



FIG. 1.

used the apparatus was first filled with blood taken from another dog. With dogs weighing 20 kilos or more this was not done. Typical results obtained are shown in Table 1.

TABLE 1

Expt. No.	Blood level at start mg/100 cc		Grams removed in two hours	
	Urea nitrogen	Non-protein nitrogen	Urea nitrogen	Non-protein nitrogen
(1) Nephrectomized ..	237	270	3.74	4.11
(2) Nephrectomized ..	203	255	3.26	3.62
(3) Normal ..	14	22	0.23	0.31
(4) " ..	12	27	0.24	0.34

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### LUCITE NOT A SUBSTITUTE FOR CANADA BALSAM WHEN MOUNTING MICROSCOPE SLIDES<sup>1</sup>

LUCITE<sup>2</sup> is a crystal-clear methyl methacrylate polymer which has a refractive index nearly the same as glass and is readily soluble in dioxan. Dioxan<sup>3</sup> has proven useful as a dehydrating agent for the preparation of sections and objects to be mounted for observation with the microscope. Thus with the Lucite in dioxan solution it should be possible to mount the preparations as soon as they are dehydrated. In fact,

<sup>1</sup> From the Marine Biological Laboratory, Chemical Room.

<sup>2</sup> Formerly called Pontalite; manufactured by du Pont.

<sup>3</sup> H. W. Mossman, *Stain Tech.*, 12: 147, 1937.

the Lucite hardens rapidly and the mounts are firm enough for use in about an hour after they are mounted on a slide under a cover glass. After a time the Lucite dries and contracts and draws air bubble channels under the cover glass. When no cover glass is used, successful, stained smear preparations have been made.<sup>4</sup> Our own preparations, mounted in Lucite dissolved in acetone, amyl acetate, ethyl acetate or dioxan with no cover glass, show much less fading at the end of five months than those mounted under a cover glass.

Unfortunately, the Lucite dissolved in dioxan bleaches many of the more important stains used in microscopy which, in the order of least faded to completely faded, are the following: basic fuchsin, methylene blue, eosin, Heidenhain's iron haematoxylin, Ehrlich's haematoxylin, acid fuchsin and light green (all aqueous solutions or standard formulae). Dissolving the Lucite in other solvents (acetone, amyl acetate, ethyl acetate) did not prevent the fading. The decolorizing of the stained sections takes place in from a few days to five months. Furthermore, the sections are less well cleared than they are in balsam or damar. Clearing is very poor also when the sections are mounted with no cover glass, but the use of an immersion oil then clears the sections fairly well.

Lucite is unsatisfactory as a mounting medium for microscope slides for other than temporary use, because the Lucite decolorizes the stained sections and in drying forms air-bubble channels which spoil the preparation mechanically. When no cover glass is used the fading is much less rapid.

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<sup>4</sup> B. F. Skiles and C. E. Georgi, *SCIENCE*, 85: 367, 1937.

### BOOKS RECEIVED

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