which swell the breast before lactation commences, and found in the breast after lactation has ceased until the gland acquires it wonted size. Curiously, too, we find cancer to have a marked tendency to crop up where the epithelium changes. Thus we find it at the lip where skin and mucous membrane meet; and also at the other extremity of the alimentary canal where skin and mucous membrane meet once more. Again, we see the tendency in the growth of cancer in the sulcus of the preputial fold. In the female we find cancer developing where the colummar epithelium of the uterus gives place to the squamous epithelium of the vagina.

Another curious clinical fact with which we are familiar is the different manifestations of gout in various persons. "The broad gouty persons suffer rather from articular gout, gouty disease of the heart and eczema, who are usually free from dyspepsia and nervous disorder of the heart, but who certainly are liable to bronchitis. The gouty man of thin flank is not so liable to articular gout, heart disease, or bronchitis, but is liable to nervous disturbances, skin trouble, and dyspepsia. Just as the external appearance or physique differs, so does the form of their gout, and also the treatment of each. The massive, solid, gouty folk might be fitly spoken of as the Norseman type, while the other slighter folk of highly developed nervous system, but lighter in the bone, might be classed as of the "Arab type;" of course there are blends" ("The Diseases of Sedentary and Advanced Life ") Now what relation do these morbid manifestations bear to early fostal devolopment? We find gout in the large massive people, fixing itself upon the outcomes of the mesoblast, the motor layer. The articulations suffer in the Norse gouty man, and the heart, which in some respects closely resembles a joint (Hilton on "Rest and Pain"), while in the persons of high nervous development, but lighter in the bone-the gouty Arab-disturbances of the nervous system and the skin rather are manifested ; both derived from the epiblast, the one from the corneal, and the other from the medullary division of that outer embryonic layer.

Valvular lesions of the heart cause also a reversion, or return to an earlier primitive form of heart. The original primitive heart consists of a pulsatile muscular sac emptying and filling rhythmically; a certain amount of blood flowing backwards as well as forwards at every systole. Gradually, valves are developed by which regurgitation on systole is prevented, and so the muscular power is economized. What do we see when these valves are injured and rendered incompetent by disease -a return to the condition of the primitive muscular sac. The heart becomes lowered or truly degraded, approaching the primitive form of heart. Deprived of the advantage gained by the development of valves, we look to hypertrophy of the

muscular wall to compensate the valvular injury, *i.e.*, in other words we hope to secure a heart of lower type. With the extent of the lesion, that is the injury to the valves, goes the general capacity of the body, and the completeness of the muscular compensation. If the lesion be a small one the muscular compensation is readily secured, and well maintained, the individual being little worse. But if the injury be a large one, so that the heart is greatly degraded, and approaches a valveless muscular sac, the muscular compensation is necessarily imperfect, and quickly wears out, the organism being seriously crippled.

Degeneration in the nervous structures gives us a striking example of dissolution as compared to evolution. The large cells and coarse fibres of the primitive brain centres developed at an early period of embryonic life are followed at a later period by "the finer cells and thin fibres of the accessory portion of the brain." When degenerative changes are afoot we see the nerve structures dissappearing in the inverse order of their appearance. Those which came late go first; while those which came early manifest greater resisting power. The vascular supply has something to do with this fact, the nerve centres of early development being more favourably situated as regards their blood supply, than those which follow.

From these illustrations we can see, as through a glass darkly, that disease is not merely morbid change, but to a certain extent, the undoing of evolution; a species of degradation or reversion being entailed thereby, or in other words, a dissolution, or return to more primitive and lower forms of life.

We can recognise the law of development acting within closer and more restricted limits in the spread of disease amidst races unprotected by experience, as for instance, in the spread of smallpox amongst aborigines, and phthsis among the South Sea Islanders. On the other hand, it is a notorious fact that the negro is practically safe against, and exempt from yellow fever.

The history of "Yellow Jack" throws a curious and lurid light upon the recognised clinical fact. Yellow fever hangs around the harbours frequented by slavers in the old days of the iniquitous slave Any one who has seen pictures of the way trade. the unhappy negroes were packed to economize space in the slave-ships can comprehend what must have been the miseries and the horrors of "the middle passage" in the heat of the tropics. Myriads perished on the way: and the slave ships reached the American shores charnel houses simply. Discharging the remnant of their cargoes-their wretched human freight-these ships were then thoroughly cleansed and scoured ; and the foul discharges of the ill-fated Africans were cast out into There they were deposited as a sediment the sea. at the bottom of these harbours; many of them