where ψ is an arbitrary scalar, its curl satisfies condition (1). The result (4) together with Stokes' theorem gives

$$\frac{D}{Dt} \oint \mathbf{B} \cdot \mathbf{dl} = 0, \tag{6}$$

i.e., that the line integral of **B** about a circuit which moves with the fluid is constant. This may also be proven directly.

The velocity vector **q** satisfies (5) as a dynamical condition and the vorticity vector $\nabla \times \mathbf{q}$ satisfies (1). Thus (4) gives the theorem for the constancy of flux of vorticity and (6), the constancy of circulation.

A GENERAL APPROXIMATION METHOD IN THE THEORY OF PLATES OF SMALL DEFLECTION

A REMARK ON MY PAPER

QUARTERLY OF APPLIED MATHEMATICS, 6, 31-52 (1948)

By M. Z. KRZYWOBLOCKI (*University of Illinois*)

The author wishes to apologize to Professor R. V. Southwell and Dr. A. Weinstein for not mentioning their methods in his paper. As Professor Southwell wrote in one of his papers, it is unlikely, in present circumstances, that any review of numerous methods which appeared lately in the theory of plates could be made complete and any judgement regarding the merits of different methods is premature.

So let us add just two more methods to those mentioned in the Introduction (p. 31) and on the bottom of p. 42 of the author's paper. Weinstein's variational method allows one to solve problems of plates of arbitrary shapes governed by the differential equation $\Delta\Delta w = q$, i.e. with a transverse load only (see, A. Weinstein, Mémorial des sciences mathématiques, No. 88, 1937; N. Aronszajn and A. Weinstein, Am. Jour. Math. **64**, 623-43 (1942); A. Weinstein and D. H. Rock, Quart. App. Math., **2**, 262-6 (1944); A. Weinstein and J. A. Jenkins, Trans. R. S. Canada, Sec. III, 60-67 (1946). Southwell's relaxation method, from its nature is applicable to all cases as may be seen from the examples in Southwell's "Relaxation Methods Applied to Engineering Problems" and from the following papers: L. Fox and R. V. Southwell, Trans. Roy. Soc. (A) **239**, 419-460 (1945); D. G. Christopherson, L. Fox, J. R. Green, F. S. Shaw, and R. V. Southwell, *ibid.* **239**, 461-487 (1945).

BOOK REVIEWS

Tables of Bessel functions of fractional order. Prepared by the Computation Laboratory of the National Applied Mathematics Laboratories, National Bureau of Standards, Volume I. Columbia University Press, New York, 1948. XLII + 413 pp. $7.50.

The first part (pp. 1-272) contains tables for $J_\nu(x)$ for $\nu = \pm 1/4, \pm 1/3, \pm 2/3, \pm 3/4$ and x ranging from 0 to 25, at intervals of 0.001 for small values of x(up to 0.9 for $\nu = -3/4, -2/3$, to 0.8 for $\nu = -1/3, -1/4$, to 0.6 for $\nu = 1/4, 1/3$, and to 0.5 for $\nu = 2/3, 3/4$) and at intervals of 0.01 for larger