abandoned this business and turned his attention to dressing the material for men's hats. Meantime he continued to pursue his studies in Hebrew, especially in the Prophets.

From 1783 to 1797 Levi was busily engaged in issuing a series of works (a list of which is given below) dealing with Jewish theology, grammar, and ritual. He rendered great services to the London Jews in translating their prayers into English and in vindicating their faith against the onslaughts of Dr. Priestley and Thomas Paine. His works present a remarkable instance of industry and perseverance under adverse conditions. During the latter part of his life he followed the business of a printer.

David Levi.

Among Levi's literary works were: "Rites and Ceremonies of the Jews" (London, 1783); "Lingua Sacra" (3 vols., 1785-87), a Hebrew dictionary and grammar; letters to Dr. Priestley (1787-89) in reply to the latter's "Letters to the Jews"; "The Pentateuch in Hebrew and English" (1789). He wrote also "Translations of the Hebrew Prayers and Services into English" (1789-93), which he undertook at the request of the representatives of the Portuguese Jews; "Dissertations on the Prophecies" (vol. i. 1793). In controversy with believers and unbelievers he wrote "Letters to Mr. Halhed on the Subject of the Prophecies of Brothers" (1795) and "Letters to Thomas Paine, in Answer to His 'Age of Reason'" (New York, 1797). Here he attempts to show that the divine mission of the Prophets is fully established by the present dispersion of the Jews. In 1794 he published a translation of the Seder service.

Levi was also poet in ordinary to the synagogue, and furnished odes when required on several public celebrations, as, for instance, on the king's escape from assassination in 1795.

BIBLIOGRAPHY: *Jew. Chron.* Sept. 3, 10, 1896; Lysons, *Environs of London*, Supplement, pp. 430-431; *European Magazine*, May, 1799; *Memoirs of B. Goldsmid*; Picciotto, *Sketches of Anglo-Jewish History*, pp. 228, 229; *Dict. Nat. Biog.*

J. G. L.

LEVI, EUGENIA: Italian authoress; born Nov. 21, 1861, at Padua; educated in that city, and in Florence and Hanover. In 1885 she was appointed professor at the Royal High School for Young Ladies at Florence.

She has written many essays and studies for the Italian journals and has published the following works: "Ricorditi," anthology of Italian prosaists and poets from Dante Alighieri to Giosuè Carducci (Florence, 1888; 5th ed. 1899); "Dai Nostri Poeti Viventi" (Florence, 1891; 2d ed. 1896); "Dai Giornale di Lia" (Rome, 1892); "Rammentiamocci" (Florence, 1893); "Dante . . . di Giorno in Giorno" (*ib.* 1894; 3d ed. 1898), a collection of quotations from Dante; "Pensieri d'Amore" (*ib.* 1894; 3d ed. 1900); "Fiorita di Canti Tradizionali del Popolo Italiano" (*ib.* 1895); "Deutsch," a translation of standard German works (*ib.* 1899).

