shown as set for a start at 3:30 P.M. on a Tuesday. The radial cursor is now rotated to a position such that its radial edge coincides with the time of the termination of the experiment as marked on the periphery of the inner disc. The integral number of hours elapsed is then read on the scale of the outer disc, picking out the proper day-circle by reference to the secondary cursor, while the added decimal portion is found from the marking at the end of the radial edge of the radial cursor where it crosses the scale around the periphery of the outer disc. In Fig. 1 the instrument is set for an experiment terminating at 5 P.M. If this is on the following Wednesday, then 25.500 hours have elapsed, while if it is on the following Monday, 145.500 hours have elapsed.

Owing to the way in which the graduations step outward as one goes around the successive day-circles, it is necessary to make an adjustment in the position of the secondary cursor for some computations. This adjustment may be made by following this rule: "When computing time intervals which terminate at a time located between midnight as shown on the inner disc and the zero radius of the outer disc, push the secondary cursor inward one day before selecting the day-circle from which the number of integral hours is read off. Otherwise have it set as directed above."

The writer's instrument is graduated to the nearest 5 minutes over an interval of 10 days, the scales being marked with india ink on heavy drawing paper cemented to the discs. If the discs were made of white celluloid and engraved by machine, no doubt the graduations could be made to the nearest minute or less, over an interval of as many days as necessary, depending on the size of the outer disc.

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GIEMSA PREPARATION FOR STAINING BLOOD FILMS

THERE have been many varieties of blood stains proposed, and each stain has its peculiar advantages. In a large proportion of clinical laboratories, where many blood films are stained daily, Wright's stain is generally found to be satisfactory and is relatively inexpensive. However, some laboratory workers prefer the more precise results obtained from other stains in the Romanowsky series. Giemsa's modification has been found to be very satisfactory as a routine blood-stain as well as for blood parasites. Its chief disadvantage is its cost.

For several years the writer has prepared blood films containing avian malarial parasites, using the Giemsa method exclusively. Ready prepared solutions of Giemsa generally cost about $12.00 per eight-ounce bottle. The cost of eight ounces of prepared Wright's stain, on the other hand, is but $2.85. This difference in price means a great deal to private laboratories and to many institutions. Some workers, even though preferring the Giemsa method, use Wright's stain regularly to reduce the expense involved.

The following method for preparing Giemsa stain, although not conforming to the usual technique suggested, has been found to be very satisfactory by the writer. The resulting stain costs about $3.25 per eight ounces and gives uniformly well-stained blood films. In laboratories where a great deal of stain is used the cost of Giemsa so prepared is little more than Wright's.

Azur II–eosin	3.0 gms.
Azur II	0.8 gms.
Glycerin (c.p.)	250.0 gms.
Methyl alcohol, absolute (neutral), acetone free	250.0 gms.

Dissolve the Azur II and Azur II–eosin in the methyl alcohol in an Erlenmeyer flask. Shake well for fifteen minutes, add the glycerin, shake for ten minutes and filter through a moderately fine grade of filter paper. Collect the filtered stain in a bottle and discard the undissolved residue.

There is generally quite a bit of stain that does not dissolve. This, however, seems to make very little difference in the character of the resultant stained blood films. Results have been equally satisfactory with human blood and avian blood. Malarial parasites are brought out sharply, with distinct differentiation of chromatin and cytoplasm.

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