Is it not better to pay only $5.00 and to leave the Current List as it is? Is it not better to consider it just a rough register, and not to try to boost it into the higher class of the systematic subject catalogue or of the bibliographical index? As a simple register, it is very useful as an enumeration of the contents of the latest issues of journals received by the Army Medical Library. Its only scope is to fill in the time between the issues of the printed and better classified bibliographical keys to medicine. Yet, even as a simple register, it can be used with much advantage. For instance, I am using it for collecting special bibliographies on various subjects I am personally interested in. As soon as the weekly issue comes to my hand, I read it through from Anatomy to group Zoology and mark all the articles I should like to see immediately or in the future. It is then the task of my assistants to copy the marked titles for my personal card file with the exact reference either to the column number of the Current List or to the original itself. The same method could be adopted by any one having the Current List. Indeed, every one should prepare his own bibliographical subject file from this rough weekly register. Bibliographical search being an integral part of research itself, the Current List should never aspire to become more than a rough register, a source left unclassified and undisturbed to be searched intimately and personally by the scientist.

A few more words on the supplementary lists of Recent Book Acquisitions. Such lists have been issued for the last four years by the library in a mimeographed circular, and mailed to other libraries and institutions for the primary purpose of facilitating interlibrary loans, thereby reducing the inquiries as to the holdings of this library to a minimum. The lists served this purpose well, and they are still chiefly for the use of libraries. Individual scholars perhaps would like to have annotated lists of medical books to show them what is trash and what is treasure. Such lists can never be expected from a public institution because annotations with recommendation or condemnation would reduce the library to the rank of the advertising agencies. The list of books is still prepared by the library, which now receives 150 copies to be mailed out gratis to other libraries. The books are arranged under 71 different subjects, and this number was found sufficient to deal with all types of books which the Army Medical Library has received so far. Since each independent publication is individually catalogued, the list includes more than 90 per cent. of the acquisitions. What is left out is of little importance, belonging rather into the class of reprints (many German theses, typewritten theses, etc.).

With this explanation, I believe that the Current List can take its correct place among the bibliographical tools of medicine, and I hope that nobody will expect more from it than what it can offer to the scholar; that is, an almost up-to-date privately published simple register of a conglomerate of journal articles received by a single large medical library and arranged in some rough groups of journals, with no attempt at a systematic classification or proper indexing of subjects.

CLAUDIUS F. MAYER,
Editor of the Index-Catalogue
ARMY MEDICAL LIBRARY

THE DUPLE: A LOGARITHMIC UNIT

To the current number of *The Mathematical Gazette*[1] I have contributed a little homily on numeration and mensuration entitled "Octonaria" which adumbrates the advantages of reckoning by eights rather than in the scale of ten. These are sufficiently manifest to need no elaboration, but there is a cognate matter which also merits consideration—the question of logarithmic units, which was raised ten years ago by Dr. A. H. Davis.[2]

It will be recalled that Dr. Davis proposed that a 10-fold change in any quantity should be called a change of one *brig,* a unit which he subdivided to obtain a more convenient *decibrig.* That these units have not become current may perhaps be ascribed not only to the fact that the brig itself is rather large but also to the somewhat involved conception inherent in the decibrig.

In this matter there may be some advantage in being practical and making more use of the simple scale of two: an appropriate name for a binary change would help and the suggestion is now made that the necessary connotation be given to the word *duple* and that the portmanteau-word *toottha*[3] might be legitimatized. Eight-fold is 3-duple and a 16-fold change or difference a change of 4 duples. In terms of acoustic intensity, one duple equals 3.01 "decibels": an increase of 15 "phons" is a 5-duple change in loudness.

The readier appreciation of values expressed in the scale of two, which familiarity would engender, might prove helpful in more worldly matters, in the purchase of a horse, for example. In terms of the usual farthing for the first shoe-nail,[4] two farthings for the second, and so on to the twenty-fourth nail, the price in farthings amounts to toottha 24 less one, that is £17,476 5s. 3¾d., and a bargain for King Richard.[5]

The annexed table of toottha will be recognized by

[1] P. Simple, *Mathematical Gazette,* October, 1941.
[2] A. H. Davis, *Phys. Soc.,* 1931, *Report of a Discussion on Audition,* p. 136.
[3] Toottha = *two to the* power of.
[4] Oliver Lodge, "Easy Mathematics," London, 1905, p. 155.
[5] Will Shakespeare, "Richard III," London, 1597.

