

reagents precipitate at least two albuminous substances, viz., serum albumen and serum globulin. Nitric acid, for instance, throws down serum albumen, serum globulin, egg albumen and hæmi-albuminose, and, if carefully applied, an opacity may be obtained due entirely to anecin; on the other hand, urine may contain peptone when no precipitate whatever is obtained.

It may be assuming too much to say that the majority of physicians entirely disregarded the composite nature of precipitated albumen, but the fact remains that while the detection of coagulable matter in the urine has long been regarded of the highest diagnostic value, the profession is only now beginning to appreciate the probable importance in diagnosis and treatment of a careful investigation into the nature of this precipitate. Hitherto a detailed study of the proteids of the urine required too much time and demanded a knowledge of chemical manipulation not usually possessed by a practitioner, besides it had never been shown to be of sufficient practical importance to merit the expenditure of the requisite time and energy.

Physiological chemists have now determined that at least four distinct forms of albuminous matter may cause the symptom known as albuminuria vera, viz., serum albumen, serum globulin, hæmi-albuminose and peptone. In blood plasma we find at least two forms of coagulable matter, serum albumen and serum globulin; and in many cases of albuminuria we find, not one, but both of these substances present in the urine. They are not present, however, in the same proportion as in blood (viz., 1.5 to 1), nor are they found to exist in urine in proportion to their relative diffusibility. No constant relation exists. We sometimes find an albuminous urine when the coagulable matter is 90 or even 100 per cent. globulin; and, again, very many cases of albuminuria vera, in which, by the most careful testing, no globulin can be found.

The result of these observations has led to the recognition of the two conditions of *serinuria* and *globulinuria* as special forms of albuminuria.

Hæmi-albuminose and peptone are more difficult to detect than either of the preceding, and hence they have not been so