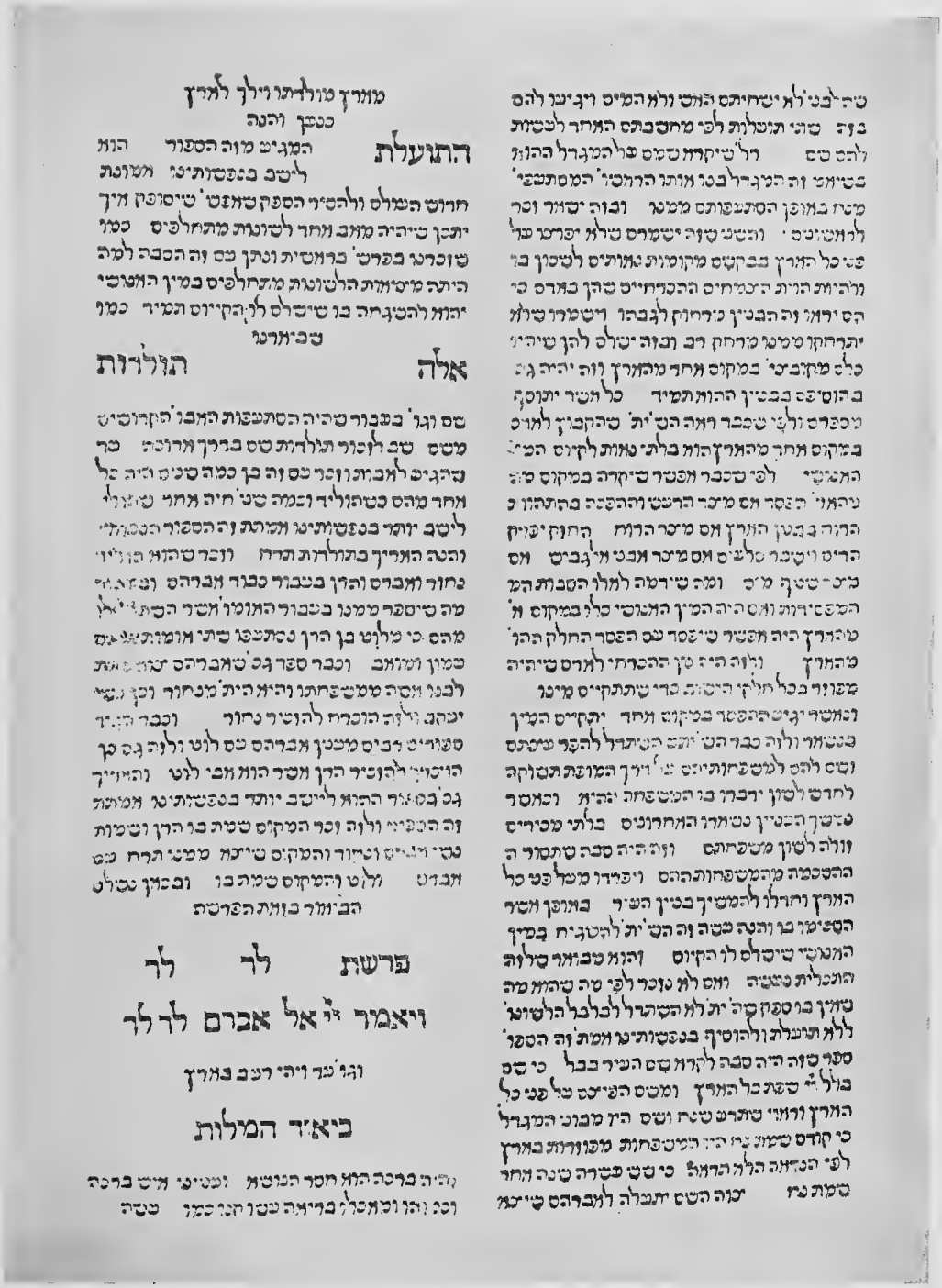
S. F. T. H.

LEVI BEN GERSHON (RaLBaG, commonly called **Gersonides;** known also as **Leon de Bagnols,** and in Latin as **Magister Leo Hebræus):** French philosopher, exegete, mathematician, and physician; born at Bagnols in 1288; died April 20, 1344. Abraham Zacuto ("Yuḥasin," ed. Filipowski, p. 224) states that Levi died at Perpignan in 1370; but the exact date of his death is given as above by Petrus of Alexandria, who translated in 1345 a note by Levi on the conjunction of Saturn with Jupiter (see Steinschneider in "Hebr. Bibl." vii. 83-84). "Gershuni," the Hebrew equivalent of "Gersonides," was first used to designate Levi b. Gershon by David Messer Leon (*c.* 1500). Levi was a descendant of a family of scholars. According to Zaçuto (*l.c.*), his father was Gershon b. Solomon, the author of "Sha'ar ha-Shamayim" (but see Steinschneider, "Hebr. Uebers." p. 9, and Gross, "Gallia Judaica," p. 94); according to Zacuto (*l.c.*), Ibn Yaḥya ("Shalshelet ha-Ḳabbalah," p. 83, Warsaw, 1889), Conforte ("Ḳore ha-Dorot," p. 19a), and Azulai ("Shem ha-Gedolim," i.), Naḥmanides was Levi's maternal grandfather. As Levi himself, in his commentary on the Pentateuch (on Ex. xxxiv. 9), quotes Levi ha-Kohen as his grandfather, and as Levi b. Gershon is not known to have been a priest, this Levi ha-Kohen was apparently his mother's father. It was therefore suggested by Carmoly (Jost's "Annalen," i. 86) that Naḥmanides was the maternal grandfather of Levi's father. Levi was doubly related to Simon b. Ẓemaḥ Duran. Besides being a cousin of Judah Delesfils, Duran's grandfather, he married the latter's sister (Duran, "Tashbeẓ," i., No. 134; see Steinschneider, "Hebr. Bibl." *l.c.*).

Very little is known of Levi's life beyond the fact that he lived now in Orange, now in Avignon, now in a town called in Hebrew עיר האזוב = "the city of hyssop" (comp. Isidore Loeb in "R. E. J." i. 72 *et seq.*, who identifies the last-named town with Orange). In spite of Ben Adret's ban on those who taught philosophy to the young, Levi was early initiated into all its branches; and he was not thirty years old when he began to write the "Milḥamot Adonai," the philosophical work which brought him so much renown. Isaac de Lattes (Preface to "Sha'are Ẓiyyon") writes: "The great prince, our master Levi b. Gershon, was the author of many valuable works. He wrote a commentary on the Bible and the Talmud; and in all branches of science, especially in logic, physics, metaphysics, mathematics, and medicine, he has no equal on earth." Though a distinguished Talmudist, Levi never held a rabbinical office. He earned a livelihood most probably by the practise of medicine.

