

under the microscope, we observe portions of vegetable matter (spiral vessels), and from these the ashes of incinerated fæces derive their potash. The earthy phosphates are found in great quantity; in rachitis they are so abundant, that the ashes occupy almost as much space as the fæces did before incineration. Of iron there is scarcely a trace; the ashes are white.

The consistence of abnormal fæces may be natural, increased or diminished.

1. In fæces of natural consistence we do not find much that is abnormal. In affections of the bones, and especially in rachitis, the earthy phosphates are present, as has been observed, in excessive quantity. After the use of ferruginous remedies (which however, usually produce a thinner, porridge-like consistence), and after hemorrhoidal bleeding, we observe a darker, blackish-green color, derived from sulphuret of iron. The ashes then have a rusty brown color, whilst the ashes of vegetable coloring matters are white. Analysis does not show whether the iron is derived from the chalybeate preparations, which have been taken, or from blood. In thin fæces albumen may be sought for.

2. *Increased consistence* is observed after the ingestion of carbonate of lime (in spring-water, or as chalk, &c.) in abstinence from drink, in chlorotic patients, &c.

3. *Diminished consistence*.—Before examination, the portions which are not quite fluid should be dissolved or suspended in water. We may distinguish.

(a) Watery Discharges.—These contain soluble salts, which do not ordinarily occur in the fæces, and usually some biliphæin; their reaction is sometimes neutral, sometimes acid; in children this is owing to the presence of lactic acid.

(b) Serous Discharges.—The fluid floating above the solid portions contains albumen, although the solid parts do not contain blood (in which cases these portions would be of a greenish or brownish-black color). They have an alkaline reaction derived from carbonate of soda, sometimes also from ammonia, as in typhus, and are generally poor in caprophæin. They occur in chronic diarrhœa, dysentery, typhus, and cholera.

(c) Bloody Discharges.—They are either of a bright red color, from the lowest part of the intestinal canal, and exhibit blood-corpuscles under the microscope; or are darker colored in proportion as the effusion has taken place higher up in the tube; if they are derived from the stomach they are black as pitch. Iron may be demonstrated in the ashes and albumen in the fluid portions.