

The Times and Life of John Th. Desaguliers (1683-1744): Newtonian and Freemason

Steffen Ducheyne

Résumé

Jean Théophile Desaguliers (1683-1744) (né : Desaguilliers) a été à l'avant-garde de deux mouvements de plus en plus importants : le newtonianisme et la franc-maçonnerie. Desaguliers, membre de la Royal Society et ami personnel d'Isaac Newton, a composé de nombreux livres et articles scientifiques dans lesquels il a défendu la philosophie naturelle de Newton. Il a ainsi joué un rôle majeur dans la popularisation des idées de Newton. A Londres, Desaguliers a également été un personnage clé de la franc-maçonnerie : maître de la Grande Loge de Londres en 1719, il a été directement impliqué dans la réalisation du *The Constitutions of the Free-masons* de James Anderson (1723).

Citer ce document / Cite this document :

Ducheyne Steffen. The Times and Life of John Th. Desaguliers (1683-1744): Newtonian and Freemason. In: Revue belge de philologie et d'histoire, tome 87, fasc. 2, 2009. pp. 349-363;

doi : <https://doi.org/10.3406/rbph.2009.7676>

https://www.persee.fr/doc/rbph_0035-0818_2009_num_87_2_7676

Fichier pdf généré le 17/04/2018

The Times and Life of John Th. Desaguliers (1683-1744): Newtonian and Freemason

Steffen DUCHEYNE ⁽¹⁾

University of Ghent, Centre for Logic and Philosophy of Science

Postdoctoral Research Fellow of the Research Foundation (Flanders)

Despite John T. Desaguliers' importance to both the history of science and the history of the origins of Freemasonry ⁽²⁾ and notwithstanding the massive amount of non-scholarly material ⁽³⁾ that has been written about him, few scholarly articles provide a detailed account of his life, as an individual and Freemason, and his work, as a Newtonian philosopher. Desaguliers was not a deistic thinker nor a deistic Newtonian, as has been frequently claimed in the past. In the essay at hand, this situation is remedied, as all difficultly accessible material on the figure of Desaguliers is summoned together, ordered in a meaningful way and several new perspectives on his significance are provided ⁽⁴⁾. The range of material I consulted is, I suspect,

(1) The author is indebted to the Library and Museum of Freemasonry in London (<URL: <http://www.freemasonry.london.museum/library.php>>) for so kindly helping me with various requests for photocopies that were handled by Mr. Martin Cherry, Librarian of the Library and Museum of Freemasonry in London.

(2) George OLIVER, *The Revelations of A Square, Exhibiting a Graphic Display of Sayings and Doings of the Eminent Free and Accepted Masons, From the Revival in 1717 by dr. Desaguliers, to the Reunion in 1813 by their R.H. The Duke of Kent and Sussex*, New York, 1866, p. 1-15. See also Robert F. GOULD, *The History of Freemasonry*, London, Thomas C. Jack, 6 vol., 1887, vol. II, p. 287 (who stresses that his book is "derived from Official sources" [title-page]); Richard W. WEISBERGER, *The Cultural and Organizational Functions of Speculative Freemasonry During the Enlightenment. A Study of the Craft in London, Paris, Prague, and Vienna*, Collingdale, Diane Publishing Co., 1987; Margaret C. JACOB, *Living the Enlightenment: Freemasonry and Politics in Eighteenth-Century Europe*, Oxford, Oxford University Press, 1991; Jasper RIDLEY, *The Freemasons*, London, Constable, 1999; and, most recently, Margaret C. JACOB, *The Origins of Freemasonry: Facts and Fictions*, Philadelphia, University of Pennsylvania Press, 2006. In Montréal (Québec), the Loge *Jean-T.-Desaguliers* # 138 (G.R.Q.) was founded in 1999 (<URL: <http://www.jtdesaguliers.org>>).

