

powers of the elastic tissue in this specimen is very conspicuous. Both to resorcin-fuchsin and to acid orcein these fibres exhibit a marked resistance, but when Wasserblau-safranin is employed they show extensive elacin degeneration. The internal elastic lamina shows several breaks, as do some of the other heavy fibres. Some of the fibres are fibrillating and the fibrils formed by this process of splitting-off are, in addition, undergoing granular disintegration. No reaction is obtained with Schmorl's calcium test. (Plate XVII, Fig. 5 and 6.)

EXPERIMENT 7.—*Aorta after fifty-four days.* There is a more marked loss of staining power with the elective stains than in the earlier specimens. Fibrillation, with its accompanying granular disintegration, and condensation of the elastic fibres continue. The elacin reaction is marked, but Schmorl's test for calcium yields only negative results.

EXPERIMENT 8.—*Aorta after seventy-five days.* Extensive changes in the elastic fibres are discernible. With both resorcin-fuchsin and acid orcein there is a marked tendency to stain excessively and diffusely. The elacin reaction is present but not more marked than in the aorta after fifty-four days. With Schmorl's nitrate of silver test for calcium small dark areas are to be seen here and there in the course of some of the heavier fibres, including the lamina elastica interna. As the reaction is not marked there might be some doubt in stating that it is present at this date.

EXPERIMENT 9.—*Aorta after one hundred and six days.* There is marked hyper-tingibility of the elastic structure upon using the elective stains and there is the same heavy and diffuse reaction that is seen in the aorta after seventy-five days. With Wasserblau-safranin the reaction, though present, is less marked than in the previous specimen. Upon the application of Schmorl's test, however, there is seen an extensive calcareous deposition in the paths of the elastic fibres, especially of the lamina elastica interna. This deposition appears to be strictly limited to the fibres themselves—no deposit being seen except where granular disintegration has been marked. The sections cut with difficulty. (Plate XVIII, Fig. 7, 8, and 9.)

EXPERIMENT 10.—*Aorta after one hundred and fifty days.* The elastic structure is markedly condensed. The fibres show a hyper-tingibility similar to that found in the vessel buried one hundred and six days. The elacin reaction is absent, but Schmorl's test reveals a very complete impregnation of most of the elastic tissue by a calcium salt. Upon comparing one section of this aorta stained for calcium, with another stained with resorcin-fuchsin or with acid orcein, the extent of this impregnation is better appreciated. Difficulty was encountered in cutting sections of this vessel also. (Plate XVIII, Fig. 10 and 11, Plate XIX, Fig. 12.)

EXPERIMENT 11.—*Aorta after three hundred and three days.* This specimen exhibits a large portion of the elastic structure of the buried vessel. The remains are, however, extensively broken and are calcified, but the extent of calcification is not so marked as in the specimen of one hundred and fifty days. The elective elastic stains are taken excessively and diffusely. No reaction for elacin is obtained. (Plate XIX, Fig. 13, 14, and 15.)