operations suggests that the disease is being recognized more readily, and that it exists far more commonly than has been supposed. In those communities where it has been diagnosed the number of cases is continually increasing. During the period from 1898 to 1905 eight or nine operations were done each year, while during the two years preceding 1908 75 operations were done, or about 38 each year. This represents an enormous increase in cases coming to operation.

The reports of the most complete and recent autopsy findings confirm the earlier post mortem records. The findings postmortem are almost always uniform, namely, a pyloric tumor of about the size of the end of the thumb, one inch by threequarters of an inch. The size of the tumor, of course, varies somewhat, but within very narrow limits. Adhesions have never been found about the tumor. Certainly this suggests that no inflammatory or primarily ulcerative process has been associated with the formation of the tumor. The tumor is oval in shape; its surface is smooth; it is firm, almost hard, resembling cartilage. The situation of the tumor is constant. at the pylorus. In the adult it is ordinarily somewhat difficult to determine the exact situation of the pylorus; necessarily in the infant this difficulty is increased. That William Mavo should have recently described a method for recognizing anatomically the adult pylorus suggests the difficulty of detecting it. In each and all of these cases of infantile stenosis there has never been any difficulty in locating the situation of the tumor at the pyloric end of the stomach. The normal pylorus may be difficult of recognition. The pylorus of the baby with a stenosis is never difficult to locate.

Normally the pylorus, like the intestine, has two layers of muscle fibre in its wall, an inner layer of circular fibres and an outer layer of longitudinal fibres. The microscopic examination of this pyloric tumor finds always present a hyperplasia of the circular muscular fibres. The longitudinal fibres are almost never changed.

Normally the mucous membrane lies in longitudinal folds in the pyloric portion of the stomach. These longitudinal folds are found enormously hypertrophied. The significance of these hypertrophied longitudinal mucous membrane folds lies in three facts—(1) that they may serve as plugs to the lumen of the

41.

.....

••