

The tables of  $J_n(x)$  and of  $k_n(x)$  marked with asterisks are available in the form of bound photostats for loan for a limited period. It should be emphasized that these are not the Committee's final tables and that they are only made available, by courtesy of the Committee, in order not to hold up the work of establishments having a requirement for them.

Two other tables from which values can be supplied are those of the zeros of  $J_n$  and  $J'_n$ .  $j_{n,s}$  is tabulated to 4D for  $n = 0(1)19$ ,  $s = 1(1)8$ , and  $j'_{n,s}$  to 4D for  $n = 0(1)22$ ,  $s = 1(1)9$ .

## MECHANICAL AIDS TO COMPUTATION

17[Z].—H. A. PETERSON & C. CONCORDIA, "Analyzers for use in engineering and scientific problems," *General Electric Review*, v. 48, September, 1945, p. 29-37.  $20.7 \times 28.5$  cm.

This paper describes each of the following four analyzers in use by the General Electric Company:

- (1) The direct current network analyzer,
- (2) The alternating current network analyzer,
- (3) The transient network analyzer,
- (4) The differential analyzer.

A short account of the engineering applications of each analyzer is given, together with illustrations, and a bibliography of 63 titles, of which 14 of the 18 on Differential Analyzers were given in *MTAC*, v. 1, p. 452-454.

D. H. L.

## NOTES

45. DAWSON'S OR POISSON'S INTEGRAL.—Various tables involving  $\int_0^x e^{-t^2} dt$  have been already noted, *MTAC*, v. 1, p. 322-323, 422-423. H. G. Dawson's table, appearing originally in *London Math. So., Proc.*, v. 29, 1898, p. 521-522, was recomputed and reprinted with corrections by H. M. TERRILL & LUCILE SWEENEY, in *Franklin Institute, J.*, v. 238, Sept. 1944, p. 220f. An abridgement of Dawson's table is given in JAHNKE & EMDE, *Tables of Functions*, 1933 and later eds.,  $x = [0(.01)2; 4S]$ . H. B. drew my attention to the fact that the integral here discussed occurs in Poisson's paper of 1815, "Sur la théorie des ondes," *Acad. d. Sci., Mémoires*, n.s., v. 1, 1818, p. 128-130. Two more references to tables involving the integral are as follows:

1. H. LAMB, "On water waves due to disturbance beneath the surface," *London Math. So., Proc.*, s. 2, v. 21, 1922, p. 367; table of  $F(x) = x + (1 - 2x^2)e^{-x^2} \int_0^x e^{t^2} dt$ , and of  $F'(x)$ , for  $x = [0(.1)2; 3D]$ . Also, p. 368, graph of  $F(x)$ ,  $0 < x \leq 2$ .
2. Y. NOMURA, "On the waves of water of finite depth due to disturbance beneath the surface," *Japan, Tôhoku teikoku daigaku, Science Reports*, s. 1, *math. phys. chem.*, v. 25, 1936, p. 1082; table of  $\psi_0(x) = 2 \int_0^\infty t^s e^{-t^2} \sin(2xt) dt = x + (1 - 2x^2)e^{-x^2} \int_0^x e^{t^2} dt$ ,  $x = [0(.1)2(1)6(2)10; 4D]$ . Also, for the same range, tables of

$$\psi_s(x) = \sum_{r=0}^s \frac{x^{2r+1}}{(s-r)! r!} \frac{d^s}{d(x^2)^s} [x^{2s-2r-1} \psi_0(x)], \quad s = 1, 2, 3.$$

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