afterward becomes an essential part of the "embryo," as the latter extends itself in the form of a germinal layer and a vascular area, not only all over the surface of the yolk, but, in the case of the area vasculosa, through the whole vitelline mass, the latter becoming a great spongy network of bloodvessels, formed by the lateral apposition of the cells composing this large body. This vascular mass is finally drawn into the body, and, though gradually disappearing by resorption, remains for nearly six months after birth, as one of the essential portions of the organization of the freely moving animal.

Because a part is more or less separated from the main body, it does not follow that it should be considered as an appendage or an unessential portion of its structure. The bladder, at one time, hangs out in a saccular form as an allantois, extending far beyond its subsequent relations, and yet it is an organ of the embryo. No one would deny that the legs are an integral part of an animal because they extend beyond the bulk of the body; no one would hold that the young teeth, which, after a certain age, are discharged from their capsule, were not essentially a part of the body because they eventually disappear; no one would assert that the menses are not a characteristic physiological phenomenon of the animal system because they cease at a certain age; or that the ovaries, because they are resorbed at this period, were mere transient accessories of the organization. As if life were ever at a stand-still, a stereotyped machine, hewed and hammered out and put up to perform a certain uniform work, never changing from the time it is built till it falls to pieces by wear and decay! No; not so. We may truly say that life is embryonic all through; embryonic, in the sense that changes go on in the adult as in the young, and oftentimes quite as extensively as in the unborn or just born animal. From the moment that the egg is isolated, a new individual life commences; the animal potentially exists. Nor are we by any means to suppose, that the yolk, because it floats freely for a while, is a mere vitelline substance, and not an integral part of the embryo. Does not the blood float freely in the adult body? and does it not originate in the embryo as a loosened mass of yolk-cell mesoblasts, (Pl. 19, fig. 6,) separated from the sides of the channels, which, after having been hollowed out in the thickness of the intestinal layer, form bloodvessels? And yet, who will deny that this fluid

nutritive substance, in contradistinction to the "embryo," which is placed above it, the latter increasing in size as the former supplies the materials. (Comp. Part. I., Sect. 1, p. 181, and Sect. 6, p. 229.) This, we will admit, is true; but only in the same sense that the stomach, as an independent organ of the body, bears the means of existence to the whole organism. In both cases the nourishment is taken up by vessels through the process of endosmosis. The yolk is never appropriated by a process of digestion. There was a time in the history of Embryology when the terms "egg" and "embryo" were synonymous; we have to go back to it, now that we know how gradually the egg is transformed into a distinct embryo.