

Title:Dr George M Niles Sworn In For The State, 194th To Testify
Category:LEO FRANK TRIAL BRIEF OF EVIDENCE

DR. GEORGE M. NILES, sworn for the State in rebuttal.

I confine my work to diseases of digestion. Every healthy stomach has a certain definite and orderly relation to every other healthy stomach.

Assuming a young lady between thirteen and fourteen years of age at 11:30 April 26, 1913, eats a meal of cabbage and bread, that the next

morning about three o'clock her dead body is found. That there are indentations in her neck where a cord had been around her throat, indicating that she died of strangulation, her nails blue, her face blue, a slight injury on the back of the head, a contused bruise on one of her eyes, the body is found with the face down, rigor mortis had been on from sixteen

to twenty hours, that the blood in the body has settled in the part where gravity would naturally carry it, that the body is embalmed immediately with a fluid consisting chiefly of formaldehyde, which is injected in the veins and cavities of the body; that she is disinterred nine days thereafter;

that cabbage of this texture (State's Exhibit G) is found in her stomach; that the position of the stomach is normal; that no inflammation of the stomach is found by microscopic investigation; that no mucous is found, and that the glands found under this microscope are found to be normal, that there is no obstruction to the flow of the contents of the

stomach to the small intestine; that the pylorus is closed; that there is every indication that digestion was progressing favorably; that in the gastric juices there is found starch granules that are shown by the color test to have been undigested, and that in that stomach you also find thirty-two degrees of hydrochloric acid, no maltose, no dextrin, no free hydrochloric acid -there would be more or less free hydrochloric acid in the course of an hour or more in the orderly progress of digestion of a

healthy stomach where the contents are carbohydrates, I would say that indicated that digestion had been progressing less than an hour. The starch digestion should have progressed beyond the state erythrodextrin in course of an hour. There should have been enough free acid to have stimulated the pylorus to relax to a certain extent, and there should have been some contents in the duodenum. I am assuming, of course, that it is a healthy stomach and that the digestion was not disturbed by any psychic cause which would disturb the mind or any severe physical exercise. I am not going so much on the physical appearance of the cabbage. Any severe physical exercise or mental stress has quite an influence on digestion. Death does not change the composition of the gastric juices when combined with hydrochloric acid for quite awhile. The gastric juices combined with the hydrochloric acid are an antiseptic or preservative. There is a wide variation in diseased stomachs as to digestion.

CROSS EXAMINATION.

There are idiosyncracies in a normal stomach, but where they are too marked I would not consider that a normal stomach. I wouldn't say that there is a mechanical rule where you can measure the digestive power of every stomach for every kind of food. There is a set time for every stomach to digest every kind of food within fairly regular limits, that is, a healthy stomach. There is a fairly mixed standard. There is no great amount of variation between healthy stomachs. I can't answer for how long it takes cabbage to digest. I have taken cabbage out of a cancerous stomach that had been in there twenty-four hours, but there was no obstruction. The longest time that I have taken cabbage out of a fairly normal stomach was between four and five hours. That was where it was in the stomach along with another meal. I found the cabbage among the remains of the meal four or five hours after it had been eaten. Mastication is a very important function of digestion. Failure to masticate delays the starch digestion. Starch and cabbage are both carbohydrates. I would

say that if cabbage went into a healthy stomach not well masticated, the starch digestion would not get on so well, but the stomach would get busy at once. Of course, it would not be prepared as well. The digestion would be delayed, of course. That cabbage is not as well digested as it should have been (State's exhibit G), but the very fact of your anticipating a good meal, smelling it, starts your saliva going and forms the first stage of digestion, and digestion is begun right there in the mouth, even if you haven't chewed it a single time. Any deviation from good mastication retards digestion. I couldn't presume to say how long that cabbage lay in Mary Phagan's stomach. I believe if it had been a live, healthy stomach and the process of digestion was going on orderly, it would be pulverized in four or five hours. It would be more broken up and tricturated than it is. I wouldn't consider that a wild guess. I think it would have been fairly well pulverized in three hours. Chewing amounts to a great deal, but there should be an amount of saliva in her stomach even if she hadn't masticated it thoroughly. Chewing is a temperamental matter to a great extent. One man chews his meal quicker than another. If it isn't chewed at all, the stomach gets busy and helps out all it can and digests it after awhile. It takes more effort, of course, but not necessarily more time. What the teeth fail to do the stomach does to a great extent. The stomach has an extra amount of work if it is not masticated. You can't tell by looking at the cabbage how long it had been undergoing the process of digestion. If that was a healthy stomach with combined acid of 32 degrees, and nothing happened either physical or mental to interfere with digestion, those laboratory findings indicated that digestion had been progressing less than an hour. I never made an autopsy or examination of the contents of Mary Phagan's stomach.

RE-DIRECT EXAMINATION.

The first stage of digestion is starch digestion. This progresses in the stomach until the contents become acid in all its parts. Then the

starch digestion stops until the contents get out in the intestines and become alkaline in reaction; then the starch digestion is continued on beyond. The olfactory act as a stimulant to the salivary glands.