

body builds, their heights ranging from 5 to 5 ft 11.5 in. and weights from 90 to 158 lb.

The average error of the values computed from the formula as compared with the measured values worked out to be 1.5%, the mean error -0.5%, and the standard deviation of the errors 1.8%.

Statistical analysis of the errors leads us to the conclusion that for all practical purposes Du Bois height-weight formula can be made use of for computing the body surface of Indian subjects also.

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The Scientist and the Library Cataloguer

Mr. Roger Poulin has commented (*SCIENCE*, **117**, 538 [1953]) on the difficulty of classifying a book so as to satisfy everybody: "... one man's orderly arrangement may be another's hodgepodge," he quotes. He is right, but to suggest that the author of a book should state where it is best classified does not ease the difficulty, for the author is himself only one man. The best place to classify and shelve a book will vary from one special library to another, according to the interests of the readers served.

But this is not the end of the story. A general library has to cater for varied interests. It must be admitted that simple classification alone, putting a book at one point in a unidimensional arrangement, cannot do this effectively. It is the function of a library catalogue to bring out alternative positions in the arrangement which a book might occupy, and so to make up for the limitations of the classification.

The essential point about the book cited by Mr. Poulin (Rugh's, *The Frog: Its Reproduction and Development*) is that it is not simply about either frogs or embryology: the subject is compound. Both aspects must be recorded in the catalogue, so that readers are led to this book and associated books whether they are interested in amphibians or embryos. The cataloguer will be helped in this task if the classification of the book already clearly reveals the compound nature of its subject. An enumerative classification like that of the Library of Congress fails to give this help: the book must be labeled either QL668.E2 (*Salientia*) or QL959 (*vertebrate embryology*).

A synthetic classification, on the other hand, sets out separate schedules for each of the various aspects of biology, and forms its class number by linking to-

gether numbers drawn from two or more appropriate schedules. Thus the Colon Classification of the Indian Ranganathan would number Rugh's book K9325: 7, where 9325 (*Anura*) is drawn from a taxonomic schedule, and 7 (*ontogeny*) from another schedule. The cataloguer can immediately translate these two parts of the number into appropriate subject headings.

The working out of sets of independent schedules of primary terms that can be combined to represent compound subjects is occupying the minds both of classificationists and of punched-card users, as the latter combine terms in a very similar way. It is in this work that the scientist can help greatly, for the value of any classification scheme rests on the accuracy with which its basic schedules reflect modern knowledge.

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A Collecting Device for Obtaining Blood Samples at Various Intervals from an Intra-Arterial Catheter

THE development of polyethylene catheters suitable for insertion into arteries provides a convenient method for repeated or continuous sampling from these vessels. It is desirable to keep the catheter as small as possible, not only to facilitate insertion but also to minimize the chance of hematoma formation after the catheter is withdrawn. When this technique was applied to the collection of arterial blood in the determination of cardiac output by the Evans' blue method as described by Hamilton, it was found that sufficient blood could not be collected through the small polyethylene catheter (outside diameter, 0.965 mm; inside diameter, 0.58 mm) in the 2-sec sampling

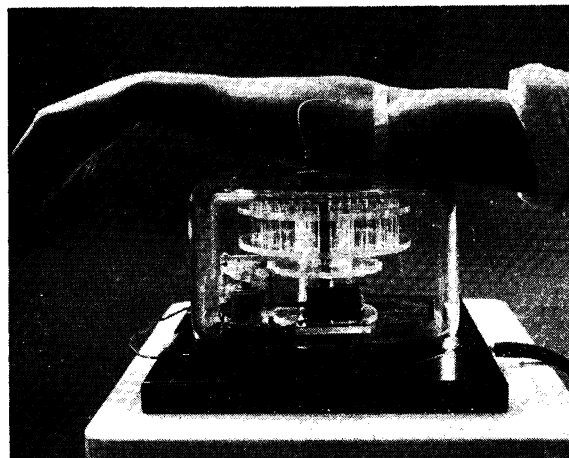


FIG. 1. Complete collecting device ready for operation. The tubing at the right is the connection to the vacuum pump. The relay for activating the ratchet is at the left, under the tube carrier. The solenoid, for returning the ratchet to its resting position, is centrally located, also under the tube carrier.