

and again the time of examination is important, for if the examination is made during one of the periods of "improvement" the usual blood features of a pernicious anæmia may be absent.

The blood in pernicious anæmia flows more freely than usual, does not clot so readily, the red corpuscles do not tend to form roulcau, the specific gravity is greatly lowered (down at times to .025, normal 1.058) and the blood drop is generally but not necessarily pale and watery looking.

The red corpuscles always show a great reduction in their numbers, falling to 1,000,000 per cb. mm. or lower. The lowest reading I have yet met with was one of 692,000 (Mrs. J.) There is always marked poikilocytosis and irregularity in size, both large (macrocytes) and small corpuscles (microcytes) being common, the former generally in larger number. Nucleated red cells are almost a constant feature, being absent only when there are no compensatory changes (haematogenic) in the bone marrow. An absence of these forms is frequently detectable some days before a fatal issue, and is, I believe, to be looked upon as of grave omen. (Cases W. S., Mrs. R., J. R.) The usual form of nucleated disc present is the megaloblast (Ehrlich's gigantoblast), though occasionally normoblasts are noted. But normoblasts are decidedly more common in grave chlorosis or secondary anæmias, while megaloblasts are rare in these conditions though present often in leukaemias. Considerable stress is laid by most authorities on the presence of the megaloblast in the blood of pernicious anæmia.

The haemoglobin is always reduced in amount, but seldom falls to the same extent proportionately as do the corpuscles. The consequence is that the individual cells contain a normal or hypernormal amount of haemoglobin and stain deeper. The color index of the corpuscles is plus, not minus as is the rule in chlorosis and secondary anæmia. In the case above mentioned with 692,000 red cells, the haemoglobin reading was 18 per cent., giving a corpuscle color index of 1.3. During the remissions which are so common in the clinical history of this disease, we find that the corpuscles rapidly increase in numbers, while the rate of increase in the haemoglo-