

4 1-2 minutes. I walked from the same place in the pencil factory to the corner of Whitehall and Alabama Sts., and it took me three minutes and twenty seconds. I walked from the corner of Hunter and Broad Streets to the same place in the pencil factory and it took me one minute and a half.

PROF. GEO. BACHMAN, sworn for the Defendant.

Prof. of Physiology and Physiological Chemistry Atl. Col. Phys. & Surgeons. Bomar says it takes 4 hours and a half to digest cabbage. That's for the cabbage to pass from the stomach into the intestines. The gastric digestion takes 4 hours and a half. That is the time it is supposed to be in the stomach. More digestion occurs in the small intestine. The pancreatic juice helps digestion mostly in the small intestine. It consists of water in organic salts of which sodium carbonate is the most important, and a number of ferments. The ordinary time that it takes wheat bread to pass out of the stomach is not less than three hours. The time for a meal consisting of cabbage cooked for about an hour and wheat biscuit to pass out of the stomach depends a great deal upon the mastication of the food. The times given above have reference to the most favorable conditions. If the cabbage is not well chewed it would take considerably longer. It is impossible to tell exactly how long. There is no regular rules about how long such substances as cabbage and wheat bread will be found in a person's stomach. It depends upon too many different factors. Even in a healthy normal stomach the digestion might be arrested or retarded at any stage, as by strong emotion such as fear and anger or violent physical exercise, or in the state of mastication. The pylorus prevents passage of food to the intestines except when it is liquid and when there is free hydrochloric acid in the stomach. If solid food touches the pylorus it closes immediately and nothing passes for a time. If there were particles of cabbage in the stomach unchewed in which you can see part of the leaf, they are liable to keep the contents of the stomach in it seven or eight hours or longer by coming into contact with the pylorus. The liquid contents would pass into the intestines. The solid part would be retained for a very long time. The pylorus works mechanically, and unless a chemist knows to what extent those unchewed portions have affected the pylorus he can give no reliable estimate as to how long such food has been in the stomach. It's a guess. The acid in the stomach is hydrochloric, consisting of one atom of hydrogen and one of chlorine. It combines with protein; only one per cent. of cabbage is protein, and only about one per cent. of the cabbage is acted upon in the stomach; the balance is acted upon in the small intestines, and in the mouth, where digestion begins to a certain extent. The salts in the saliva act on the starch in the cabbage. This cabbage (State's Exhibit G) I don't think has been masticated at all so far as these pieces are concerned. There can be no doubt that these pieces would retard the digestion