His Versatility.

In his commentary on the Bible, Levi makes frequent comparisons of Hebrew and Arabic words, while he speaks of Latin as the language of the Christians (commentary on I Sam. xvi. 6). Neubauer ("Les Ecrivains Juifs Français," p. 249)



PAGE FROM THE FIRST EDITION OF LEVI BEN GERSHON'S COMMENTARY TO THE PENTATEUCH, MANTUA, BEFORE 1480

(From the Sulzberger collection in the Jewish Theological Seminary of America, New York.)

concludes, contrary to the assumption of Isidore Weil ("Philosophie Religieuse de Lévi-ben-Gerson," p. 15, Paris, 1868), that Levi knew Latin well, but not Arabic.

Although Levi lived in Provence, where, under the protection of the popes, the Jews suffered less than in other provinces of France, yet he sometimes laments over the sufferings of the Jews, which, he says, "are so intense that they render meditation impossible" (Preface to "Milḥamot").

His Works.

In an epilogue to his commentary on Deuteronomy written in 1338 (Paris MS. No. 244) he says he was unable to revise his commentary on the Pentateuch at Avignon, as he could not obtain there a copy of the Talmud.

Levi was the author of the following philosophical works: (1) "Milḥamot Adonai" (Riva di Trenta, 1560), mentioned above, begun in 1317 and finished in 1329 (see below). (2) Commentary on the Pentateuch (Mantua, 1476–80). (3) Commentary on the Earlier Prophets (Leiria, 1494). The philosophical essence of these two commentaries was published separately under the title "To'aliyyot" (Riva di Trenta, 1550 and 1564 respectively). Commentaries (4) on Job (Ferrara, 1477), (5) on Daniel (n.d.; n.p.), on Proverbs (Leiria, 1492), (6) on Canticles, Esther, Ecclesiastes, and Ruth (Riva di Trenta, 1560); (7) "Sefer ha-Heḳḳesh ha-Yashar," a treatise on syllogisms; (8) commentary on the Middle Commentaries and the résumés of Averroes, all of them finished about 1321 (the part of this commentary which refers to Porphyry's Isagoge to the categories, and to the treatise on interpretation, was translated into Latin by Jacob Mantino and published in the first volume of the works of Aristotle with the commentaries of Averroes); (9) "Sefer ha-Mispar," called also "Ma'aseh Ḥosheb," a treatise on algebra, which Levi finished in 1321, when, he says, he was thirty-three; (10) a treatise on astronomy, originally forming the first part of the fifth section of the "Milḥamot," but omitted by the editor, who considered it a separate work (see below); (11) commentary on the introduction to, and books i., iii.–v. of, Euclid, probably the work referred to by Joseph Solomon Delmedigo (see Geiger, "Melo Ḥofnayim," p. 12, Hebr.). (12) "Dillugim," astrological note on the seven constellations, in which Levi refers to his "Milḥamot"; (13) "Meshiḥah," on a remedy for the gout (Parma MS. De Rossi No. 1189; Neubauer, "Cat. Bodl. Hebr. MSS." No. 2142, 37). Levi wrote also the following rabbinical works: (14) "Sha'are Ẓedeḳ," commentary on the thirteen hermeneutic rules of Ishmael b. Elisha, printed in the "Berit Ya'aḳob" of Jacob b. Abraham Faitusi (Leghorn, 1800). (15) "Meḥokeḳ Safun," commentary on the haggadah in the fifth chapter of Baba Batra, mentioned by Solomon b. Simeon Duran ("Milḥemet Miẓwah," p. 23). Neubauer (*l.c.* p. 253) considers it doubtful whether the authorship of this work can be correctly ascribed to Levi. (16) Commentary on Berakot, mentioned by Levi in his commentary on Deuteronomy. (17–18) Two responsa signed by Levi b. Gershon, one concerning "Kol Nidre" and mentioned by Joseph Alashkar of Tlemçen, the other mentioned by Isaac de Lattes (Responsa, i. 88), and its authorship declared doubtful by Neubauer (*l.c.*). The Parma MS. No. 919 contains a liturgical confession beginning אלהי בישתי and attributed to Levi.