(3) Especially on the internet many self-acclaimed historians are fiercely active. To give an idea: "Desaguliers" produces 28.100 hits on Google [retrieved on 3 September 2008]. Gould is right when he pleads for the following: "he [the historian of Freemasonry] must have received his information from tradition – from authentic monuments, original records, or the memoirs of more ancient writers – and therefore it is but just to acquaint his readers from whence he *actually* received it" (GOULD, *The History of Freemasonry*, vol. I, p. 249).

(4) As said above, much primary material comes from the Library and Museum of Freemasonry in London but also from Early English Books Online (<URL:<http://eebo.chadwyck.com/home>>) and Eighteenth-century Collections Online (<URL: <http://gale.cengage.com/EighteenthCentury>>).

nearly complete – as a by-product of this essay is therefore *synthetic* in nature: it gives an overview of all material currently available. First of all, his biographical data will be outlined. Next, his scientific activity and several scarcely consulted resources pertaining to his Freemasonry will be discussed. The author's aim is to scrutinize these sources so that a balanced picture of Desaguliers emerges.

Biographical Portrait ⁽⁵⁾

John Theophilus Desaguliers (born “Jean Théophile Desaguilliers”), a French Huguenot, was born in La Rochelle, a French harbour-city, on 12 March 1683 and died in London on 10 March 1744 ⁽⁶⁾. In 1694, following the revocation of the Edict of Nantes (1685), his family fled to Islington, near London. As the story goes, J.T. Desaguliers was smuggled on a refugee vessel to England in a barrel. According to his birth certificate, which I was able to retrieve, he was baptized on 7 March 1683. He learned Greek and Latin from his father Rev. John Desaguliers, who took orders in the Established Church of England ⁽⁷⁾. In 1709 at the age of 26, he obtained his B.A. at Christ Church in Oxford and in 1712 at age 29 his M.A. at Hart Hall (now: Hertford College), where he later replaced John Keill (1671-1721) ⁽⁸⁾, the famous mathematician. In 1712 he married Joanna Pudsey of Kidlington, near Oxford, at Shadwell. Two years later, he became third grand master of the Grand Lodge of the Order – he also wrote and is mostly known for the preface to James Anderson's (1678-1739) *The Constitutions of the Free-masons* (1723) ⁽⁹⁾. On James Anderson, Edward Newton notes that: “When or where Anderson was initiated into freemasonry is not known, but the

(5) See the entries “J.T. Desaguliers”, in Charles C. GILLISPIE, ed., *Dictionary of Scientific Biography*, New York, Scribner's sons, 16 vol., 1970-1980 [henceforth: *DSB*]; to a lesser extent, “J.T. Desaguliers”, in Daniel LIGOU, *Dictionnaire universel de la franc-maçonnerie: hommes illustres, pays, rites, symboles*, Paris, Éd. de Navarre, 2 vol., 1974, and Albert G. MACKEY, *Encyclopedia of Freemasonry and Its Kindred Sciences*, Chicago, The Masonic History Company, 2 vol., 1946. On the bibliographical details there is consensus amongst scholars. The following paper is highly relevant: Margaret E. ROWBOTTOM, “J.T. Desaguliers (1683-1744)”, in *Huguenot Society Proceedings*, vol. 21, 1965-1970, p. 196-218. This is an excellent study containing vital information – the only factual fault is that the author claims that Newton's *Principia* appeared in 1685 (*ibid.*, p. 196).

(6) A manuscript containing Desaguliers own biographical notes can be found in the Rawlinson mss (Bodleian Library at Oxford). See Dudley WRIGHT, *England's Masonic Pioneers*, Whitefish, Kessinger Publishing Company, 1925, p. 75-88.

(7) I am indebted to Miss Sylvie Denis, *Conservateur du Patrimoine*, in La Rochelle for providing me a scan of the birth certificate (non-indexed item, City-archives of La Rochelle).

(8) And not “James Keill” (1673-1719), the physician, as the *DSB* notes.

