

and, as it grew, improved yet more. A third appeared, and then a fourth, which was yet more nearly perfect, though the stem was thick, and the tentacula imperfect. The cleft was almost healed; and now a fifth head was formed quite perfect; and after it, as perfectly, a sixth and seventh head. All these were produced in fifteen months.

“The lower half of this specimen had been cut off four months after the separation of the stem. Its upper end bore: first, an abortive head; then secondly, one which advanced further in development; a third, much better; and then, in succession, other four, which were all well formed.

“The upper portion of this lower half of the stem now showing signs of decay, a portion was cut from its lowest part, and further manifested the reproductive power of the stem; for three heads were produced from the upper end of the piece cut off, and four from the lower end of the upper piece which had seemed to be decaying. In five hundred and fifty days this specimen had grown twenty-two heads.

“Now, I cannot but think that we have, in these instances of gradual recovery from the effects of injury, a type of that gradual return to the perfect form and composition, which are noticed in the higher animals. Our theory of the process of nutrition leads us to believe that, in the constant mutation of particles in nutrition, those elements of the blood, or of any structure that have been altered by disease, in due time regenerate or die, and are cast off or absorbed, and that those which next succeed to them partake, through the assimilative force, of the same morbid character; but that, every time of renewal, the new particles, under the influence of the germ-power, approach a step nearer to the perfect state. Thus, as it were, each generation of new particles is more nearly perfect, till all the effects of the injury or the disease are quite obliterated. Surely, in the gradual recovery of perfection by these polypes, we have an apt illustration of the theory—one which almost proves its justice.”—*Lond. Med. Gazette*, June, 1849.

5. *Microscopical Examination of the Contents of the Hepatic Ducts, with Conclusions founded thereon.* By T. WHARTON JONES, F. R. S.—In the contents of the larger hepatic ducts there are seen, on microscopical examination: 1st, the detached columnar epithelium cells of the ducts themselves; 2d, free oval nuclei, which appear to have been derived from cells of this kind; 3d, free round nuclei, apparently derived from the proper hepatic cells; 4th, minute granules, free or in amorphous flakes, globules of oil, and fragments of cell walls. In addition to these, in the smaller ducts, are found cells resembling those of the parenchyma of the liver, except in being usually paler, on account of the contained granules and globules being fewer and more minute. Having, by way of comparison, examined the contents of the pancreatic duct, and recognized in it, with its own columnar epithelium, the free nuclei and granular amorphous matter resulting from the disintegration of the secreting cells developed within the vesicles of that gland, the author considers that, from the analogy of the products of the secreting action in the two cases, an argument may be fairly drawn in favour of the analogy in essential nature between the cells of the hepatic parenchyma and the endogenous cells of the pancreas and other glands of ordinary construction. This deduction helps to confirm the view of the structure of the liver propounded by Dr. Leidy.—*Phil. Trans.*, 1848.

## ORGANIC CHEMISTRY.

6. *Sugar found in the Blood, Tissue of the Kidney, &c., but not in the Spleen and Pancreas, of a Diabetic Patient, who died suddenly.*—M. BERNARD lately examined the body of a diabetic patient, under the care of M. Rayer, who died suddenly on the third day after admission into hospital. The urine, drawn off while the patient was yet warm, contained a large quantity of sugar. The liver, misshapen, and much larger than in the natural state, contained also a large proportion. The kidneys were also enlarged; the left kidney weighed 245 grammes