The following works are erroneously attributed to Levi b. Gershon: commentary on Averroes' "De Substantia Orbis," which seems to have been written by Moses of Narbonne; "Awwat Nefesh," a commentary on Ibn Ezra's commentary on the Pentateuch (comp. Benjacob, "Oẓar ha-Sefarim," p. 31); "Magen Yeshu'ot," a treatise on the Messiah; "Yesod ha-Mishnah" (Wolf, "Bibl. Hebr." iii. 650); ritual institutions ("taḳḳanot"; Parma MS. De Rossi No. 1094); commentary on Bedersi's "Beḥinat 'Olam."

His Astronomy.

Some description may be given here of Levi's astronomical treatise. It has been said that this was originally included in the "Milḥamot." It is probably the one referred to under the title "Ben Arba'im le-Binah" by Abraham Zacuto ("Tekunnat Zekut," ch. vi.), in allusion to Levi's being forty years old when he finished it. Steinschneider (in Ersch and Gruber, "Encyc." section ii., part 43, p. 298) calls it simply "Sefer Tekunah." It consists of 136 chapters. After some general remarks on the usefulness of astronomy and the difficulties attending its study, Levi gives a description of an instrument which he had invented for precise astronomical observations and which he calls "megalleh 'amuḳḳot." In the ninth chapter, after having devoted to this instrument two poems (published by Edelmann in "Dibre Ḥefeẓ," p. 7), he exposes the defects of the systems of Ptolemy and Al-Bitruji, and gives at length his own views on the universe, supporting them by observations made by him at different times. He finished this work Nov. 24, 1328, but revised it later, and completed it by adding the results of observations made up to 1340. The ninety-ninth chapter includes astronomical tables, which were commented on by Moses Botarel. This work was highly praised by Pico de Mirandola, who frequently quoted it in his "Disputationes in Astrologiam." Its importance is also apparent from the fact that the part treating of the instrument invented by Levi (ch. iv.–xi.) was translated into Latin by order of Pope Clement VI. (1342). Later the whole work was translated into Latin, and the beginning was published by Prince Boncompagni ("Atti dell' Academia dei Nuovi Lincei," 1863, pp. 741 *et seq.*).

BIBLIOGRAPHY: Grätz, *Gesch.* 3d ed., vii. 315–322; Gross, *Gallia Judaica*, pp. 94 *et seq.*; Munk, *Mélanges*, pp. 497–501; De Rossi, *Dizionario*, i. 126 *et seq.*; Renan-Neubauer, *Les Écrivains Juifs Français*, pp. 240–298; Steinschneider, *Cat. Bodl.* cols. 1607–1615; *idem*, in Ersch and Gruber, *Encyc.* section ii., part 43, pp. 295–301; *idem*, in Berliner's *Magazin*, xvi. 137 *et seq.*; idem, in *Mi-Mizraḥ umi-Ma'arab*, iv. 40 *et seq.*; idem, *Hebr. Uebers.* p. 27 *et passim.*

M. Sel.

——**As Philosopher:** The position of Levi ben Gershon in Jewish philosophy is unique. Of all the Jewish Peripatetics he alone dared to vindicate the Aristotelian system in its integrity, regardless of the conflict existing between some of its doctrines and the principal dogmas of Judaism. Possessed of a highly developed critical sense, Levi sometimes disagrees with Aristotle and asserts his own views in opposition to those of his master, Averroes; but when, after having weighed the pros and cons of a

doctrine, he believes it to be sound, he is not afraid to profess it, even when it is directly at variance with an accepted dogma of Jewish theology. "The Law," he says, "can not prevent us from considering to be true that which our reason urges us to believe" (Introduction to the "Milḥamot," p. 6).

His Unique Position.

Coming after Maimonides, Levi treated only of those philosophical questions which the author of the "Moreh Nebukim," because of his orthodoxy, either solved in direct opposition to Aristotelian principles, or explained by such vague statements that the student was left in the dark as to Maimonides' real opinion on the subject. These questions are: the immortality of the soul; prophecy; God's omniscience; divine providence; the nature of the celestial spheres; and the eternity of matter. To the solution of these six philosophical problems Levi devoted his "Milḥamot Adonai." The work comprises six main divisions, each subdivided into chapters. The method adopted by Levi is that of Aristotle: before giving his own solution of the question under discussion he presents a critical review of the opinions of his predecessors. The first main division opens with an exposition of the theories of Alexander of Aphrodisias, Themistius, Averroes, and of certain philosophers of his time, concerning Aristotle's doctrine of the soul. Aristotle's own treatment of this subject is, indeed, very obscure; for while asserting ("De Anima," ii. 1) that the soul is the first entelechy of the organic body, and consequently can not be separated from it any more than form can be separated from matter, he maintains (*ib.* iii. 5) that of the two elements of the soul, the passive intellect and the active intellect, the latter is immortal. To reconcile these two conflicting statements, Alexander of Aphrodisias, in his paraphrase of Aristotle's book on the soul, makes a distinction between the material intellect (*νοῦς ὑλικὸς*), which, like matter, has only a potential existence, and the acquired intellect (*νοῦς ἐπικτητός*), which latter is the material intellect when, by study and reflection, it has passed from potentiality into actuality, and has assumed an effective existence. The cause of this transition is the universal intellect, which is God Himself. But as the relation between God and the soul is only temporary, divine intervention ceases at death, and the acquired intellect lapses into nothingness. This psychological system, in which a mere physical faculty of a substance that has nothing spiritual in its essence may by a gradual development become something immaterial and permanent, is rejected by Themistius.

