

APPENDIX.

THE PRESERVATION OF MATERIAL.*

The method commonly used in the preparation of material for dissecting purposes consists in first embalming the body with suitable preserving fluids; afterwards filling the arteries with a colored injection mass, so that they are more easily traced. The objects served by embalming are: (1) preserving the body from decomposition for a sufficient length of time to complete the dissection; (2) keeping the body as nearly intact as possible; and (3) having the organs in good condition for study. The point last-mentioned is an important one, since much depends on having the parts of the animal in such condition that they are easily and comfortably handled, and also easily observed. The desired results are accomplished, first, by introducing the preserving fluid through the bloodvessels, instead of by immersing the animal, as was formerly the practice; secondly, by using in the preserving fluid such materials as will leave the organs in a condition as near the natural one as possible and at the same time keep them moist and flexible throughout dissection.

A suitable fluid for the purpose is that recommended by Keiller† for the preservation of human subjects. The formula is as follows:

Formalin.....	1.5 parts
Carbolic Acid.....	2.5 "
Glycerin.....	10.0 "
Water.....	86.0 "
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	100.0

A convenient method of making up the fluid, especially when embalming the animals in numbers, is to prepare the mixture of formalin, carbolic acid and glycerin as a stock-solution, to be diluted for use by adding to each part of stock 6 parts of water. The amount required varies according to the size of the animal, the flow of the fluid in the vessels the length of time during which the animal is left under the action

*The methods here given apply only to the preservation of specimens for ordinary dissection, either singly, or in numbers for a laboratory course, with a few observations on the difficulties which are likely to be experienced. Especially in the matter of injections, the student who has acquired some knowledge of the vascular system will be able to make complete injections of the portal system and also satisfactory injections of the systemic veins, though the latter are somewhat more difficult on account of the presence of valves in the vessels. Finer vascular injections and injections of the lymphatic system according to the directions given in the anatomical textbooks may also be suggested.

†Keiller, W. "On the Preservation of Subjects. etc." (*American Journal of Anatomy*), Vol. II., 1902-3.