53[Q, V, X].—A. H. TAUB, General Editor, *John von Neumann, Collected Works, Volume* VI, Macmillan Co., New York, 1963, viii + 538 pp., 25 cm. Price $14.00.

This is the sixth and last volume of the collected works of John von Neumann, published under the general editorship of A. H. Taub, a close associate of von Neumann. This volume alone is sufficient to remind those of us, who had the good fortune to know von Neumann personally, of the breadth of his scientific interests and achievements and of the fundamental contributions which he had made in so many diverse fields. The sixth volume contains papers in the theory of games, astrophysics, hydrodynamics, and meteorology. In each of these fields he not only made significant contributions but initiated, by his work, new areas of research which will be pursued by scientists for decades to come. Thus, he may be considered as the father of the modern theory of games as well as of the numerical prediction of weather by the solution of the governing hydrodynamic equations.

The writer is most familiar with his work on the interaction of shock waves, which is covered in this volume. This is another field in which his contributions have become the basis for a major area of scientific endeavor both by his contemporaries and by future investigators. The readers of this journal may be interested to know that von Neumann was not only a prime mover in the development of modern digital computer systems, but that he was perhaps the most outstanding human computer of his generation. The paper entitled "The Mach effect and height of burst," by F. Reines and John von Neumann (pages 309–347) reminds the reviewer of an incident which occured during World War II, just prior to the detonation of the first atomic device over Japan. Von Neumann had arrived in Washington to attend a special meeting at which the possible use of this new weapon was discussed. On the train from Princeton, he hurriedly carried out a very lengthy and complex computation in order to determine the height at which the burst should take place in order to attain maximum blast damage. He did this with a pencil on a piece of scratch paper, without the aid of any mathematical tables, formulas, or any modern computer devices. Upon his arrival he handed the paper to me and asked me to please obtain an accurate solution and to call him at the conference as soon as possible. Using all the mathematical tables at my disposal and an electrically operated Friden calculator, I proceeded to recalculate the optimum height of burst as rapidly and accurately as I could. I obtained my result only after four hours of painstaking work and found to my surprise and some chagrin that his result and mine agreed to four decimal places.

H. P.

54[S].—DIETRICH HAHN, ET AL., *Seven-Place Tables of the Planck Function for the Visible Spectrum*, Academic Press, New York, 1964, xxi + 135 pp., 21 cm. Price $5.50.

Let

$$S = \lambda^{-5}[-1 + \exp(c_2/\lambda T)]^{-1}; \qquad H = SV(\lambda);$$

$$\Sigma S = \frac{1}{\Delta\lambda}\int_{350}^{845\text{nm}} S\,d\lambda; \qquad \Sigma H = \frac{1}{\Delta\lambda}\int_{385}^{780\text{nm}} SV(\lambda)\,d\lambda.$$