

## THE RIDDLE OF THE UNIVERSE

they are definitely annulled by the scientific criticism of the last few decades.

The extreme importance of the subject leads us to oppose to these untenable "proofs of immortality" a brief exposition of the sound scientific arguments against it. The *physiological* argument shows that the human soul is not an independent, immaterial substance, but, like the soul of all the higher animals, merely a collective title for the sum-total of man's cerebral functions; and these are just as much determined by physical and chemical processes as any of the other vital functions, and just as amenable to the law of substance. The *histological* argument is based on the extremely complicated microscopic structure of the brain; it shows us the true "elementary organs of the soul" in the ganglionic cells. The *experimental* argument proves that the various functions of the soul are bound up with certain special parts of the brain, and cannot be exercised unless these are in a normal condition; if the areas are destroyed, their function is extinguished; and this is especially applicable to the "organs of thought," the four central instruments of mental activity. The *pathological* argument is the complement of the physiological; when certain parts of the brain (the centres of speech, sight, hearing, etc.) are destroyed by sickness, their activity (speech, vision, hearing, etc.) disappears; in this way nature herself makes the decisive physiological experiment. The *ontogenetic* argument puts before us the facts of the development of the soul in the individual; we see how the child-soul gradually unfolds its various powers; the youth presents them in full bloom, the mature man shows their ripe fruit; in old age we see the gradual decay of the psychic powers, corresponding to the senile