(9) JAMES ANDERSON, *The Constitutions of the Free-Masons, Containing the History, Charges, Regulations, &c. of that most Ancient and Right Worshipful FRATERNITY, For the Use of the LODGES*, London, Printed by William Hunter, for John Senex at the Globe, and John Hooke at the Flower-de-luce over-against St. Dunstan's Church, in Fleet-street, 1723, 93 p. Up until the present there is no conclusive evidence whether Desaguliers was involved in the composition of *The Constitutions*.

earliest records of lodges (Grand Lodge Minute Book, 1723-31) shows that in 1723 he was a member of a lodge which met at the Horn Tavern, one of the four old lodges which founded the Grand Lodge, and which now works as the Royal Somerset House and Inverness Lodge, No 4. In 1725 he is recorded as a member of The French Lodge which met at Solomon's Temple, Hemmings Row" (10).

In The Library and Museum of Freemasonry (London) ms. 1723 a draft of the *Constitutions* is preserved that might be in the handwriting of Desaguliers (11). On the frontispiece of Anderson's *Constitutions* (1723), John Montague, Duke of Montagu (1690-1749) is depicted presenting *The Constitutions* and the compass to Philip, Duke of Wharton (1698-1731). The figure on the right hand side is Desaguliers. The figure next to him resembles Isaac Newton (cf. the figure of his nose, eyebrows, forehead and chin), who would have been 81 years old at the time (cf. the wrinkles being depicted).

Desaguliers also composed the preface to Bernard Nieuwentyt's *The Religious Philosopher*, in which he wrote that "a *Philosopher* cannot be an *Atheist*" (12). In 1713/1714 he was invited by Newton to London to repeat his experiments on heat. In 1714 he became a Fellow of the Royal Society (13) (later on he became secretary of the society). In 1715 Desaguliers settled in Westminster (Channel Row (14)) and his first son was born – Marie Hauksbee was one of the sponsors at the baptism (Isaac Newton was godparent of Desaguliers' third son, John/Jean Isaac) (15). He was also a close friend of Samuel Clarke (1675-1729) and Stephen Gray (1666/7-1736) (16). In 1717, the same year in which he became curator of experiments at the Royal Society, he was perhaps initiated in the *No. 4 Lodge* of the Freemasons, but the exact place of initiation remains uncertain (17).

(10) Edward NEWTON, "Brethren who made Masonic History", in Harry CARR, ed., *The Collected Prestonian Lectures: 1961-1974*, Hertfordshire, The Garden City Press Limited Letchworth, 1984, vol. II, p. 46-57, p. 47 [this is an essential study on Desaguliers].

(11) Classmark: BE 94 GRA fol., 57 ff^o.

(12) Bernard NIEUWENTYT, *The religious philosopher: or, the right use of contemplating the works of the creator. Translated from the Low-Dutch [by J. Chamberlayne]. To which is prefix'd, a letter to the translator by J.T. Desaguliers*, London, Printed for J. Senex [a Freemason], over and against *St. Duncan's Church in Fleet-street*: E. Taylor in *Pater-noster-Row*: W. and J. Innys [a Freemason], at the West end of *St. Paul's Church-Yard*; and J. Osbourne in *Lombard-street*, 1724, 3rd edition (2 vol.), vol. II, p. VIII.

(13) Desaguliers' correspondence with Pemberton and Newton can be consulted in: Cambridge University Library, Add. Ms. 4007.56, items 669-684 ("copies of correspondence between John Theophilus Desaguliers, Henry Pemberton and Isaac Newton").

(14) Where he lived for three years (GOULD, *The History of Freemasonry*, vol. II, p. 349).

(15) ROWBOTTOM, "J.T. Desaguliers (1683-1744)". Desaguliers had three other sons: two sons bearing the same name: John Theophilus and another son called Thomas.

(16) And not "Grey" as Weisberger claims (Richard W. WEISBERGER, "J.T. Desaguliers: Promotor of the Enlightenment and of Speculative Masonry", in *Ars Quatuor Coronatorum*, vol. 113, 2000, p. 65-96).

