

# Expert Flatly Contradicts The Testimony of Dr. Harris

Professor George Bachman, professor of physiology in the Atlanta College of Physicians and Surgeons, and formerly a demonstrator of physiology in Jefferson Medical college, was put on the stand following Schiff.

By him the defense made a further attack on the deductions of Dr. H. F. Harris. He declared that the statements made by Dr. Harris amounted to guess work, according to his knowledge of the subject.

"What is your nationality, professor?" Mr. Arnold asked.

"I'm a citizen of Atlanta," replied the witness.

"I mean where were you born?"

"I was born a Frenchman," replied Dr. Bachman.

"Do you investigate chemistry as regards digestion?" Mr. Arnold then asked.

"Yes, I teach that subject."

"How long would you say from your knowledge that it would take to digest cabbage?"

"It takes about four and a half hours for it to pass into the intestines."

"Is it acted upon after that?"

"Yes, most of the action upon that substance comes after it has passed in to the small intestine."

"What acts on it there?"

"The pancreatic juice."

Mr. Arnold then had the expert go into a detailed explanation of the constituents of pancreatic juice.

**Might Take Much Longer.**

"Suppose the person does not chew the cabbage?"

"Then it takes longer for the juices to act upon it."

"Is there any regular rule that you will find the digestion of cabbage and bread governed by?"

"No, there are too many factors to be considered."

"Suppose a person had not thoroughly masticated the cabbage and pieces of it touched upon the opening from the stomach into the intestine, would not that close up this opening and prevent the passage out?"

"Yes, when a large, unchewed piece of food touches this opening it closes up and the food is kept longer in the stomach."

"Unless a chemist could know all about how many of these pieces had touched that opening and how often, he could not tell much about how long the food had been there, could he?"

"No, it would be guess work."

"How much of the cabbage is acted upon in the stomach?"

"The protein, which constitutes one and one-half per cent of the cabbage."

Showing the witness the samples of cabbage taken from the stomach of the dead girl, Mr. Arnold asked if the unchewed pieces would not have been sufficient to have caused a closing up of the passage to the intestines.

"Yes, they certainly would have, if they touched it," the expert replied. Mr. Arnold then drew from the expert the statement that when an undertaker drew out from the body one gallon of its liquids and injected a like quantity of formalin that the ferment of the pancreatic juice made it much harder to judge anything in regard to what had been done.

**Impossible to Form Opinion.**

"If you were to investigate a stomach and find wheatbread and cabbage, one gallon of the liquids of the body substituted by one gallon of formalin, no pepsin, 32 degrees of hydrochloric acid and practically nothing in the lower intestines, could you, or in your opinion, could any physician, hazard an opinion as to how long the food had been there?" asked Mr. Arnold.

"It would be impossible to form an opinion," replied the expert.

Mr. Dorsey here took up the cross-examination and asked the witness a number of technical questions as though trying to show whether or not he was expert as claimed by the defense.

"Where did you say you were born?" the solicitor first asked.

"In Alsace-Lorraine," Dr. Bachman replied.

"Are you German or French?"

"I'm of French birth and parentage," replied the physiologist, referring to Alsace-Lorraine as French, as Frenchmen the world over still do, despite the fact that it has been German territory since the Franco-Prussian war.

"How long have you been with the Atlanta College of Physicians and Surgeons?"

"This is my fourth year."

"Whom did you succeed?"

"Dr. Stewart Roberts."

"What is your work?"

"Physiological chemistry."

"Are you the head professor of your department?"

"Yes, I am."

"Well, professor, what is the chief principal in wheat bread?"

"Starch," replied Dr. Bachman.

"What is the chief ferment in saliva?"

"Ptyalin is the chief ferment."

"What is amidulin?" the solicitor next asked.

"I never heard of it," replied Dr. Bachman.

"You mean to say that you, an expert on this subject, never heard of amidulin?" queried the solicitor.

"No, I never heard of it, and you can't find it in any dictionary," replied the physician stoutly.

"You mean to say that you never saw it in a dictionary or medical book?" the solicitor repeated.

"I certainly do, and no other physician ever did."

Webster's dictionary gives the definition of amidulin as soluble starch, and according to the solicitor it is one of the stages through which starch passes while in process of digestion.

"Well, you never heard of amidulin, did you ever hear of erythro-dextrin?" asked the solicitor.

