Hanover found that the adult male, gives off hourly from 3.13 to 4.14 grs. of carbonic acid for every pound of bodily weight; a woman, 3.16; and two children 5.82 and 6.33 grs. The perspiration alone carries off but little of this gas, its amount is from 1-25th to 1-52nd of the quantity given off by the lungs, it chiefly gets rid of water. Barral, from experiments on himself, found his weight to be 104.8 lbs., and that in 24 hours he consumed 37.4 oz. of oxygen, and 43.4 oz. of carbonic acid. Relative weight of carbonic acid to that of oxygen, as 1 to 1.16.

Under the head of urine, he alludes to its containing fat in many patients suffering from consumption and other diseases, and then says—"In persons of weak constitutions or debauched habits, boiling the urine often throws down, not only carbonate of lime, but also albumen which do not disappear on the application of nitric acid." "And in a variety of diseases—such as inflammation, diseased heart and dropsy—the urine sometimes contains large quantities of albumen. Hence this phenomenon forms no exclusive sign of that affection of the kidney which is usually designated by the name of Bright's disease." This old truth we have often, painfully, seen overlooked in the diagnosis of albuminuria.

The spleen, supra renal capsules, thyroid and thymus glands are considered together as vascular glands. He admits that the anatomy of the spleen is so different as to assign it quite a different office but retains it as the functions of the whole remain almost unknown. He alludes to the varied consequences which have followed removal of the spleen and to two opposite theories now in vogue concerning its use, according to one of which it manufactures new blood corpuscles, according to the other it destroys or dissolves those which have been formed. In support of the last Beclard notices that the splenic vein contains relatively fewer corpuscles than the subclavian. Of the supra renal capsules he observes it is probable that certain compounds secreted from the blood undergo a peculiar elaboration within them, but nothing definitely is yet known. A like supposition may be held of the purposes of the thymus gland, the final destiny of which is its conversion into fat.

The present part ends with an unfinished description of nutrition, which embraces in 18 pages a great many topics, for, after taking up the blood, it treats of the tissues, principally the sclerous, of inflammation with its events, and lastly of reparation. These are discussed with too much brevity and have no particular merit to claim special attention.

With the foregoing extracts and abbreviations, we close our review, and in conclusion take leave to testify to Professor Valentin's personal examination of many of the richest mines of Physiology, for which he is entitled to much credit. His work has had the benefit of well cultivated talents, with excellently directed exertions, and exhibits internal evidence of designs ably conceived and judgments maturely executed; it is there-