the commissionership. Except for appointing Campbell and constantly conferring with him, Wiley, in the six years between the law's enactment and his resignation in 1912, had very little personal association with the new federal inspectors and received only a small amount of enforcement help from state officials. The "Old Man," as Bureau of Chemistry employees called him, who had spent twenty-three years battling to secure the law, now battled to establish his vision of how the law should be enforced. Much of this tussling turned out to be internecine warfare, differences in judgment between Wiley and, first, Secretary of Agriculture James Wilson, and, next, President Theodore Roosevelt. Wiley's categorical and outspoken opposition to the sulphuring of dried fruits, the chemical bleaching of flour, the adding of sodium benzoate to catsup and saccharin to canned corn, upset farmers whom Wilson hoped to keep happy and agitated processors who made contributions to the Republican party. More than a month before the first inspectors had been selected, Secretary Wilson had acted to hedge in Wiley's decision-making, by setting up a Board of Food and Drug Inspection in which Wiley could be outvoted. Then less than six months after inspectors began taking official samples Roosevelt created a Referee Board of Consulting Scientific Experts to double-check some of Wiley's most strongly held convictions, proven, the chief chemist believed, by his "Poison Squad" experiments. The law did not countenance, Wiley held, the frustrating devices established by his superiors, and by saying so in public he committed lèse majesté. State food and drug officials took sides, lining up behind either Wiley or Wilson, and bitterness erupted at their national meetings. These circumstances were not conducive to smooth collaborative enforcement of state and federal laws.

Preoccupied with big bombastic issues, Wiley paid scant heed to the routine run-of-the-mill aspects of enforcing the new law, except insofar

6. Dunbar, (n. 5).
as potential cases came before the tense Board of Food and Drug Inspection for decision. Wiley "was somewhat distant to us" remembered one of the inspectors; "he was an image more than a man."8

When the law was enacted, noted a Bureau of Chemistry annual report prepared under Wiley's successor, "almost no experienced inspectors were available in the entire country. They had to be created."9 The first civil-service examination was given in February 1907, and the twenty-eight inspectors appointed—two of them brothers—reported to the Bureau in Washington on June 3.10 The men came from divergent backgrounds: they included pharmacists, physicians, chemists, lawyers, teachers, and an x-ray technician.11 One of them, Frank B. Raynor, had been a member of the Coast Guard, given by Congress a Medal of Honor for rescuing several people from a stricken schooner in Long Island Sound, and offered by Roosevelt whatever federal job he might desire. He chose the position of food and drug inspector.

When photographed together, these early inspectors appeared dressed in a sober way.12 The Bureau laid down no rules on clothing, John McManus remembered, but the "tradition" developed that "men try to look neat"; "sloppy clothes were discouraged."13 "I marvel," he remarked, "at how I got through Savannah with a starched collar." Similarly, inspectors on the road stayed in respectable hotels that had facilities for receiving telegrams and that "would reflect credit on us... if we were asked, as we frequently were by the dealer, where we were staying." Nonetheless, prudence in spending while on the road was enjoined upon inspectors by Campbell in a 1910 set of instructions he prepared for them. The "average per diem expenditure for hotel accommodations," he decreed, ought "not to exceed $4."14

Creating the inspector force came almost casually. Inspectorial work was new to the Bureau, and the concept of the duties, as future commis-

11. Dunbar, (n. 5); McManus, (n. 8) interview.
12. Photograph of inspectors at Buffalo, July 12, 1909, filed with McManus, (n. 8) interview.
13. McManus, (n. 8) interview.
sioner Paul Dunbar remembered, ranged from "a mere sample grabber to a super Sherlock Holmes." Initially the former view seemed to prevail. When the first twenty-eight inspectors met in Washington in June 1907, their lessons in how to collect and mechanically prepare samples lasted just over a week. This instruction involved field experience. Dr. Willard Bigelow, Wiley's assistant chief, sent the trainees off two by two to gather samples, providing each man with a woven fiber shopping bag. They had to cross the Mall from C Street to Pennsylvania Avenue to reach the stores. Soon-to-be chief inspector Campbell and Frank Wollard found themselves at the end of the column. Campbell looked at his shopping bag, then winked at Wollard, who replied in kind. Without a word they tossed their bags under some convenient shrubbery and proceeded with their mission.