**Press Table in Despair.**

By this time the press table had thrown up the sponge and was ready

to retire from the ring. The official court stenographer came to the rescue by asking for help, and after that the questioning went on with Solicitor Dorsey asking Dr. Bachman if he had ever heard of half a hundred substances, each with a name that would floor a Welchman, but the solicitor spelled out each word and Dr. Bachman wrote it down on a tablet. Even the expert had to hear some of them pronounced in medical parlance or at least spelled out before him before he could grasp what it was.

When erythro-dextrin had been made intelligible to everybody concerned, Dr. Bachman asserted that he was familiar with it.

**More Jawbreakers.**

Solicitor Dorsey could not be downed by that, but, consulting a paper before him, fired "achro-dextrin" at the witness.

After the court stenographer had given another groan and the word had finally been written at the press table, the witness assured his interrogator that he was thoroughly familiar with the gona and habitat of "achro-dextrin," and the solicitor turned to other subjects.

"With the stomach perfectly normal, how far down do you get a reaction for starch?" he next asked.

"You get it next down."

"When?"

"As soon as it gets there," replied Dr. Bachman.

The expert then stated that all forms of soluble starch may be found at the same time.

The solicitor then asked a number of questions about the different colors obtained by tests of the contents of the stomach, and, according to his authority, Dr. Bachman was right in all but one answer, where Mr. Dorsey contended that a purple color should result, and the medical man contended that the test would show up red.

"Doctor, in examining a healthy stomach, after the person had eaten an Ewald test breakfast, how long would it take to get a positive starch test?" the solicitor asked.

"You could get it all the time the starch was in the stomach."

"Would that be from the moment that the wheat bread got there?"

"Yes."

"Don't you know that the authorities all agree that it takes from thirty to forty minutes to get the positive starch test?" asked the solicitor.

"No; I don't know it; what is your authority?" asked Dr. Bachman.

"Well, you are on the witness stand, I'm not," retorted the solicitor.

"If you take out the contents of the stomach and find nothing in the intestines, what does that indicate about the degree of digestion?" Mr. Dorsey continued.

"Nothing at all."

**Rosser Takes a Dig at Dorsey.**

Mr. Dorsey then asked a number of technical questions regarding the Ewald test breakfast, but was interrupted by Attorney Rosser.

"I want just a minute, your honor," began Mr. Rosser.

"You can have it," replied the solicitor.

"That's very kind of you, young man," Mr. Rosser flung back at the solicitor, and then, continuing, addressing the judge: "Your honor, we are dealing with bread and fried cabbage, and I object to all this Ewald test breakfast, or what-ever-you-call-it business."

"I'm coming to the cabbage in a minute," replied the solicitor, "but the Ewald test breakfast is something that is a standard, and I can show a great deal by it."

"Doctor, did you ever experiment on boiled cabbage?" the solicitor asked the witness.

"No," replied Dr. Bachman.

"How do you know, then, how long it takes to digest it?"

"By the authorities whom I have studied."

"Is the Ewald breakfast test the standard?"

"Yes."

"When you find starch and no maltose you know that indigestion has not progressed fully?"

"Yes."

"Where do you first find maltose?"

"You might find it in the mouth."

"If you didn't find it in the mouth or in the stomach, how long would you say digestion had been going on?"

"I would not say. I have never seen maltose tested for after an Ewald test breakfast," replied the expert.

"A scientist might do it, mightn't he?"

"Ho might," replied the witness doubtfully.

**Samples Again Shown.**

Showing the witness samples of cabbage cooked as near as possible like those eaten by Mary Phagan and afterwards taken from the stomach of others, Mr. Dorsey asked:

"If these boiled cabbages had been in the stomach from 40 to 50 minutes, would you say this other cabbage taken from the girl's body had been there a longer or shorter period?"

"Oh, they're fri-l-l-ed cabbages and not boiled," interrupted Mr. Rosser, dragging out the word, "fried."

"Well, make it 'fried cabbage,' then," replied Mr. Dorsey, "but please answer the question, doctor."

"I couldn't say about it," replied Dr. Bachman.

Dr. Bachman then stated that after a meal of bread and water that 32 degrees of hydrochloric acid was found within half an hour, as the acidity increased, and again in an hour and a half, as the acidity lessened.

"Well, how long before you would find 32 degrees of hydrochloric acid after a meal of cabbages and bread?" the solicitor asked.

"I can not say; it has not been tested for."

"That's all," said Mr. Dorsey.

"Doctor, could anybody but Dr. Harris give an opinion on a matter like this?" asked Mr. Arnold.

"No; I never heard of anyone before who would do so," Dr. Bachman replied.

The physiologist was then excused and court adjourned for lunch.