Views on the Soul.

For him the intellect is an inherent disposition which has for its substratum a substance differing entirely from that of the body. Averroes, in his treatise on the intellect, combines the two systems, and enunciates the opinion that the intellect is a mere potentiality so long as it is in the body, but that it becomes an actual substance as soon as it leaves the body. According to some contemporaries of Levi the intellect is a faculty which is self-existent.

After a thorough criticism of these various opinions, Levi gives his own view on the nature of the intellect. The intellect, he says, which is born with man, is but a mere faculty that has for a substratum the imaginative soul, this latter being allied to the animal soul. This faculty, when put in motion by the universal intellect, begins to have an effective existence by the acquired ideas and conceptions with which it identifies itself; for the act of thinking can not be separated from the object of the thought. This identification of the intellect with the intelligible constitutes the acquired intellect ("sekel hanikneh"), which is to the original faculty what form is to matter. But does the acquired intellect cease to exist with the death of the body? This question is closely connected with that of the nature of universals. If, as asserted by the realists, universals are real entities, the acquired intellect, which consists of conceived ideas that have a real existence, may survive the body; but if, as maintained by the nominalists, nothing exists but individuals, and universals are mere names, immortality is out of the question. In opposition to Maimonides ("Moreh," iii. 18) Levi defends the theory of the realists and maintains thereby the principle of immortality.

The second division of the "Milḥamot" is devoted to philosophy. It was intended to supplement and correct some statements made by Aristotle in his unfinished work "De Sensu et Sensibili," which contains two chapters on divination. While Maimonides (*l.c.* ii. 32–48) treated only of the psychological side of the problem, "What are the requisites of prophecy?" Levi considered also the metaphysical phase, "Is prophecy possible?"; "Is the admissibility of prescience not absolutely incompatible with the belief in man's freedom of will?" To answer the first question there is, according to Levi, no need of speculative demonstrations. That there are men endowed with the faculty of foreseeing the future is, he considers, incontestable. This faculty is found not only in prophets, but also in soothsayers, visionaries, and astrologers. He cites the case of a sick man personally known to him, who, though without any medical knowledge, dreamed of the remedy which would cure him. Levi himself claimed to have received in dreams, on many occasions, solutions to puzzling metaphysical problems.

On Prophecy.

But prescience implies also predestination. This, however, seems to conflict with freedom of the will. To refute this objection, Levi endeavors to demonstrate that, though all sublunary events are determined by the celestial bodies, man may by his freedom of will and his intelligence annul such determinations. After having reconciled prediction with the principle of free will, he defines the nature of prescience and establishes a distinction between prophecy and other kinds of divination. In prophetic visions, he says, it is the rational faculty which is put into communication with the universal intellect, and therefore the predictions are always infallible; while in divination the receptive faculty is the imaginative power, and the predictions may be often chimerical. Thus, like Maimonides, Levi holds that the origin of prophetic perceptions is the same as that of ordinary science—the universal intellect. But, while the author of the "Moreh" counts among the requisites of prophecy a fertile imagination, Levi maintains that the greatness

of the prophet consists precisely in his faculty of so checking the exercise of imagination that it may not disturb the dictates of reason. Another point of disagreement between Maimonides and Levi is the question whether intellectual and moral perfections are alone sufficient to insure to their possessor prophetic vision. For Maimonides the special will of God is the sine qua non for prophecy; for Levi moral and intellectual perfections are quite sufficient.

The most interesting part of the "Milḥamot" is the third main division, which treats of God's omniscience. As is known, Aristotle limited God's knowledge to universals, arguing that if He had knowledge of particulars, He would be subject to constant changes. Maimonides rejects this theory, and endeavors to show that belief in God's omniscience is not in opposition to belief in His unity and immutability. "God," he says, "perceives future events before they happen, and His perception never fails. Therefore no new ideas can present themselves to Him. He knows that such and such an individual will be born at such a time, will exist for such a period, and will then return into non-existence. The coming into existence of this individual is for God no new fact; nothing has happened that He was unaware of, for He knew this individual, such as he now is, before his birth" ("Moreh," i. 20).

