nourishment drawn from the food is carried into every part.

The process by which the food is turned into matter fit to mix with the blood is called digestion. This process we will now briefly describe. The first process to which food is subjected on being placed in the mouth is mastication or chewing-the food being moved about by the tongue is moistened with a liquid called Saliva, which flows into the mouth from six glands called Salivary glands, which serve to effect cer-tain changes in the food, and to moisten the mouth and render swallowing easy. These glands pour saliva into the mouth even at the thought of food, and this is what is meant by "making the mouth water," these glands having much to do with the relish of food in a natural appetite. The food being mixed with the saliva and sufficiently chewed passes down the throat, thence into the passage called the gullet and thence into the stomach, which is like a bag, broader at the upper end than the lower. The opening through which the food enters is called the *Cardice Origoe*. All over the inner coating or mucous membrane of the stomach there are little cups or cells which hold and give out a peculiar fluid called *Gastric* juice; this juice is passed from these cells into the stomach the moment solid food enters -in a similar manner to that mentioned of the salivary glands. The stomach moves about during digestion with a churn-like motion that brings the food in contact with all its sides that the gastric juice may act upon it. The effect of this gastric juice is to dissolve the food in the stomach, which in a healthy state it does in from one to five hours, ac-cording to the kind of the food taken. When more food is taken than the gastric juice can act upon, or when the substance is hard to digest, then great distress is caused. The food is prevented from immediately passing out of the stomach by the closing of the narrow end called the *Pylorus*. This, however, opens from time to time, allowing as much as is dissolved to pass through. The food, when dissolved in the stomach, becomes a thick cream-like liquid called *Chyme*, which, passing out of the Pylorus, enters the first portion of the small intestines called the Duodenum. Into this canal a small tube opens, made up of two others, one of which brings bile from the gall bag, which has been gathered or formed in the Liver, and the other bringing pancreatic juice from the Pancreas. Both of these juices mix with the Chyme or dis-solved food, and not only cause certain changes in it but the bile assists in causing a peculiar motion of the bowels necessary for digestion-healthy bile, therefore, be-ing nature's true cathartic. From the inner coat of the intestines another fluid flows and mixes with the digested matter, thus turning the Chyme into what is called Chyle. This Chyle is therefore the proceeds of

digestion, containing all the nourishment obtained from the food. Now another set of vessels come into action, the duty of which is to absorb or suck up all the juices thus formed and carry them forward to be changed into new blood. The first of these vessels are called Lacteals, or milk vessels. They arise in the lining of the small intestines, being very small tubes with numerous glands. These Lacteals suck in the Chyle and pour it into a tube laying along the spine called the *Thoracic Duct*. Into this same tube another set of absorbing vessels, called Lymphatics, bring a watery fluid, called Lymph, which they have sucked up from various parts of the body, and then the mixture travels up the Thoracic Duct and is poured into a large vein on the left side of the neck, and from there it flows direct to the heart, the grand organ or force pump of circulation, passing through the first chamber or right Auricle of the heart, thence to the right Ventricle or lower chamber, thence through the pulmonary artery into the lungs, where the blood is purified by contact of the air we breathe; returning it goes to the left Auricle, is forced into the left Ventricle, whence it is urred through the Aorta or great actern urged through the Aorta, or great artery, to all parts of the body, returning by the veins to the heart for another round. When all the nourishment has been taken from the Chyle, the waste matter passes through the colon, or straight intestine, down, through and out, as excrement; any retention of this excrement constitutes costiveness or inaction of the bowels, which is the cause of much suffering and disease.

THE BOWELS.

THE IMPORTANCE OF THEIR REGULAR ACTION.

The Bowels or Intestines begin at the lower orifice of the Stomach, and are about five times as long as the body is tall. The Bowels have a muscular coating and an inner mucous surface, filled with blood vessels and secreting glands. The food is pushed along by the spasmodic muscular contractions. A limited form of digestion is carried on in the Bowels, the bile and pancreatic juice changing the starch into sugar and aiding in the digestion of fats. If nerve power is lost in the absorbing glands of the Bowels, a bad assimulation of the food occurs, resulting in diarrheea and other irregular action.

CONSTITATION. — When the worn-out or effete matter is retained in the bowels beyond the time of its natural exputisor the absorbents carry the poisonous fluids and foul gases into the circulation, resulting in serious blood poisoning, with a general derangement of all the organs; piles and often fistula and other painful troubles occur. Fevers are liable to set in, or ill health generally prevails, for there can be no