

## GROUP B.—AORTÆ DISTENDED WITH AGAR-AGAR AND BURIED.

EXPERIMENT 12.—*Aorta after twelve days.* The aorta is found well imbedded in granulation tissue. The distending medium, agar-agar, is broken into several parts by invading bands of newly forming tissue. The muscle and connective tissues have apparently been absorbed, the elastic structure of the vessel wall alone remaining. As a result of the tension placed upon the vessel during the period of experimentation, there is a marked diminution in the number of fibrils and smaller fibres present. A fibrillation of some of the larger fibres occurs, and fragmentation, though not marked, is present. The reaction to resorcin-fuchsin and to acid orcein is apparently unaltered.

EXPERIMENT 13.—*Aorta after fifteen days; infected.* The effect of the continuous pressure is well shown in this specimen. Fragmentation, fibrillation and granular disintegration are present, the first not marked, the second and third more conspicuous. Very active cell invasion of the buried part is seen, and this no doubt accounts for the decrease in the peripheral fibrils. The tissue reacts well to the elective stains and no indications of elacin are found. In certain portions of the section the lamina elastica interna is found to be stripped from the subjacent structure and bulges into the lumen. This condition is caused by a collection of inflammatory cells beneath this membrane. In some places such as these the elastic fibres present an eroded appearance. In this specimen an additional factor has been infection. (Plate XVII, Fig. 1 and 2.)

EXPERIMENT 14.—*Aorta after twenty-one days.* A condition very similar to that described above is present. A decrease in the peripheral fibres and fibrillation are marked. The elective stains are well taken and there is no evidence of the presence of elacin. The fibres are not stretched to the same extent as in the other experiments. The distending medium is being rapidly absorbed, the lamina elastica interna shows numerous breaks and in places exhibits signs of erosion. Fragmentation though not marked occurs in other parts of the section.

EXPERIMENT 15.—*Aorta after thirty days.* A marked decrease in the quantity of elastic tissue is at once noticed. Fragmentation is marked and the fibres are split and in some places are represented by granular masses. The internal elastic membrane is extensively broken and shows plainly indications of erosion. Only small portions of the agar-agar remain unabsorbed. The whole structure exhibits hyper-tingibility, but when treated with Wasserblau-safranin yields no indications of elacin. There is a marked tendency of the newly forming tissue to compress or condense rather than to invade the elastic structure. (Plate XVII, Fig. 3 and 4.)

## GROUP C.—AORTÆ DISTENDED WITH PARAFFIN AND BURIED.

EXPERIMENT 16.—*Aorta after ten days.* The vessel is imbedded in a quantity of new fibrous tissue. The muscle and connective tissues of the buried vessel cannot be identified. The elastic fibres are well shown, however, by the elective stains. There is a marked absence of fibrils and a slight breaking of the outermost fibres.

EXPERIMENT 17.—*Aorta after twenty-seven days.* The elastic fibres alone