The law did not give an inspector the right to enter a factory or a store and examine the premises or peruse the records. As part of the basic training, Bigelow sought to develop in the new inspectors the trait of resourcefulness. In one instance he arranged ahead of time with his own neighborhood grocer to refuse to yield his records of interstate shipments when an inspector requested to see them. Inspector John Earnshaw was sent to the store. He tried to purchase an official sample, received a rebuff. Earnshaw left the store, apparently resigned to defeat. He went to a back alley and paid two young boys to put on a fierce fight at the rear door of the grocery. When all the clerks had departed to witness the contest, Earnshaw reentered the front door, found and copied the records he wanted. The Bureau preferred to such an extreme solution an ample application of tact. Wrote Walter Campbell in the early manual he prepared for inspectors: "Courtesy in the discharge of all official duties is enjoined."

After their brief Washington training, the inspectors' corps was split into two groups and taken by Bureau officials on tours of the main manufacturing cities of the East and Midwest to acquaint them with processing and packing methods and to reveal to them unsanitary conditions certain to lead to violative foods. By the end of June, the inspectors

15. Dunbar, (n. 5).
17. Dunbar, (n. 5) p. 95; McManus, (n. 8) interview.
18. Dunbar, (n. 5).
19. [Campbell], (n. 14) Instructions, p. 7.
had gone to their assigned locations in their respective territories, ready to launch their new careers.\textsuperscript{20}

The early inspectors did not maintain offices, and, except for those attached to the Bureau of Chemistry in Washington and to branch laboratories that had been set up throughout the country, usually spent only a little time at the headquarters with which they were associated. Mainly they were traveling about their assigned territories. In 1899 the Congress had given the Bureau the responsibility for inspecting imported foods, and within several years branch laboratories had been established at the ports of Boston, Philadelphia, Chicago, New Orleans, and San Francisco. When the 1906 law came into effect additional laboratories were created at Buffalo, Cincinnati, Detroit, St. Paul, Kansas City, Savannah, Galveston, Seattle, Portland (Oregon), Denver, St. Louis, Pittsburgh, and Omaha. Inspectors went forth from these centers and from sixteen other cities.\textsuperscript{21}

The travel routes taken by inspectors, the towns visited, the classes of samples secured, were planned in Washington by Chief Inspector Campbell. Yet, as Bigelow noted, the inspectors had “every opportunity for individual initiative.” They were not expected to concentrate exclusively on the “special problems” defined in Washington, but to note all aspects of food and drug manufacture and sale in their localities and to report violations of the law. “The efficient and complete enforcement of the law, therefore,” Bigelow observed, “depends to a large degree upon the originality and initiative of the inspectors.”\textsuperscript{22}

Bureau officials looking back from a decade and a half of experience agreed that, to begin with, “the law-enforcement work . . . was shaped to a not inconsiderable degree by the samples collected, more or less fortuitously, by the inspectors.”\textsuperscript{23} To be sure, adulteration and misbranding of both foods and drugs could be easily found wherever one turned. The Bureau’s famous \textit{Bulletin 13}, published in ten parts and 1400 pages over a span of sixteen years, had revealed the precise ways in which almost every article of food which reached the family dinner table could be modified by “creative” chemistry.\textsuperscript{24} Testimony to the same effect had

\textsuperscript{20} Wiley, (n. 10) “1907 Report,” p. 5.
\textsuperscript{21} Bigelow, (n. 5) pp. 322, 323, 326.
\textsuperscript{22} Ibid, p. 326.
\textsuperscript{23} Alsberg, (n. 9).
been presented before a number of Congressional committees. The law also defined as adulterated, foods that consisted "in whole or in part of a filthy, decomposed, or putrid animal or vegetable substance." So the new inspectors had a truly broad field in which to labor.

