

or in Van Giesen picrofuchsin. As an instance typical of the ease of use and reliability of the stain, a series of slides was stained for different lengths of time in a trial lot of this solution which contained only 10 grams each of ferrous and ferric alum, instead of the 20 as above described. The slides were then counterstained with Van Giesen picrofuchsin (5 minutes) in the usual manner. The slides stained 2 minutes were fairly satisfactory; those stained 4 minutes were nearly ideal; those stained 15 minutes could hardly be distinguished from those stained 4 minutes, and it was only when the staining was carried up to about an hour that the image showed signs of loss of detail from overstaining.

From these preliminary studies it is suggested that the combination of a high concentration of ferrous and ferric salts serves to maintain an oxidation reduction equilibrium in the solution which is far more suitable for the formation and preservation of the selective blue hematoxylin-iron salt than is either the ferrous or the ferric salt alone. It appears that the stain, above described, is highly selective. It is relatively insensitive to variation in staining time and may be used as practically a progressive stain with little or no differentiation. This differentiation, when required, may be done by time rather than by inspection. The solution is far more stable than either Weigert's or Janssens' hematoxylin, is easily prepared and does not require any aging. This stain has not given satisfactory results when used in contact with at least some metals, as, for instance, monel.

In conjunction with Dr. Ralph Lillie, of the division of pathology, a more detailed study of this stain is being carried on at this institute in order to more accurately define its properties. Even with the data above presented, however, the question is raised as to whether or not many, or possibly even all, of our current iron hematoxylin stains would not be substantially improved by substitution of a mixture of ferrous and ferric salts or some equivalent oxidation-reduction mixture for the ferric salts now in current use.

No studies have as yet been made on the action of this stain on such cell organs as mitochondria. These considerations will be left to a later date.

WILTON R. EARLE

NATIONAL CANCER INSTITUTE,
U. S. PUBLIC HEALTH SERVICE,
WASHINGTON, D. C.

"SPOTTING" SPECIMENS FOR CATALOGUE NUMBERS

ENAMEL spots for catalogue numbers on minerals and fossils have been superseded in this department for some years by spots of clear Duco cement. Applied direct from the tube, the cement is more convenient to handle than paint, and it hardens more

rapidly. Its surface takes india ink well from a pen, and the inconspicuous character of the cement will be especially appreciated when numbers must be applied to transparent crystals.

A. S. WARTHIN, JR.

VASSAR COLLEGE

THE CARE OF SKULLS AND SKELETONS OF SMALL ANIMALS

BEFORE shipping small skulls and skeletons, or before allowing them to be cleaned by dermestid beetles, it is usually desirable to dry them as completely as possible.

The automobile, probably now used by the majority of collectors, makes an ideal desiccating machine. Small osteological specimens fastened under the hood by wire, in the hot air stream from the fan, become perfectly dry in a day or two, even in damp weather, if the automobile receives ordinary use. A minimum of preliminary cleaning is necessary, and brains need not be removed from skulls up to the size of a rat's. Enough muscle and tendon may be left on small skeletons to hold the bones firmly together. Fly eggs fail to hatch, and maggots quickly die under this treatment.

No claim to originality is made for this method, but it has proved so useful that it seems worthy of dissemination.

RICHARD M. BOND

NATIONAL PARK SERVICE
PORTLAND, OREGON

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- The Romance of Exploration and Emergency First-Aid from Stanley to Byrd*. Pp. 160. Illustrated. Burroughs, Wellcome, New York.
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- TOWNLEY, SIDNEY D. and MAXWELL W. ALLEN. *Descriptive Catalog of Earthquakes of the Pacific Coast of the United States, 1769 to 1928; Bulletin of the Seismological Society of America, Vol. 29, No. 1, January, 1939*. Pp. 297. University of California Press. \$1.00.