God's Omniscience.

As to the objections made by the Peripatetics to the belief in God's omniscience; namely, how is it conceivable that God's essence should remain indivisible, notwithstanding the multiplicity of knowledge of which it is made up; that His intelligence should embrace the infinite; that events should maintain their character of contingency in spite of the fact that they are foreseen by the Supreme Being —these, according to Maimonides, are based on an error. Misled by the use of the term "knowledge," men believe that whatever is requisite for their knowledge is requisite for God's knowledge also. The fact is that there is no comparison whatever between man's knowledge and that of God, the latter being absolutely incomprehensible to human intelligence. This theory is severely criticized by Levi, who affirms that not reason but religion alone dictated it to Maimonides. Indeed, Levi argues there can be no doubt that between human knowledge and God's knowledge there is a wide difference in degree; but the assumption that there is not the slightest analogy between them is unwarranted. When the nature of God is characterized by means of positive determinations, the soul is taken as the basis of reasoning. Thus science is attributed to God, because man also possesses it to a certain extent. If, then, as Maimonides supposes, there is, except in name, no likeness between God's knowledge and man's knowledge, how can man reason from himself to God? Then, again, there are attributes which can be predicated of God, as, for instance, knowledge and life, which imply perfection, and others which must be denied to Him, as, for instance, corporeality and motion, because these imply imperfection. But, on the theory of Maimonides, there is no reason for the exclusion of any attribute, since, applied to God, all attributes necessarily lose their significance. Maimonides is indeed consistent, and excludes all positive attributes, admitting only negative ones; but the reasons given by him for their distinction are not satisfactory.

Having thus refuted Maimonides' theories both of God's omniscience and of the divine attributes, Levi gives his own views. The sublime thought of God, he says, embraces all the cosmic laws which regulate the evolutions of nature, the general influences exercised by the celestial bodies on the sublunary world, and the specific essences with which matter is invested; but sublunary events, the multifarious details of the phenomenal world, are hidden from His spirit. Not to know these details, however, is not imperfection, because in knowing the universal conditions of things, He knows that which is essential, and consequently good, in the individual.

In the fourth division Levi discusses the question of divine providence. Aristotle's theory that humanity only as a whole is guided and protected by a divine providence, admits the existence of neither prophecy nor divination. Nor can every individual be the object of the solicitude of a special providence; for this is (1) against reason, because, as has been demonstrated, the divine intelligence embraces only universals, and it is inadmissible that evil can proceed from God, the source of all good; (2) against experience, because one often sees the righteous borne down by miseries, while the wicked are triumphant; (3) against the sense of the Torah, which when warning men that their rebellions will be followed by disasters, because God will hide His face from them, implies that the calamities which will overtake them will come as the consequence of their having been left without protection from the vicissitudes of fate. Levi, therefore, arrives at the conclusion that some are under the protection and guidance of the general providence, and others under a special, individual providence. It is incontestable, he says, that a general, beneficent providence cares for all sublunary beings. Upon some it bestows certain bodily organs which enable them to provide themselves with the necessaries of life and to protect themselves from danger; to others it gives a nature which enables them to avoid that which would harm them. It is also demonstrated that the higher a being stands in the scale of creation the more organs it possesses for its preservation and defense; in other words, the greater is the solicitude and protection bestowed upon it by the Creator. Those species of animals which more nearly resemble man participate in the solicitude of providence to a greater extent than that part of animality which forms the connecting-link between the animal and vegetable kingdoms. If, then, the degree of participation by a being in the protection of the divine providence is proportioned to the degree of its development, it is obvious that the nearer one comes to the active intelligence, the more is he the object of the divine solicitude. Thus those who strive to develop the faculties of the soul enjoy the care of a special, individual providence, while those who grope in ignorance are guarded only by the general providence.

Divine Providence.

Relation to the Intellect.

There is, however, one great objection to this theory; namely, there can be no question of a special providence if God knows only generalities. To meet this antinomy Levi defines the nature of the special providence. All the events, he says, all the phenomena of this world, good as well as evil, are due to the influences of the celestial bodies. The various effusions of these bodies are regulated by eternal, immutable laws; so that the demiurgic principle, which knows these laws, has a perfect knowledge of all the phenomena which affect this world, of the good and evil which are in store for mankind. This subjection to ethereal substances, however, is not absolute; for man by his free will can, as stated above, annul their determinations. But in order to avert their mischievous emanations he must be warned of the danger. This warning is given by the divine providence to mankind at large; but as it is perceived only by those whose intellect is fully developed, the divine providence benefits individuals only.

The fifth division comprises three parts treating respectively of astronomy, physics, and metaphysics.

Astronomy, Physics, and Metaphysics.