To make this point, and to demonstrate that the Bureau indeed kept its suspicious corporate eyes on what the public consumed, from oysters to after-dinner mints, in 1914 food and drug officials teamed a photographer, Arthur J. Olmsted, later a curator of photography at the Smithsonian, with inspector John Earnshaw. If somewhat staged, the series of photographs taken in Baltimore and Washington reveals actual scenes of food processing and vending, and makes vivid the milieu of the early food and drug inspector.

Earnshaw took samples of oysters from a boat at the dock. He inspected both an unsanitary shucking house and an unsanitary cannery. At the cannery he took samples of steamed oysters. Oysters posed a continuing problem, often polluted at the source, frequently contaminated later when "floated" in unclean water to increase their weight. Earnshaw inspected fish at what he considered a clean stand. He proceeded to the premises of a poulterer. Earnshaw observed the cleaning operation in a spinach cannery, and he inspected the retail sale of vegetables. Spices ranked toward the top of the list of food products constantly adulterated. Earnshaw sampled pepper, and investigated hand-packed spices. At a bakery, Earnshaw took a sample of flour, noted the condition of dough mixers, and observed the weighing of dough. At a creamery he sampled the cream, inspected the churn room, observed the packing methods, and took samples of the butter. Earnshaw proceeded to a wine plant.

25. For example, Adulteration of Food Products, Senate Report 516, 56 Congress, 1 session; Adulteration of Foods, Etc., Senate Report 1209, 58 Congress, 1 session; House Committee on Interstate and Foreign Commerce, Hearings ... on The Pure Food Bills, 59 Congress, 1 session.

26. The law appears in Ch. 3915, 34 U.S. Stat. 768.

27. Information supplied by Wallace F. Janssen of the Food and Drug Administration History Office, Rockville, Maryland.

28. Two albums, one titled "A Day with a U.S. Food and Drug Inspector" and numbered book 6, the other titled "Misc. Inspections" and numbered book 12, contain the series of some 125 Olmsted photographs of Inspector Earnshaw in action. These albums form part of Record Group 88, the Records of the Food and Drug Administration, Series GB, in the Still Pictures Branch, National Archives and Records Administration, Washington. I am indebted for prints of the photographs accompanying this article to Wallace F. Janssen and Suzanne White of the Food and Drug Administration History Office. The National Archives negative numbers of the photographs illustrating this article are given in the captions.

Inspector Earnshaw inspecting fish at a clean stand. NARA negative LS-C1529.
Inspector Earnshaw collecting samples in the bottling room of a winery. NARA negative LS-C 1547.
Inspector Earnshaw watching the handling of bananas on a banana boat. NARA negative LS-C1606.
Inspector Earnshaw observing the coating of bonbons at a candy factory. NARA negative LS-C1596.
Inspector Earnshaw inspecting street carts. NARA negative LS-C1545.
Inspector Earnshaw collecting samples of food stuffs at a market. NARA negative LS-C1458.
Inspector Earnshaw returning to the Bureau of Chemistry Building in Washington with his samples. NARA negative LS-CI 389.
one in which bulk wine was bottled; he visited the cellar, where wine was stored in huge barrels, and then collected samples from the bottling room. Returning to the docks, Earnshaw observed bananas being offered for import. He watched the packing of tea and the testing of coffee.

The end of our meal draws nigh. Earnshaw visited a pie bakery, observing the molding and the filling of crusts. He took samples at the freezer of an ice cream plant. The inspector sampled chocolates being coated by hand and observed bonbons receiving their coating. And Earnshaw inspected a jelly bean factory.

