

"Nev," which would not correspond to the pronunciation of the word at all.

As for the "h" sound, if one would only take the trouble to look to page 344 in Alexandrow's dictionary, which is probably the most complete Russian-English and English-Russian dictionary, one would see that the word "hall" mentioned by Aleš Hrdlička is transliterated as "hol" and not "gol," along with a score of other words containing the same letter "h."

As for the English "sh," no Russian would ever use "š" as suggested by Hrdlička, since there is no letter "š" in Russian. This letter appears in the Czech language and possibly a Czech might use it, but certainly not a Russian. To do such a thing for a Russian would be similar to a case of an American wanting to use some Chinese or Hebrew letters in

transliterating Russian names into English. In transliterating names like "Shaw," the sound "aw" is sometimes transliterated as "ou."

No matter how carefully one tries to transliterate English names into Russian, it can not be done exactly, as there are many English sounds that have no corresponding ones in Russian and *vice versa*. Some Russian scientific publications follow the practise of retaining English names in their original form, printing them in Latin letters. This is an exact method, which leaves no room for any distortions or ambiguities. I believe that, if this practice is more generally used, it might prove to be the best and simplest way of solving this problem.

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SCIENTIFIC BOOKS

TROPICAL DISEASES

Stitt's Diagnosis, Prevention and Treatment of Tropical Diseases. By RICHARD P. STRONG. 1747 pp. Philadelphia: The Blakiston Company. \$21.00.

STITT'S "Diagnostics and Treatment of Tropical Diseases" went through five editions under the able authorship of Rear Admiral E. R. Stitt, Medical Corps, U. S. Navy. The first edition appeared in 1914 and the fifth in 1929. The sixth edition of this well-known American text-book of tropical medicine was published in 1942, and reprinted after further revision in 1943 under the authorship of Dr. Richard P. Strong.

The increase in knowledge of tropical and parasitic diseases accumulated in the twelve years intervening between the appearance of the fifth and sixth editions, together with the obvious needs for providing more detailed information concerning the epidemiology and methods of control of communicable diseases, necessitated enlargement to two volumes.

As is pointed out by Rear Admiral E. R. Stitt in the foreword, Dr. Richard P. Strong brought to the task of revision an unusually broad experience in tropical medicine in many parts of the world. His post as president of the Army Tropical Disease Board in the Philippines; professor of tropical medicine at the University of the Philippines, and subsequently at Harvard; his activities as chairman of Red Cross Commissions for the investigation of pneumonic plague in Manchuria, typhus fever in the Balkans and trench fever in France during the first World War, and his expeditions to Africa, the Amazon and other areas of Central and South America have equipped him with intimate personal knowledge of the field problems in many aspects of tropical medicine. His own investigations in the dysenteries,

plague, trypanosomiasis, bartonellosis and onchocerciasis have constituted important contributions to our knowledge of these diseases and likewise have provided a critique for his treatment of the whole field of tropical medicine. This unusually rich personal experience is amply reflected throughout the book.

The text is arranged in a series of Sections. Section I deals with "Diseases Due to Protozoa"; Section II—"Diseases Due to Bacteria"; Section III—"Diseases Due to Filterable Viruses, Rickettsiae and Allied Organisms"; Section IV—"The Nutritional Disorders"; Section V—"Diseases Not Included in Other Categories," including effects of heat, tropical ulcer, granuloma venereum, climatic bubo and other rarer conditions; Section VI—"Diseases Due to Fungi and Poisonous Plants"; Section VII—"Diseases Due to Animal Parasites," including the role of arthropods in the transmission of disease, poisonous snakes and lizards, fish and coelenterates; Section VIII deals with general considerations of medical practice in tropical areas.

Following the text is an appendix which presents an index to clinical diagnosis, alphabetically arranged, an index of laboratory diagnostic procedures and a section on personal hygiene, tropical hygiene and sanitation.

The sections devoted to descriptions of the particular diseases constitute excellent presentations of the most authoritative data in sufficient detail to make this an excellent reference work, as well as an essential volume for the practitioner of clinical medicine in the tropics.

