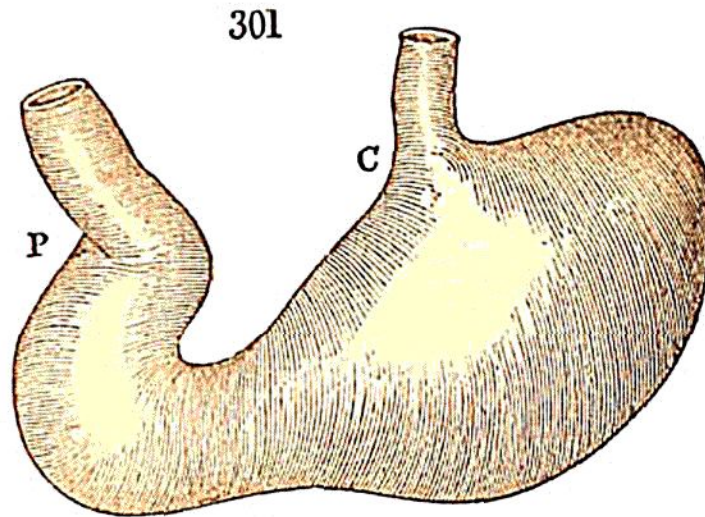


which this remarkable chemical change is induced on the materials it contains. The stomach is, in most animals, a simple sac, composed of several membranes, enclosing thin layers of muscular fibres, abundantly supplied with blood-vessels and with nerves, and occasionally containing structures which appear to be glandular. The human stomach, which is delineated in Fig. 301, exhibits one of the simplest



forms of this organ; *c* being the *cardiac portion*, or part where the œsophagus opens into it; and *p* the *pyloric portion*, or that which is near its termination in the intestine. At the pylorus itself, the diameter of the passage is much constricted, by a fold of the inner membrane, which is surrounded by a circular band of muscular fibres, performing the office of a sphincter, and completely closing the lower orifice of the stomach, during the digestion of its contents.

The principal agent in digestion, as far as the ordinary chemical means are concerned in that operation, is a fluid secreted by the coats of the stomach, and termed the *Gastric juice*. This fluid has, in each animal, the remarkable property of dissolving, or, at least, reducing to a pulp, all the substances which constitute the natural food of that particular species of animal; while it has comparatively but little solvent power over other kinds of food. Such is the conclusion which has been deduced from the extensive researches on this subject, made by that indefatigable experi-