Dr. Harvey W. Wiley

on

Chemicals in Food

We reprint Dr. Harvey W. Wiley's story (from his Autobiography) of how he unsuccessfully tried to enforce the 1906 Pure Food Law as applied to coal tar dyes, the adulteration of flour with bleach chemicals, and the addition of habit forming drugs to soft drinks.

The commercial interests that were violating the law were too powerful politically to be disturbed by Dr. Wiley. In fact, they seem to be still too powerful to be disturbed, since the practices are still going on.

Flour is still being poisoned with bleach chemicals, in spite of such uncontrovertible proof as we offer in the way of the article we have added "BROT KRANKHEIT," in which we have omitted the author's name to avoid embarrassing him professionally. (Organized Medicine and organized Dentistry have ways of punishing their members who tell the truth where food racketeers are involved. The food racketeers apparently have both these organizations well in hand). (The dentists for instance are forced to avoid criticizing the fluoride campaign on penalty of losing their membership in their own Association; although Dr. McCay at Cornell has conclusively demonstrated that one part per million of fluoride in water causes rats to lose their teeth and develop diseased kidneys as they reach old age).

It would be a mighty feat to clean up the flour situation. Flour can only be wholesome if freshly ground and immediately made into bread. Fresh flour is as perishable as fresh milk, and no centralized milling could exist if the people were to get honest flour. It would have to be made in every community just as milk is supplied locally.

(We suggest you read the book GRAHAM ON BREAD, available from Lee Foundation for Nutritional Research, Milwaukee 1, Wisconsin, Price $1.50. The author analyzed the situation in 1835—it was bad then—worse today. 750,000 people a year are dying of heart disease, and we spend a billion and a half dollars a year on tooth repair, a primary factor being our low quality bread. (In India the incidence of tooth decay is ONE PERSON IN EIGHTY. Here our drafted men have an average of 15 cavities each).

The oils in flour become rancid in a few weeks. These rancid oils are carcinogenic and destructive to liver cells. How much these toxic effects are enhanced by the bleach, Dr. X can only estimate in his article BROT KRANKHEIT, which we reproduce following Dr. Wiley's article.

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We quote below Pages 236 to 250
from the Book

"HARVEY W. WILEY–AN AUTOBIOGRAPHY"

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I began my public career without any idea of being quarrelsome and belligerent. But from my entry into public life I became a belligerent in, I think, the best sense of the term. I fought with all my power for what I considered to be right, and opposed with all the power at my disposal what I considered to be wrong. I do not claim that my judgment was unerring, but I am sure that those who have been associated with me will bear witness that upon the whole my judgment was fairly correct.

As I look back upon them it seems to me that all the great battles of my life were devoid of personal hatred or prejudice; and I feel that I had the good fortune to

be ranged on the side of right in every important contest I can remember. This feeling has given me courage throughout my career. I belong to that class of people who can be classed properly as cowards. I can not claim that my fighting qualities are due to any natural bravery. They have arisen from convictions, planted by the earliest teachings of my father and mother, that I must be certain I am on the right side whatever I do.

It could serve no good purpose to recount in detail the many battles over the enforcement of the Pure Food and Drugs Act. I shall mention only a few of the more outstanding and significant of the contests. In trying to make sure that I was right before going ahead, I performed numerous experiments on my poison squad, whose acquaintance the reader has already made.

Benzoate of soda became the bloody angle of attack on the Pure Food and Drugs Act. Those in opposition to the enforcement of the Act soon gave up their attack on me individually. They went to my superior officer. There they had great success. In the Department of Agriculture they secured the active cooperation of the solicitor, Mr. George P. McCabe, who had a powerful pull with Secretary James Wilson. He finally won over the secretary to the cause. Mr. McCabe was an ingenious general. His first effort to control the administration of the law over which, by the law itself, he had nothing to do whatever, was in the limitation of my authority as chief of the Bureau.

One morning when Mr. McCabe had gained complete control, about three months after the law had been in force, the secretary walked into my office with a young man, apparently about thirty-five years old. He introduced him as Professor F. L. Dunlap, late of the University of Michigan. He said: "I have just appointed Professor Dunlap as your associate. He will be acting-chief of the Bureau in your absence but will not be subject while you are here to your authority. He will report directly to me. His duties are to be those of secretary of a Board of Food and Drug Inspection which I have just organized. You are to be chairman of that Board, Dunlap is to be the secretary and the third member of the Board is the solicitor, Mr. George P. McCabe."

