

steak and porter, in order to enable the system to throw out that plastic exudation which is necessary for perfect ossific consolidation.

CASE III.—*Submaxillary calculus, 17 years in process of formation, spontaneously extruded.*

John O. B., æt. 41 years, thin conformation of body, and frequently subject to attacks of gastric and hepatic functional inactivity. When in Ireland 17 years ago, a nodule was first observed in the region of the submaxillary gland, about the size of a pea, slightly painful upon pressure, to relieve which blisters had been applied without any decided benefit. About a year from this date, a discharge, at first purulent, subsequently sero-purulent and sanguineous, took place from the mouth at the base of tongue and at a point nearly opposite the calcareous concretion. Occasionally the discharge would cease for a period of two or three weeks, during which arrest great pain was complained of, doubtless from the accumulation of morbid secretion and the closure of the excretory canals of the gland. As years rolled on, this nodule gradually increased in size, being quite movable, and retaining its hardness upon pressure. In October 1861, this same gland became the seat of acute inflammatory action which extended to the cheek and side of neck. Hot fomentations and poultices being applied, an opening formed externally, from which a quantity of purulent material escaped. Ten days afterwards, during the act of coughing, this calculus (Fig. I., weight 3 i. grs V.) was extruded from the mouth, after which instantaneous relief was experienced. To the present time neither has there been a return of pain nor swelling, and as to the functional activity of his system, a most marked change for the better, in relation to those organs which appeared more or less inactive during the formation of this calculus. Rokitsansky states that these calculi or concretions are "white, friable, and either round, oblong, cylindrical, or obovoid; in size varying from that of a millet-seed or pea to even that of a hazel nut. They are either solitary, or, if small, frequently very numerous; and they are composed of phosphate and carbonate of lime, held together by animal matter." Chambers on Digestion, p. 273, states—"Saliva is poured out from so many parts, that serious injury would not be likely to happen even if one source was quite impeded. Besides which, the glands which furnish it possess a great power of accommodating themselves to considerable change of circumstances, so that many of those addicted to the nauseous habit of spitting do not seem to suffer from it. Others, however, less robust do suffer, and I feel no doubt that the loss of saliva has something to do with their ailments." Of the latter class I would cite this case as an illustration. For many years a copious flow from the mouth during sleep of sero-sanguinolent saliva saturated his pillow, and for which he was unable to account. From the weakened state of his digestive functions during the retention of this calculus, and the almost immediate improvement after its expulsion, the deductions appear the more feasible.



FIG. I.

CASE IV.—*Piece of bone of unusual dimensions lodged in the lower part of the œsophagus; man aged 56 years; removal on the 5th day, recovery.*

Mr. P——, æt. fifty-six years, on the 11th May, 1862, while at dinner,