The third book of Levi ben Abraham ben Ḥayyim’s voluminous treatise, *Livyat Ḥen*, is dedicated to the subject of astronomical and astrological knowledge. In its twelfth chapter, Levi describes a cosmological mechanism that provides optimal thermal conditions for human life and secures the persistence of the inhabited world. Levi identifies this mechanism with God’s general providence or, at least, with one aspect of it. The main purpose of this article is to present a close study of the mechanism and describe its *modus operandi*, and to shed light on the providential role of the celestial bodies in Levi’s thought. The article also shows that Gersonides was familiar with the mechanism, and it offers a brief comparison of Levi ben Abraham’s mechanism with Gersonides’ naturalistic account of providence. In addition, it identifies some of the sources of the third book of *Livyat ḥen*, and provides insights into its character.