

or to the hair. The pigment occurs in two forms. (1) The solution throughout the cortical substance; (2) in granules varying in size arrangement and depth of color. The granules are located within and between the cells of the cortex. The layer surrounding the cortex and forming the external covering of the hair shaft is called the cuticle. It is the thinnest of the three layers, is glassy in appearance, and free from pigment. It consists of a layer exceedingly thin, scale-like cells that overlap one another like the shingles of a roof giving the surface of the hair a serrated appearance. From the foregoing description, it is evident that in a comparative study of scalp hair, the thickness of the hair can not be used as a criterion in the answer of the question, whether hair from the same scalp may be identified as such, inasmuch as hair varies very widely in thickness on the scalp of anyone individual. Hair from the same scalp may be identified as such with the aid of the microscope by the following points of identity: (1) The presence or absence generally of the medulla. Its appearance, whether it is continuous, or segmented, its relative width and the occurrence of air between the medullary cells. (2) The relative amount of the cortical pigment found in a soluble form and in granules. The arrangements, size and depth of color of the pigment granules. Their position in reference to the other layers of the hair. (3) The comparative thickness of the cuticle. That in order to make a comparative study of the scalp hair eighteen specimens of brown hair as similar to each other as can possibly be obtained were procured. Among these, three groups of two specimens were selected, the two specimens in each group appearing alike to the unaided eye. After a careful study under the microscope of the medulla, the cortex and the cuticle, scalp hair looking alike to the unaided eye showed points of difference under the microscope which enabled us to differentiate the specimens of hair from the scalp of one person from the scalp of another person. It is impossible without the aid of the microscope to determine any of the points of difference mentioned herein, and it is therefore impossible to establish with any degree of accuracy the identity of scalp hair without the aid of the microscope. Washing the hair with tar soap does not change the color of the