The selected bibliography which follows each section provides a list of the more important fundamental articles dealing with the subject which adds greatly to the value of the book as a whole. Although it is difficult to single out particular sections, the presen-

tation of malaria, dysenteries, the rickettsiae, plague, cholera, trypanosomiasis and the filarial diseases are noteworthy. The section on tropical hygiene and sanitation and the consideration of the general medical problems presented by practice in the tropics contain much useful information for individuals lacking special training. The index of clinical diagnosis and laboratory diagnosis are likewise useful for quick reference.

The two volumes are well printed and profusely illustrated with excellent and well-selected photographs and drawings. There are surprisingly few typographical errors.

This second printing of the sixth edition constitutes an outstanding contribution to the literature on tropical medicine. It provides an enormous amount of detailed information on many subjects and is an essential and practical text, both for the student and the practitioner in this field. There is no other single work which approaches the usefulness of this text.

THOMAS T. MACKIE

STATISTICAL TABLES

Statistical Tables for Biological, Agricultural and Medical Research. By RONALD A. FISHER and FRANK YATES. Second edition. viii + 96 pp. London: Oliver and Boyd, Ltd. 1943.

In the past five years no book in my possession has had more constant use than the first edition of these tables. It has furnished in compact form the data needed in designing an experiment, computing its results and interpreting the statistics obtained by analysis. The second edition, therefore, is as welcome as an old friend.

Four new tables have been added, each with an explanatory introduction. Table V_1 by P. V. Sukhatme is based upon a compound of two student distributions and gives the Behrens-Fisher test at the five and one per cent. levels for the significance of the difference between two means. It applies where the variances estimated from two series differ significantly, so that they can not properly be pooled for the usual t -test of their means. Table V_2 expands the test at one limit of Table V_1 , for comparisons where one variance is determined from a large number of observations and conforms to the normal distribution and the other, differing from it significantly, has been computed from a small series of Student's type. It may be noted, however, that the adequacy of the Behrens-Fisher test has been questioned by some mathematical statisticians who accept the rest of the book.

Table $VIII_1$ by W. L. Stevens gives the lower and upper limits of the expectation for the binomial and Poisson distributions at probabilities of .005, .025 and

.1. If an event is observed to occur from 0 to 15 times ($=a$) in N trials, where N varies from $2a$ to ∞ , the table gives directly for each probability the expected number of occurrences with which the observation is compatible. With Table $VIII_2$, also by Stevens, the experimenter can estimate the density of organisms in a culture and the variance of the estimate from the incidence of sterile and fertile tubes in two-fold, four-fold and ten-fold dilution series.

Modern experimental technique has been greatly strengthened by designs known as balanced incomplete blocks. Experimenters are well aware of the increase in precision when treatments can be compared on the same animal or plant or on litter mates or on smaller, more homogeneous areas of land. The designs shown in an expanded Table $XVII$ enable the experimenter to compare many treatments with the precision formerly possible only when treatments were few or when one treatment in each small unit was allotted to a "control" or standard with the corresponding loss in efficiency. Answers are given for four of the "cases not yet solved" in Tables $XVIII$ and XIX of the first edition and the introduction for this group of tables has been rewritten to include the Youden square and to describe the newer methods of analysis for recovering the information between as well as within blocks.

The new edition omits the description of how the tables of random numbers were prepared and checked, and other smaller changes are scattered through a very informative introduction. The references have been extended to a list of thirty. Errata for the first edition, all of which have been corrected in the second edition, follow the table of contents.

Other tables in the book are unchanged. These include with suitable introductions the normal distribution; the distribution of t and χ^2 ; z and the variance ratio (Snedecor's F) at four levels of significance; the correlation coefficient at different levels of significance and degrees of freedom; the transformation of r to z ; tests of significance for 2×2 contingency tables; the probit and angular transformations and the terms needed in obtaining maximum likelihood solutions with them; an adequate series of Latin squares and complete sets of orthogonal squares; normalizing scores for ranked data to facilitate their use in the analysis of variance; initial differences of powers of natural numbers; orthogonal polynomials for fitting equations of the first to the fifth degree; common and natural 5-place logarithms; squares, square roots, reciprocals, factorials and selected trigonometric functions; six pages of random numbers and a concluding table of miscellaneous constants.

Additions that would be welcome in a third edition may be suggested. Since few biologists take readily to interpolation, several tables could be expanded to