

and sometimes blood, on which it feeds. Flesh-feeding animals have a simple bag for a stomach, and their food is easily and soon digested. Those animals, again, that feed on grass, which is of more difficult digestion, have three and more stomachs, into which the food successively passes after it has been masticated or chewed a second time in the mouth. This is the case with cows, sheep, deer, &c. Birds that feed on grain have first a sap-bag, or crop, into which the food enters, and remains for a considerable time, mixed with a juice somewhat like saliva; here it is softened and rendered moist, preparatory to its passing into the true stomach, or gizzard, which is an extremely strong muscular bag; in this, with the assistance of a number of sharp-pointed pebbles, which such birds always swallow, it is ground down and acted on by the gastric juice. This compensates for the deficiency of teeth in fowls. Crabs and lobsters have no teeth in their mouths; but in their stomachs will be found three or more teeth, which assist in grinding down the tough seaweed on which they feed. By domestication, the qualities of the gastric fluid may be so changed so that animals accustomed to live entirely on flesh will exist and thrive on a vegetable diet. This is the case with dogs and many birds.

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## PHYSIOLOGY OR NATURAL PHILOSOPHY.

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**ELECTRICITY** is a kind of attraction and repulsion of very light bodies alternately, by certain polished surfaces chafed or heated by rubbing or friction. Thus, glass, sealing-wax, amber and precious stones, attract and repel feathers, hairs, straws and other light bodies at considerable distances, as known by common experiments. Note.—If a glass tube be emptied of air, it loses its electrical quality.

**MAGNETISM** is another very surprising species of attraction, which that fossil called the load-stone is endowed with. Every one knows its strange power of attracting and repelling iron, and the virtue it communicates to the mariner's compass, whereby it is determined to point to, or very near the North Pole. Note.—The magnet loses its quality by being made red-hot in the fire.