

The dispersing tubes are thirty-five millimeters in diameter and twenty-two centimeters long, and are closed by No. 7 solid rubber stoppers. Their capacity is about 160 cubic centimeters, which permits eighty cubic centimeters of water to be used in dispersing. The sedimentation tube consists of a glass tube which fits into a glass cup by a ground joint. The cup is three centimeters high and the tube nineteen centimeters, and both are made from forty-millimeter tubing. The ground joint is fifteen millimeters in length, and if the tube is twisted firmly into the cup the apparatus will not leak, even after standing full of water for several days. A hole in a wood block is used for a support, but the cup can be made with a base so that it will stand of itself.

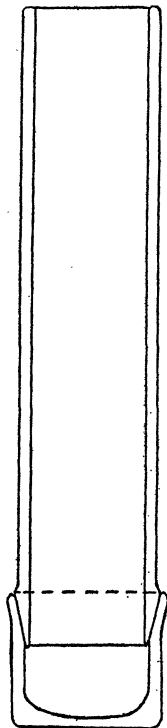


FIG. 1

The sediments are transferred from the dispersing tube to the sedimentation tube by removing one rubber stopper, inserting the dispersing tube into the inverted sedimentation tube, righting the whole apparatus, removing the other rubber stopper and washing with a stream of water. The silts and clays are decanted from the sedimentation tube, the cup in which the sands have collected is removed from the tube and the sands are readily washed out from the cup with a jet from a water bottle. The whole process is simple and very rapid. In fact, other processes involving decantation could probably be facilitated by a sedimentation tube of this type.

PARKER D. TRASK

PRINCETON UNIVERSITY

STOCK CULTURES OF AMEBA

In the course of experiments in this laboratory it has been necessary to maintain cultures of *Ameba*

proteus in stock. The writer endeavored to find a medium that made requisite a minimum amount of attention. The effort in this direction met with considerable success, as appears below. In view of the wide use of *Ameba* of the *proteus* type in biological research and elementary instruction in biology, a culture medium that is simple, reproducible and extremely reliable will be of general interest. The medium used is as follows:

| | | |
|-------------------------|-------|----------------------|
| NaCl | 0.1 | gr. |
| KCl | 0.004 | gr. |
| CaCl ₂ | 0.006 | gr. |
| H ₂ O | 1000 | cc (glass distilled) |

Two hundred to 250 cc of this solution is put into a finger-bowl or glass crystallizing dish of 8 or 10 cm diameter and to each of such dishes is added 4 or 5 grains of polished rice (any brand carried at the corner grocery is suitable). The cultures thus prepared are immediately seeded with fifty to one hundred amebas, covered with glass plates to prevent evaporation and entry of dust and then left, best in a dark cool place, to develop. Such cultures will produce a fine crop in from two to four weeks and so far in some thirty or forty cultures the writer has had only one or two failures. There are at present on the shelves of the laboratory, out of five that were set up as a test, three cultures one year old that have ample numbers of amebas; the other two died out in eleven months.

These five cultures during their existence have been deliberately neglected. No detritus was removed. Rice was added only when it was noticed that none was apparent in the culture. Water too has been added to compensate for evaporation with no attempt at regularity, say, on the average once a month. The temperature variation has been from 19 to 28° C.

In other words, the cultures have been subjected to as careless handling as if in the hands of a somewhat below par student assistant, but they have survived.

H. W. CHALKLEY

HYGIENIC LABORATORY,
U. S. PUBLIC HEALTH SERVICE

SPECIAL ARTICLES

THE CHEMICAL CONTROL OF SPLENIC CONTRACTION

THE behavior of the spleen in responding to different physiological requirements and the fact that this response occurs only when its nerve supply is intact¹ suggests control by some center. At times

¹ E. A. Schäfer and B. Moore, *Journ. Physiol.*, 20 (1): 1-50, 1896.

when there is an emergency call for hemoglobin, as in asphyxia, hemorrhage or severe muscular exercise, contraction of the spleen throws into circulation a large number of red blood cells, as many as one third the total number in the body.² When the period of stress is over the spleen relaxes and the excess red blood cells are withdrawn from circulation. The

² E. H. Starling, "Principles of Human Physiology," fifth edition, p. 820, 1930.