

painful disease in the horse. After the food is acted upon by the juices in the stomach it changes into what is known as chyme, which pass into the bowels.

**The Bowels.**—They are divided into two parts—the large and small. The small bowels are seventy-two feet in length and about one inch in diameter, and are made up of three coats, the same as the stomach. The serous coat on the outside contains small glands which secrete an oily material that lubricates the outside of the bowels, which comes in contact with the inner walls of the belly, so as to prevent friction when the bowels are being jolted around in the belly. The muscular coat, made up of muscular fibres, is situated between the other two coats, the same as in the stomach; its action is to contract the bowels, giving it motion to carry the food on through them. The mucous coat is a continuation of the mucous coat of the stomach. Along this coat are found small glands known as villi and lacteal; these are to absorb the nourishment out of the food as it passes along through the bowels and pours it into the blood. This long bowel is found to be attached on the upper side to what is known as the mesentery, which is attached above to the back-bone, and can be seen in any of the smaller animals upon examination. About six inches from the stomach, in the bowels, are found two openings, one for the hepatic duct, which is a tube used to carry the bile from the liver to be poured in on the food as it passes through the bowels. The other hole is for the duct of the gland known as the pancreas. It secretes a clear fluid known as the pancreatic juice, these act on the food in the first part of the small bowels, changing it into chyle. After this, the action of the rest of the bowels is to absorb the nourishment out of the food as it is passing back. The small bowels and stomach, when in a healthy condition, should be found empty one hour after food has been eaten. The small bowels are situated mostly on the left side just behind the stomach.

Large bowels have three coats the same as the small ones. The first part of the large bowels is known as the blind gut and is about three feet long; this is generally the first thing to fly out in opening a horse's belly. Its use is to act as a reservoir to hold the water and fluid parts of the food; this is where the water and fluid parts are mostly taken up into the system. The next part of the large bowels is known as the large colon; it lays along the floor of the belly, is about nine feet long, and is doubled on itself three times. In this bowel the solid part of the food is found,