TOOTTHA

	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	1	1.07_2	1.15	1.23	1.32	1.41	1.52	1.62	1.74	1.87
1	2	2.14	2.30	2.46	2.64	2.83	3.03	3.25	3.48	3.73
2	4	4.29	4.60	4.92	5.28	5.66	6.06	6.50	6.96	7.46
3	8	8.57	9.19	9.85	10.6	11.3	12.1	13.0	13.9	14.9
4	16	17.1	18.4	19.7	21.1	22.6	24.3	26.0	27.9	29.9
5	32	34.3	36.8	39.4	42.2	45.3	48.5	52.0	55.7	59.7
6	64	68.6	73.5	78.8	84.4	90.5	97.0	104	111	119
7	128	137	147	158	169	181	194	208	223	239
8	256	274	294	315	338	362	388	416	446	478
9	512	549	588	630	676	724	776	832	891	955

financial experts as showing compound interest; at £7 3s. 6½d. per cent., money doubles itself every ten years, and in a century increases a thousand-fold.

Toottha makes light of astronomical figures: even the number of electrons in the universe amounts only to some toottha 262.8, a figure now shown as $2^{262.8}$ but which might with some advantage be written $2\backslash 262.8$ or, even more simply, $\backslash 262.8$. Curiously enough, the universe itself seems more within our grasp when we reckon its diameter, not by the thousandmillion light-years, but as $2\backslash 74.2$ miles.

PETER SIMPLE

ENGLAND,
OCTOBER, 1941

ORIGIN OF THE JAPANESE WALTZING MOUSE

IN 1912 Fortuyn[1] pointed out that the Japanese waltzing mouse was smaller, and had a shorter tail with a lower number of tail-rings, than European *Mus musculus*. Being quite unfamiliar with the species of Asiatic wild mice, he asked for the advice of the late Oldfield Thomas, of the British Museum, and was told that the only wild mouse of this type occurring in eastern Asia was *Mus musculus wagneri* Eversmann, at that time called *Mus wagneri,* and regarded as a species different from *M. musculus.* As Fortuyn was convinced that the Japanese waltzer was derived from a type distinct from the European house-mouse, he accepted this information as the basis of his contention that the derivation of the waltzer from *wagneri* was a proven fact.

More recently W. H. Gates[2] has supported Fortuyn's view, and has adduced morphological and physiological, as well as historical facts in its favor. Keeler,[3] primarily on historical grounds, has maintained a south Chinese origin of the waltzer.

Through the kindness of Dr. G. M. Allen, of Cambridge, Mass., I have recently had an opportunity to examine specimens received from Dr. Fortuyn, including 24 waltzing mice (8 white, 8 black, 8 Dutch piebald), and 9 wild *wagneri* from Peking, China. They bear out the resemblance between the two types, as described by Fortuyn and Gates. Therefore, it can be taken as proved that the Japanese waltzer has nothing to do with the European house-mouse.

However, the evidence that these mice were first bred in China, and were taken to Japan later on, can not be accepted as conclusive for the following reasons.

(1) *M. m. wagneri* Eversmann is not the only wild race of short-tailed mice of this group, found in eastern Asia. A second wild subspecies, *M. m. manchu* Thomas (1909),[4] is found in Manchuria and Japan. *Wagneri* and *manchu* are very closely related, but in populations of *manchu* a buff, and a dark grey color phase are found, whereas in *wagneri* only the buff phase is known.

(2) The Japanese house-mouse, *M. m. molossinus* Temminck, is derived from the local wild stock of *M. m. manchu,* from which it differs by its small size, and in having the belly buffy, instead of white. It has the same two color phases as the wild stock, the buffy and the dark grey, and almost as short a tail. When Thomas gave his information to Fortuyn, he was not aware of the occurrence of *M. m. manchu* in Japan, nor of the fact that *molossinus* was the common Japanese house-mouse, and that in Japan the European house-mouse does not exist.

(3) The house-mice of southeastern China, as far north as the Yangtze River, belong to the Indian type. They have very long tails, much longer than the head and body. They closely approach the European style, but differ widely from the short-tailed Japanese house-mouse.

(4) No true house-mice occur in northern China. The house-mice there are facultative commensals, and do not differ considerably from the local wild *wagneri.*

(5) The Japanese waltzer agrees in size and tail-length with the Japanese commensal *M. m. molossinus.* There is no need to suppose that it has been taken to Japan from elsewhere. It can not have been bred in northern China, where no true commensal mice are found, nor can it be derived from the house-mice of southern China, from which it is widely different.

ERNST SCHWARZ

U. S. NATIONAL MUSEUM

[1] A. B. D. Fortuyn, *Zool. Anz.,* 39: 88, 1912.
[2] W. Gates, Carnegie Inst. Washington, Publ. 337: 91, 1926.
[3] C. E. Keeler, "The Laboratory Mouse. Its Origin, Heredity and Culture." Cambridge, Mass., 1931.
[4] O. Thomas, *Ann. Mag. Nat. Hist.,* (8) 4: 22, 1909.