My feelings at this act of usurpation of authority may well be imagined. There was nothing in the food law which authorized the appointment of a Board of Food and Drug Inspection. The law provided in specific terms that all samples should be analyzed by the Bureau of Chemistry for the purpose of determining whether or not they were adulterated or misbranded under the Act. I considered that it was illegal to take this power away from the chief of the Bureau where the law had placed it. I saw the ulterior purpose of this move: to hamstring the Food and Drugs Act. This board performed its functions to perfection. I was a mere figurehead; the two other members voting together overruled my decisions constantly. In other words, the Bureau of Chemistry

was no longer the judge of whether an article was adulterated or misbranded. I soon found it impossible to bring any cases against certain classes of offenders, particularly the rectifiers and manufacturers of so-called patent medicines containing alcohol as the chief ingredient.

The opponents of the pure food law were of course highly elated when they found I had been eliminated from the functions imposed upon me by law. They were still nervous, however, about two questions: benzoate of soda and saccharin. The manufacturers of alum were extremely anxious respecting my attitude toward alum baking-powders. Accordingly, a delegation representing these interests visited President Roosevelt and told what serious damage and destruction were threatened to their industry if my opinion were carried into effect. They asked that some other authority be delegated to determine whether or not these bodies were injurious to health.

The morning following their visit to the White House Secretary Wilson, Solicitor McCabe and myself were summoned to the president's office to meet the delegation which had met him the day before. There were an attorney representing the interests of the Curtice Brothers and the Williams Brothers and also various other persons interested in these industries and in saccharin, headed by Congressman J. S. Sherman, subsequently vice-president of the United States. We were all seated

around the Cabinet table. President Roosevelt said to the spokesman of the party:

"I want you to repeat now what you told me yesterday. I have had the Secretary of Agriculture and Doctor Wiley come to listen to what you said." They were somewhat loath to repeat the accusations in our presence but upon the president's insistence did so. At that time the secretary was still on my side of the benzoate of soda question. After their story had been told, the president turned to Secretary Wilson and said: "Do you think benzoate of soda injurious?"

Secretary Wilson replied: "My chemist carried on experimental determinations on healthy young men and found it so and I agree with him."

The president then said to me: "Doctor Wiley, do you think benzoate of soda is an injurious substance when placed in food?"

"Mr. President," I said, "I don't think, I know."

Then turning to these protestants, striking the table with his fist a blow such as Dempsey might have given, he said: "You shall not put this substance in foods." The victory against benzoate of soda, so far as the president of the United States was concerned, was certainly won.

Mr. Sherman then interposed as follows: "Mr. President, benzoate of soda was not the only thing that we were protesting about. Also, you will remember, I mentioned saccharin. Last year," he continued, "my firm of

fruit packers saved four thousand dollars by using saccharin instead of sugar in sweet corn."

"Yes, Mr. President," I interjected, "and everybody who ate that corn thought they were eating sugar, whereas they were eating a substance which was highly injurious to health."

When I said this, President Roosevelt turned upon me, purple with anger, and with clenched fists, hissing through his teeth, said: "You say saccharin is injurious to health? Why, Doctor Rixey gives it to me every day. Anybody who says saccharin is injurious to health is an idiot."

Our victory was turned into ignominious defeat. The next day, by order of President Roosevelt, the Remsen Board of consulting scientific experts was appointed and to them were delegated most of the rights and privileges which the law had given the Bureau of Chemistry. The Pure Food and Drugs Act was virtually repealed by executive edict.

Of course I did not cease fighting for what I felt to be right, and it will be seen later in this account that my work in behalf of pure food outlived the Remsen Board. I have discussed at length and in detail the assaults that were made on the law, and on its enforcement by the Bureau of Chemistry, in my book *The History of a Crime against the Food and Drugs Act* (1929), and I need not duplicate that discussion in this record, which may well continue to be for the most part a recital of

the constructive accomplishments of my life and work.

