distribution on the ellipsoidal hypothesis is presented here in full detail. General theorems on stellar statistics are brought together in the eighth chapter, which explains the important work in this field done by Schwarzschild, Kapetyn, Eddington, Van Rhign and others.

The fundamental work of Jeans and Eddington on Stellar Dynamics is dealt with in the tenth chapter. The fundamental principles of the subject, the fundamental equations in several systems of co-ordinates, the theorems of Jeans and Eddington, the cases of spherical and cylindrical symmetry, the hydro-dynamical equations, the recent work of Shiveshwarkar, and the deduction of the possibility of star-streaming are some of the topics in a chapter which is rich in theoretical investigations and suggestions for further work.

The culminating portion of the book is, of course, the topic of galactic rotation. This is treated from the observational standpoint in the eleventh chapter whereas the last chapter deals with the theoretical aspects of galactic dynamics. This last chapter is undoubtedly the most important, and contains all the recent work on the galactic system. The relation between galactic rotation and star-streaming, and the derivation of the ellipsoidal distribution of stellar velocities are beautiful examples of the application of the general theorems of Stellar Dynamics to galactic rotation. The proof of the asymmetry of stellar motions by pure dynamical theory can well be considered as one of the triumphs of Stellar Dynamics. The limitations of the theory are also brought out in the investigation of the differential effects for radial velocities and proper motions, and the direction of star-streaming as consequences of the rotation of the galaxy about the galactic centre. The book concludes with an account of Oort's work on the density of dark matter in the neighbourhood of the Sun—a typical example of what modern Stellar Dynamics has been able to achieve.

A very useful appendix of astronomical constants is to be found at the end of the book, where it is very gratifying to find the Oort's constants A and B in company with aristocratic constants like the constant of gravitation, and the velocity of light!

Dr. Smart has written an extremely well-balanced book without omitting any relevant important work or without going off at peculiar radial speeds in particular directions. We might say with a zero "factor of exaggeration" that this book will at once become the standard work on the subject and remain so for a long time to come.

B. S. MADHAVA RAO.

Theosophy and Science Shake Hands*

IN the *Current Science* for August 1938, I had noticed the first volume of the series entitled "Where Theosophy and Science Meet" issued under the general editorship of D. D. Kanga, in which the ground, scientific and theosophical from "Macrocosm to Microcosm" had been surveyed, and the second volume under notice sketches, as it were, the progress from "Atom to Man". The volume opens with a contribution on "Matter and the Atom" by G. Monod-Herzen who points out that neither theosophy nor science "is yet complete", but both reveal the factor of progress, "an infinite succession of ignorances". The claim is advanced that "Theosophical observers revealed the existence of isotopes before the physicists did so" (p. 26). The second article is contributed by D. D. Kanga in which an attempt is made to show "where and how far Theosophy and Chemistry meet" (p. 29). After explaining the "septenary system" on which the Universe, according to Theosophy, is based, the author examines what Chemistry has to say, summing up the epoch-making discoveries of modern science". 49 sub-planes constitute the physical universe and man. Of these, scientific activity and research are restricted to just *three*. "It is only there that Theosophy and Science can meet" (p. 56). Then follows an article on "Physics" (Light, Sound, etc.), by R. D. Kanga. The author points out or claims that the modern "physicists have unconsciously entered into the region of metaphysics" .....(p. 86). The next contribution on "Relativity" is by Shyama Charan, as also the succeeding one on "Modern Mathematical Thought" in which the strange

---

* *Where Theosophy and Science Meet.*—Part II. Edited by D. D. Kanga. (Published by the Adyar Theosophical Library), 1938. Pp. 169. Price Re. 1-14-0.

equation is sought to be demonstrated that *one is equivalent to two* (p. 115). Then follows the contribution on "Evolutionary Biology" by Margaret A. Anderson, at the conclusion of which reference is made to the "next great race ..... destined to mount from the present ..... to the cosmic or intuitional level of consciousness" (p. 143). The concluding article on "From Mineral to Man" is by Corona G. Trew, who explains that "Mineral, plant and animal, three kingdoms are needed before self-consciousness is born" ..... (p. 157).

As I have indicated at some length, the arguments in my previous review on the basis of which I believe there is no need, practical or speculative, for any meeting between Theosophy and Science or Sciences, I do not propose to refer to them here, but, I would emphatically repeat the truth that any artificial meeting or *rapprochement* between Theosophy and Science must end in complete effacement or distortion of the distinctive individuality of both. My conviction is strengthened by a perusal of the second voulme under notice. The contributors sum up or bring together the results of the different sciences and argue that most, if not all, these results are found anticipated in the writings of Madame Blavatsky, especially in the *Secret Doctrine*, from which statements and *obiter dicta* are quoted.

I desire to make only one comment. The advantages of sciences and scientific investigation in the shape of Radio, Air-navigation *et hoc* have been placed within the reach of all on a scale of commercial distribution. When, however, I am told that there are still 46 sub-planes to be investigated, I am entitled to demand that I be let into the secret of these *planes* as legitimately as an inquirer would demand, say, light on the mechanism of the locomotive. Laboratory verification and commercial distribution would be the crux. In that crux-land, Theosophy and Science *emphatically do not meet*.

With great respect, I would like to make a present of the following to Sir C. V. Raman and other scientists. The writer on "Relativity" remarks quite sincerely, rather pathetically, I should suppose—"We do not know what is the nature of Light. We do not know what is the nature of Gravitation. We do not know what is the nature of Space-Time". I would like to put every sentence in italics. Whether the scientists know anything about Light or not, I do know that the *Advaitic dictum*, "Brahma-Satyam-Jaganmithya - jeevo - Brahmaiva-na-aparah" has nothing whatever to do with *Relativity* as understood and interpreted by Einstein and challenged by Sir Suleiman, I believe.

Nor am I convinced about the theoretical soundness or invulnerability of the so-called "Occult method", or practical application thereof making any standing or substantial contribution to the solution of any of the problems confronting modern mankind. There may be a "Scientific League of Nations" which Ritchie Calder wants, but, seeing the fate that has overtaken the League of Nations, similar leagues, even of scientists, must be deemed suspect. I also note that D. D. Kanga wants a Chair in Occultism in all the principal Universities of the world. In matters of advanced research, the Madras University always takes the initiative. I can only hope before the third volume is on the Editor's table at the *Current Science* Office, the Madras University would have established a Chair of Occultism, and appointed a proper Professor. Be that as it may, I detect a small typographical error in the text of *Brihad-aranyaka* on page 94.

R. NAGARAJA SARMA.