Earnshaw observed the casual way of selling produce and lunches to city dwellers, from farmers’ wagons and from street carts. He tracked milk from a country dairy to its pasteurization and bottling and then its urban delivery in a horse-drawn cart. Earnshaw collected samples from a retail market with many foods evident in bulk. He visited a fancy grocery. After his various labors, Inspector Earnshaw returned to the Bureau of Chemistry building in Washington, carrying his samples.

The laissez-faire sampling policy, as symbolized by John Earnshaw’s busy day, came to be viewed with hindsight as unfortunate. To quote the 1921 annual report: “As a result many regulatory problems were taken up prematurely before they had been studied sufficiently to formulate a final policy or to adequately present the situation to the Courts.”

Earlier annual reports reveal how diligently Bureau chemists and other scientists worked to upgrade methods of analysis in order to convince juries and judges of the adulteration existing in many of the random samples submitted by inspectors.

Sometimes the solution proved simple if ingenious. The Bureau became convinced that a Baltimore firm was adulterating black pepper with ground-up pepper shells, but doing so with such precision that the ash content did not exceed the standard the Bureau considered legitimate in pepper. How to demonstrate that any given shipment contained added pepper shells? A Bureau chemist in New York discovered that quinine could serve as a marker. Walter Campbell authorized its use. An inspector, visiting the warehouse of the firm furnishing the pepper shells, used a horse syringe to inject a quinine solution into many bags of shells. Inspectors then sampled shipments of pepper from the suspect company, and chemists analyzed for quinine. In time a large shipment of pepper revealed quinine, so it was seized. The claimant spice company intended a stubborn

30. Alsberg, (n. 9).
defense, based mainly on chemical evidence of ash content. But the inspector's testimony about his injection of the marker in the dark of night, and the chemist's evidence confirming the presence of quinine in the pepper, took the wind out of the spice company's sails. Despite the firm's protest at the unfairness of the Bureau's trick, the judge returned a verdict for the government.31

Much research also centered on tomato products.32 Many catsup makers insisted on the need for sodium benzoate to preserve the product and protect the public. Wiley believed good tomatoes and careful processing could yield excellent catsup without the need for a preservative. Sodium benzoate, he held, was used to disguise catsup made from rotting tomatoes and the scraps left over during tomato canning. His hypothesis was tested by contract in an Indiana factory. And Burton J. Howard of the Bureau's Microchemical Laboratory developed a mold-count method which permitted a judgment from the finished product of the quality of the ingredients that had gone into it. Howard proved to be a "star performer" at many a trial.

Inspectors as well as chemists applied their ingenuity to their crafts. From the very start they began to forsake the status of "mere sample grabber" and to acquire characteristics of Sherlock Holmes. William Wharton, beginning a distinguished career in New Orleans, received credit as the first inspector to develop evidence of law violations by factory inspection, instead of relying upon analysis by laboratory chemists.33 He used his inspectorial ingenuity to bring cases against firms adulterating coffee with chicory, making table wine out of grape pomace, and fabricating alleged Bourbon whiskey from molasses. Wharton and others thus quickly fulfilled the model of how an ideal inspector should perform, earlier projected by Samuel Abbott. Beginning in the Bureau as "second class citizens, servants of the lordly scientists," inspectors in time became the dominant figures in enforcement, gathering and de-

32. Dunbar, (n. 5); Young, (n. 7).
veloping evidence of violations which laboratory scientists then confirmed.\textsuperscript{34}

Despite the early tendency to undifferentiated sample grabbing, priorities did develop. Dr. Wiley’s strongly held convictions, his antipathy to sodium benzoate, for example, caused one set of special cases to emerge from among the total universe of possible violations. Another set of priorities arose from crises. Public health emergencies triggered crash campaigns.