The members of the Remsen Board were men eminent in their particular line of chemistry and physiology. Presumably they were men of ethical principles. Doctor Remsen himself claimed to be the discoverer of saccharin and received a medal from the Chicago Section of the American Chemical Society for that accomplishment. Whatever the attitude of this group of scientists may have been at the time of their appointment, it changed and they unconsciously became protagonists of every interest which I had opposed.

The press and public of the country were almost unanimously on my side of the question. They believed that the use of preservatives in foods was wholly unnecessary and always inimical to health. Criticism of the Remsen Board was universal except in certain trade papers devoted to the interests of adulteration. The daily press, the periodic press and the public were not slow to voice their indignation at the hamstringing of a law which had required over a quarter of a century's agitation to secure and which in the very infancy of its enforcement had been thus emasculated.

Although the Remsen Board was appointed to study the very same problems I had studied, they carefully abstained from conferring with me on any of the points which were in dispute. They were not averse, however, to imitating my plan of experiment. They organized three poison squads to be conducted on the general prin-

ciple of my own, but with one very remarkable exception. There was no control over the quantity of food which the patients ate. This was a fatal scientific error and opened the door to all sorts of false interpretation of data obtained.

An example of the evils the Pure Food and Drugs Act sought to remedy, and how I tried mightily to carry on its enforcement, may be cited in the "green peas" experiments. Sulphate of copper was used extensively in the greening of preserved peas and other naturally green vegetables. The canner knew that if sulphate of copper were added to these articles the green color which they possessed by nature did not fade in the canning process but was even intensified, and remained indefinitely. When these vegetables were served at the table they presented to the consumer the idea of extreme freshness, due to their vivid color.

I fed to my young men sulphate of copper in the quantities in which it was usually found in the green goods, and from that up to a considerably greater quantity. The conclusions I reached were the same as those I had found in the case of numerous such experiments: sulphate of copper was a harmful substance to put into foods and should be excluded under the Pure Food and Drugs Act. The result was that the ethical canners stopped putting this chemical into canned vegetables, and we can now sit down to dishes of preserved peas, beans, spinach or other green vegetables without danger

of being poisoned by the vividly green articles formerly served us. This was the only point on which the Remsen Board agreed with my conclusion. My results were reached three years before theirs, but they were not noted in their report.

Many states passed laws similar to the federal law, to give added protection to their citizens in the matter of foods and drugs. In Indiana the law specifically banned the use of benzoate of soda in food products. Two powerful food-manufacturing companies made a test case of this law. They brought suit in federal court, seeking to prevent the food commissioner of Indiana from enforcing this state law. The wisdom of the opposition forces in securing the appointment of the Remsen Board was justified by the direction of the Secretary of Agriculture that the members of the board, and the experts they had employed to conduct their experimental investigations, should attend the federal court at Indianapolis, or have affidavits prepared and sent to the court, favoring the overthrow of the Indiana law. All expenses were to be paid by the Department.

Indiana was anxious to have my testimony and that of my experts in rebuttal to the testimony of the Remsen Board and its experts. However, Solicitor McCabe issued an order forbidding any of the employees of the Bureau of Chemistry to testify in the case, and intimated that they could not be compelled to do so.

Mr. Floyd Robison, chemist of the Dairy and Food

Department of Michigan and *per diem* employee of the Bureau of Chemistry, went to Indianapolis and gave oral testimony as to the harmfulness of benzoate of soda, without the permission of the solicitor and consequently was summarily dismissed from the Bureau of Chemistry "for the good of the service." The state of Indiana, therefore, secured an order authorizing the taking of testimony in the case at Washington. On the court assembling in Washington, subpenas were issued for myself and my employees who were experts in the determinations of the so-called poison squad. I paid no attention to the order of the solicitor and gave my testimony in full. I instructed the other members of the Bureau when they were called on the witness-stand to say that they had been ordered by the Secretary of Agriculture, through the solicitor, not to give testimony. When this was done, the State of Indiana applied to the Supreme Court of the District of Columbia for an order compelling them to testify.

The above shows the extreme limits to which the Department of Agriculture was willing to go in order to support its own unholy position in regard to this matter. I may add that the testimony was all considered by the federal judge. The petitions of the companies were dismissed, and the right of Indiana to forbid the use of benzoate of soda in foods was maintained. The defendants carried the case to the United States Court of Appeals, and this high tribunal affirmed the decision of the

lower court! The case was then carried to the Supreme Court. Food adulterators were hard fighters in those days! But before the case came up for decision both companies withdrew from further contesting. Hard fighting must yield to the massed forces of public opinion and of right.