The astronomical part, which forms of itself a considerable work of 136 chapters, was not included in the published edition of the "Milḥamot," and is still in manuscript. As has been said above, it was translated by order of Pope Clement VI. into Latin and enjoyed such a high reputation in the Christian scientific world that the astronomer Kepler gave himself much trouble to secure a copy of it.

The second part is devoted to the research of the final causes of all that exists in the heavens, and to the solution of astronomical problems, such as whether the stars exist for themselves, or whether they are only intended to exercise an influence upon this world; whether, as supposed by Ptolemy, there exists above the starred spheres a starless one which imparts the diurnal motion to the inferior heavens, or whether, as maintained by Averroes, there is none; whether the fixed stars are all situated in one and the same sphere, or whether the number of spheres corresponds to that of the stars; how the sun warms the air; why the moon borrows its light from the sun and is not luminous of itself.

In the third part Levi establishes the existence first of an active intellect, then of the planetary intelligences, and finally the existence of a primary cause, which is God. According to him, the best proof of the existence of an efficient and final cause is the phenomenon of procreation. Without the intervention of an efficient intelligence there is no possibility of explaining the generation and organization of animated beings.

But is there only one demiurgic intelligence, or are there many? After reviewing the various existing opinions on the subject, Levi concludes: (1) that the various movements of the heavenly bodies imply a hierarchy of motive principles: (2) that the number of these principles corresponds to that of the spheres; (3) that the spheres themselves are animated and intelligent beings, accomplishing their revolutions with perfect cognition of the cause thereof.

The Spheres.

In opposition to Maimonides, he maintains that the various intelligences did not emanate gradually from the first, but were all the direct effect of the primary cause. Can not this primary cause, however, be identified, as supposed by Averroes, with one of the intelligences, especially with that which bestows motion upon the most exalted of the spheres, that of the fixed stars? This, says Levi, is impossible, first because each of these intelligences perceives only a part of the universal order, since it is confined to a limited circle of influences; if God, then, were the mobile of any sphere there would be a close connection between Him and His creatures.

The last division deals with creation and with miracles. After having refuted the arguments advanced by Aristotle in favor of the eternity of the world, and having proved that neither time nor motion is infinite, Levi demonstrates: (1) that the world had a beginning; (2) that it has no end; and (3) that it did not proceed from another world. In the order of nature, he says, the whole earth was covered by water, which was enveloped by the concentric sphere of air, which, in turn, was encompassed by that of fire. Was it, he asks, as Aristotle supposes, the absorbent heat of the sun which caused the water to recede and the land to appear? In that case the southern hemisphere, where the heat is more intense, ought to present a similar phenomenon. It is, therefore, obvious that it was due to the action of a superior agent. From the fact that the world had a beginning one must not, however, infer that it will have also an end; on the contrary, it is imperishable like the heavenly bodies, which are its sources of life and motion, and of which the substances, being immaterial, are not subject to the natural laws of decay.

Creation.

Having thus demonstrated that the world is not eternal "a parte ante" and is eternal "a parte post," Levi gives his own view of creation. He chooses a middle position between the theory of the existence of a primordial cosmic substance and that of a creation "ex nihilo," both of which he criticizes. According to him, there existed from eternity inert undetermined matter, devoid of form and attribute. At a given moment God bestowed upon this matter (which till then had only a potential existence) essence, form, motion, and life; and from it proceeded all sublunary beings and all heavenly substances, with the exception of the separated intelligences, which were direct emanations of the Divinity.

In the second part of the last division Levi endeavors to demonstrate that his theory of creation agrees with the account of Genesis; and he devotes the last chapters of the "Milḥamot" to the discussion of miracles. After having defined from Biblical inferences their nature, he demonstrates that the actual performer of miracles is neither God nor prophet, but the active intellect. There are, he says, two kinds of natural laws: those which regulate the economy of the heavens and by which the ethereal substances produce the ordinary sublunary phenomena, and those which govern the special operations of the demiurgic principle and by which are produced the extraordinary phenomena known as miracles. Like

Miracles.

freedom of the will in man, this faculty was given by God to the active intellect as a corrective of the influences of the celestial bodies, which are sometimes too harsh in their inflexibility. The supernatural as literally understood does not exist, since even a prodigy is a natural effect of a primordial law, though it is distinguished from other sublunary events by its origin and its extreme rarity. Thus a man of a highly developed intellect may foresee the accomplishment of a certain miracle which is only the result of a providential law conceived and executed by the active intellect. Miracles are subjected, according to Levi, to the following laws: (1) their effect can not remain permanently and thus supersede the law of nature; (2) no miracle can produce self-contradictory things, as, for instance, an object that shall be both totally black and totally white at the same time; (3) no miracle can take place in the celestial spheres. When Joshua said, "Sun, stand thou still upon Gibeon" (Josh. x. 12), he merely expressed the desire that the defeat of the enemy should be completed while the sun continued to shine on Gibeon. Thus the miracle consisted in the promptness of the victory. Nor is the going backward of the shadow on the dial of Ahaz (II Kings xx. 9; Isa. xxxviii. 8) to be understood in the sense of the sun's retrogression: it was the shadow which went backward, not the sun.