The precarious state of the milk supply precipitated action the first year. The Bureau instituted numerous cases in which milk moved from dairy farms in one state to cities in another. Year after year such activity recurred, involving such places as Kansas City, Chicago, Cincinnati, and Boston.\textsuperscript{35} John McManus took part in a campaign to protect Boston’s milk supply. “The inspectors would go to a place in New Hampshire,” McManus stated, “and, as the milk was put on the . . . baggage car for Boston, the inspector would note the marks on the can and who was the shipper and, when he got to a stopping place or the place where his laboratory was, he would collect samples . . . and give them to the bacteriologist.”\textsuperscript{36}

Milk was mentioned as a product demanding special regulatory attention in thirteen of the Bureau’s sixteen annual reports issued from 1907 through 1922. Some sixty food products during these years warranted special investigations. Following milk in frequency of listing came eggs, either desiccated, canned, or decomposed in their original shells; vinegar; oysters; tomato products; stock feed; olive and salad oils; other canned vegetables.\textsuperscript{37} Products less frequently referred to could nonetheless prompt major crises, as with rotten canned salmon sold to the army and redirected to the civilian market at the end of the World War, and with ripe olives which carried the toxin producing botulism.\textsuperscript{38}

Food dominated Harvey Wiley’s concern, but he did not neglect drugs completely. On the drug side, outrageous patent medicines received the main attack: broad-gauge tonics with panacea claims, male-weakness products less frequently referred to could nonetheless prompt major crises, as with rotten canned salmon sold to the army and redirected to the civilian market at the end of the World War, and with ripe olives which carried the toxin producing botulism.\textsuperscript{38}

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\textsuperscript{34} Fred L. Lofsvold to author, April 16, 1986.


\textsuperscript{36} McManus, (n. 8) interview.

\textsuperscript{37} Bureau of Chemistry Reports, 1907-1922, in (n. 9) Federal Food, Drug, and Cosmetic Law.

remedies, and alleged "cures" for headache, narcotic addiction, cancer and other ailments. In a case involving an alleged cancer cure, the Supreme Court ruled that the words "false and misleading" in the 1906 law did not apply to therapeutic promises on the labeling. Congress sought to fill the gap with the Sherley Amendment. Devised with an eye to the Supreme Court's logic, the new act banned only those claims that were both "false and fraudulent.”

The first contested seizure under the Sherley Amendment involved William Radam's Microbe Killer. The invention of a Texas gardener, fascinated but alarmed by the germ theory of disease, this nostrum was promoted to vanquish all germs, hence to eliminate all disease. The sick need not even consult a doctor for diagnosis. Radam's trademark for his highly profitable invention showed a man in a business suit wielding a mighty club labeled "Microbe Killer" to threaten a skeleton, arms raised in futile self-defense. Bureau of Chemistry officials, knowing that a potion composed of 99.381% water plus a dollop each of hydrochloric and sulphuric acids and red wine, could not banish all disease, seized 539 boxes and 322 cartons of the Microbe Killer. After protracted legal action, a court condemned the nostrum to destruction. "It was taken from the warehouse," an inspector in St. Paul wrote in 1913, "the cases broken open and the bottles and jugs smashed and the cases and cartons were burned." Dr. Wiley's successor as Bureau chief, Carl Alsberg, launched a determined campaign to squelch the most egregious Sherley Act violations.

Minimal attention was directed toward other drugs. This included an effort to halt the adulteration of crude drugs gathered in American fields and forests. Examples were oil of wintergreen and oil of sweet birch, the former worth $5 a pound, the latter $2 a pound, both adulterated with methyl salicylate worth 50¢ a pound. Wishing to analyze some

authentic oil of wintergreen so the results might be used in court testimony, the Bureau sent inspector John McManus to Pennsylvania to obtain it from the proprietor of an operating still. Soon thereafter McManus was told to secure a sample of oil of sweet birch.