All this would seem to indicate that from the judicial point of view the case of the benzoate of soda interests was without merit. The collapse of this court campaign worked the end of the Remsen Board. It died a natural death a few years afterward and was followed to the grave by the anathemas of an outraged public and the moans of the food and drug adulterators.

CHAPTER TWENTY

Enforcing the Law Was No Picnic

As the coal-tar case and others prove; the American Chemical Society tenders me an enjoyable dinner.

SOON after the enforcement of the food law began, the question of coal-tar dyes in food came to the fore. The Bureau of Chemistry undertook an investigation into the effect of the dyes on the human organism. In order to make this investigation as complete as possible I employed Mr. Bernard Hesse, a noted chemist and particularly skilled in organic chemistry, to conduct a complete study of all the coal-tar dyes. The result of the studies and experiments led to a very obvious conclusion: there were few coal-tar dyes of good character; most of them were harmful.

To permit the use of such dyes as we found harmless or apparently so, a food inspection decision was published in which the permitted coal-tar dyes were described. It was required that all of the permitted dyes be examined by Mr. Hesse, and if they were found free from foreign substances and properly manufactured and prepared, a number was given to each batch of such dyes which followed them throughout all their use in food products. These dyes were known as certified dyes.

For many years Germany had controlled practically the whole output of dyes. She could readily undersell other manufacturers. Her great industrial centers at Essen, and in other near-by places on the Rhine, were amalgamated into one great body. This group had a trusted agent in the United States, Hugo Schweitzer by name. Schweitzer was highly educated and held in good esteem by his fellow chemists in this country. I regarded him as a particular personal friend.

The publication of the order relative to the coal-tar dyes was a great blow to the German product, and very soon Mr. Schweitzer came to Washington to see what could be done. He invited me to lunch with him. We discussed the ban on coal-tar dyes, and I explained to him as best I could the care with which we had considered these dyes and the standards of purity that would have to be met under the ruling. Doctor Schweitzer said to me:

"The Seventh International Congress of Applied Chemistry will meet in London in the spring of next year, 1909. It is anticipated that the congress will be invited to meet for its eighth session in the United States. I am in close touch with the chairman and the English chemists who are members of this association and I am aware that they are all anxious to accept this invitation which it is presumed will come from this country. I have considerable influence with the organizers of this congress, and its past presidents. Your ac-

tivities as a member of the congress have led to your consideration as the proper person to preside at the American meeting at the session of 1912. I now wish to say that I will be able to secure to you this very highly coveted office on condition that you abandon your position in regard to the introduction of coal-tar dyes into foods."

If the boiler of the Willard Hotel where we sat had exploded I could not have received a more dreadful shock. Rising in my place I said:

"Doctor Schweitzer, I did not know you invited me here to insult me. Good day, sir!"

The sequel of this interview is of interest. Through my activities as a member of this international organization I secured a resolution from Congress authorizing President Taft to invite the Eight International Congress of Applied Chemistry to meet in the United States in 1912. Mr. Elihu Root, secretary of state, issued a commission to me to carry the invitation to London and present it to the meeting. There were about fifty American chemists present and on the first day of the congress they met and nominated me for the next president. I had not sought the office, but appreciated the honor they planned to confer on me. I asked the Honorable Whitelaw Reid, our ambassador at the Court of St. James, to introduce the motion to select the United States as the place for the next meeting. He at first refused but agreed to make the opening address if I would

follow immediately and present the invitation. We did this and the vote was unanimous for the United States as the next meeting-place. But I was not elected president. Sir William Ramsay, president for that session, called me to his room and informed me that it had been decided that a chemist who was a manufacturer should be chosen, and that the committee had selected Dr. William H. Nichols for the honor. Afterward I learned that Doctor Schweitzer had come over several weeks before the session and had spent the whole time visiting the organizing officers and urging them not to appoint me as the next president! If that was revenge, he should have been satisfied. The meeting in the United States in 1912, owing to the ability, popularity and tact of Doctor Nichols, was one of the most successful that had ever occurred.

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