Philosophy in His Commentaries.

The conclusions arrived at in the "Milḥamot" were introduced by Levi in his Biblical commentaries, where he endeavored to reconcile them with the text of the Law. Guided by the principle laid down but not always followed by Maimonides, that a philosophical or a moral teaching underlies every Biblical narrative, Levi adopted the method of giving the literal meaning and then of summing up the philosophical ideas and moral maxims contained in each section. The books of Job, Canticles, and Ecclesiastes are mainly interpreted by him philosophically. Jerusalem, according to him, symbolizes man, who, like that city, was selected for the service of God; "the daughters of Jerusalem" symbolize the faculties of the soul; and Solomon represents the intellect which governs all. Ḳohelet (Ecclesiastes) presents an outline of the ethics both of Aristotle and of his opponents, because moral truth can not be apodictically demonstrated. In opposition to the philosophical exegetes of his time, Levi, however, did not allegorize the historical and legislative parts of the Bible; but he endeavored to give a natural explanation of the miracles.

Opposition.

Levi's philosophical theories, some of which influenced Spinoza (comp. "Theologico-Politicus," ch. ii., where Spinoza uses Levi's own terms in treating of miracles), met with great opposition among the Jews. While Ḥasdai Crescas criticized them on philosophical grounds, others attacked them merely because they were not in keeping with the ideas of orthodoxy. Isaac ben Sheshet (Responsa, No. 45), while expressing admiration for Levi's great Talmudical knowledge, censures his philosophical ideas, which he considers to be heresies the mere listening to which is sinful in the eyes of a pious Jew. Abravanel (commentary on Josh. x.) blames Levi in the harshest terms for having been so outspoken in his heretical ideas. Some zealous rabbis went so far as to forbid the study of Levi's Bible commentaries. Among these were Messer Leon Judah and Judah Muscato; the latter, applying to them Num. i. 49, says: "Only thou shalt not number the tribe of Levi, neither bring his Commentaries among the children of Israel" (Commentary on the "Cuzari," p. 4). Shem-Ṭob perverted the title "Milḥamot Adonai" (= "Wars of God") into "Milḥamot 'im Adonai" (= "Wars with God"); and by this corrupted title Levi's work is quoted by Isaac Arama and by Manasseh ben Israel, who attack it in most violent terms.

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LEVI, HERMANN: Musical director; born at Giessen, Germany, Nov. 7, 1839; died at Munich May 13, 1900. His mother was a pianist of distinction. He studied under Vincenz Lachner at Mannheim (1852–1855), and at the Leipsic Conservatorium, principally under Hauptmann and Rietz (1855–58). In 1859 he became musical director at Saarbrücken, and in 1861 conductor of the German opera at Rotterdam, from which city he was summoned in 1864 to Carlsruhe, where in his capacity as court kapellmeister he aroused general attention by his masterly conducting of the "Meistersinger" (Feb., 1869).

In 1872 Levi received the appointment of court kapellmeister at Munich; and it was his thoroughly conscientious and excellent work here—notably his production of "Tristan and Isolde" in Nov., 1881—that induced Richard Wagner to select him as the conductor of "Parsifal" at the Bayreuth Music Festival of 1882. Appointed "General-Musikdirektor" at Munich in 1894, he resigned this position in 1896 owing to ill health, and was pensioned by the government.

As the foremost director of his time, Levi conducted the musical performances during the Bismarck-Feier and also on the occasion of the tricentenary celebration of the birth of Orlando di Lasso. He was the first to produce the trilogy "Der Ring der Nibelungen" after its performance at Bayreuth in 1876; and his masterly interpretation of the Wagnerian dramas contributed to make Munich for many years a permanent musical center for these works. Levi was a convert to Christianity.

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LEVI, ISAAC, YOM-ṬOB, and JACOB: Sons of Abigdor ha-Levi Laniatore of Padua; founded a Hebrew printing establishment at Rome in 1518, which received special privileges from the pope through the intercession of Cardinal Egidio di Viterbo. There Elijah Levita's ס' ההרכבה was printed within eighteen days (with imperfect letter-press, owing to haste, as the colophon complains); this was followed by his tables of inflections, now lost, and by his "Baḥur." The press soon closed. In 1525 Jacob