"So, a chemist and I," McManus remembered, "went up to [northwestern] North Carolina and arranged with one of these distillers to make several pounds of [the] Oil. . . . We checked the bark as it went in, and then it was macerated in order to develop the enzymic action which would release or form the oil. Then it was distilled in a large, crude still. We stayed there all night in a lean-to to get some. We got about six pints, which I think we paid for. I recall the chemist was kind of nervous about the mountain people. He had heard stories about them so he brought an old pistol with him and put it under his pillow. In the morning, we were awakened by a pistol shot. One of the distillers had come in, seen the handle of the pistol, pulled it out from the guy's pillow, and shot it off to wake us up."42

The original group of twenty-eight inspectors had by 1913 become forty-four. The war had a devastating impact on the Bureau of Chemistry manpower. In two years staff turnover, including men leaving for military service, amounted to 72%. In 1920 two fewer inspectors sought to police the nation's food and drug supply than in 1913.43

But gains had been made. The 1906 law led to stronger state laws and better enforcement, and much of industry had voluntarily improved its processing behavior.44 Violations had become less crude, more sophisticated, requiring more painstaking efforts to detect by both Bureau inspectors and chemists. Wiley's loose rein had been tightened under Alsberg, many of the key decisions being made by Walter Campbell. The new structural plan placed more responsibility in the hands of a more experienced field force. Using a timely military metaphor, the author of the 1921 annual report wrote: "The force in Washington then became the planning and supervising department of the bureau, its general staff, while the field force became the line or executing department." The field was split into three districts, Eastern, Central, and Western, each headed by a "competent executive, responsible directly to the chief of the bureau," and the district chief had all inspectors and chemists in his area

42. McManus, (n. 8) interview.
44. Bureau of Chemistry Reports for 1917 and 1921, in (n. 9) ibid., pp. 355, 369-374, 453-460.
under his command. Each district was subdivided into stations—there were sixteen in the nation—to which inspectors and chemists were assigned.

While inspectors retained considerable initiative, the pattern of their endeavors became regulated according to a more rational plan. Crises became structured, it might be said. Campbell, with continuing input from all knowledgeable sources, developed a project system, a set of priorities determined by exigencies in the marketplace. This, he believed, "enable[d] all units . . . to work in unison toward a common end with the minimum expenditure of time and funds." Built-in flexibility permitted adjustment when new hazards reared their heads.

When Wiley and Secretary Wilson had both retired, it became possible better to effectuate the plan Wiley originally had had in mind of state and federal cooperation in enforcing the laws of both. The Bureau set up an Office of State Cooperation and began to keep and report statistics on the help given by state and municipal food officials in applying the 1906 statute.

The new organization and plan of action, Bureau officials believed, stimulated both cooperation and a healthy competition among inspectors, "promoting a sound esprit de corps and efficient work." Inspectors were moved about frequently, came to take it for granted, and developed many friendships within the Bureau. If Wiley had been a figure loftily remote, though greatly admired, Campbell came to know his inspectors intimately, traveling among them, assembling them in meetings, sharing in the poker games that "became standard procedure in off-duty hours." Written reminiscences and oral history interviews reflecting the early days exude a great sense of élan, of dedication to and pride in the agency. Inspectors shared with their superiors gloom when a Bureau action met defeat in court, joy when victorious. They bemoaned weaknesses in the original law, yet knew that their efforts had brought marked improve-

45. Bureau of Chemistry Reports for 1914 and 1921, in (n. 9) ibid., pp. 322, 457-458.
46. Bureau of Chemistry Reports for 1915 and 1922, in (n. 9) ibid., pp. 331, 335, 501, 525-526.
48. Alsberg, (n. 9).
49. Dunbar, (n. 3).
50. Ibid., pp. 87—138; Linton, (n. 3); Linton, (n. 31); McManus, (n. 8) interview. Interviews with other inspectors, who joined the agency later than John McManus, support these generalizations. The interviews are filed in the History of Medicine Division, National Library of Medicine.
ments in the marketplace. While pleased by such progress, inspectors were realistic enough to share an awareness expressed by a later scientist: "There are times when a problem, long thought to be well in hand, comes back to plague us."51 Protecting a nation's food and drug supply is a worthy and unending task.

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