(17) In that year he also preached a sermon before the king. See John Theophilus DESAGULIERS, *A sermon preach'd before the king, at Hampton-Court: on Sunday, Sept. 29th, 1717, etc.*, London, William Taylor, 1717, 23 p. (British Library location: 1568/1980).

Briefly after this period, he began publishing extensively on physics both in books and in the *Philosophical Transactions of the Royal Society* (see *infra*). In 1717 he published his *Physical and Mechanical Lectures*, in 1719 his *Lectures of Experimental Philosophy*, in 1724 his *Mechanical and Experimental Philosophy*, in 1725 his *An Experimental Course of Astronomy*, in 1734 his famous *A Discourse in Natural Philosophy*, and in 1742 his *Dissertation concerning Electricity*. In addition to that he also translated scientific works: Jacques Ozanam's *Treatise of Fortification* ⁽¹⁸⁾ (1711) and his *A treatise of gnomonicks* (1712) ⁽¹⁹⁾, Nicolas Gauger, *Fires improv'd* (1715) ⁽²⁰⁾, Edmé Mariotte's *The motion of water, and other fluids* (1718) ⁽²¹⁾, Archibald Pitcairn's *Opera omnia* (1727) ⁽²²⁾ and 's Gravesande's *Mathematical Elements of Natural Philosophy* (1747) ⁽²³⁾. He also wrote a preface to M. Vaucanson's *An Account of the Mechanism of an Automaton* (1742) and an appendix to David Gregory's *Elements of Catoptrics and Dioptrics* (1742) ⁽²⁴⁾. Desaguliers also travelled and stayed abroad: in 1731 he remained for several years in The Hague (1730-1732), where he was Worshipful Master of a Lodge (as

(18) Jacques OZANAM, *A treatise of fortification, containing the ancient and modern method of the construction and defense of places. And the manner of carrying on sieges, Done into English, and amended in several places, by J. T. Desaguliers*, Oxford, Printed by L. Lichfield, for John Nicholson at the Queen's Arms in Little Britain, and Sold by John Morphew near Stationer's Hall, 1711, 270 p.

(19) Jacques OZANAM, *A treatise of gnomonicks, or dialling, Done into English, and amended in several places, by J. T. Desaguliers*, Oxford, Printed by L. Lichfield, for John Nicholson at the Queen's Arms in Little Britain, and Sold by John Morphew near Stationer's Hall, 1712, 244 p.

(20) Nicolas GAUGER, *Fires improv'd: being a new method of building chimneys, so as to prevent their smoaking, Written in French, by Monsieur Gauger: made English and improved, by J. T. Desaguliers, By whom is added, the manner of making coal-fires, as useful this new-way, as the wood-fires propos'd by the French author*, London, printed for J. Senex at the Globe in Salisbury Court, and E. Curll, at the Dial and Bible against St. Duncan's Church in Fleet-Street, 1715, 186 p.

(21) Edmé MARIOTTE, *The motion of water, and other fluid, Being a treatise of hydrostatics, Written originally in French, by the late Monsieur Marriotte, Together with a little treatise of the same author, giving practical rules for fountains, By J.T. Desaguliers*, London, Printed for J. Senex, and W. Taylor, 1718, 337 p.

(22) Archibald PITCAIRN, *The whole works of Dr. Archibald Pitcairn, published by himself. Wherein are discovered, the true foundation and principles of the art of physic. With cases and observations upon most distempers and medecines, Done from the Latin original by George Sewell, M.D. and J. T. Desaguliers, LL.D. and F.R.S*, London, Printed for E. Curll in the Strand, J. Pemberton in Fleet-Street, and W. and J. Innys at the West-End of St. Paul's, 1727, 2nd edition, 279 p.

(23) Willem Jacob 's GRAVESANDE, *Mathematical elements of natural philosophy, confirm'd by experiments; or, an introduction to Sir Isaac Newton's philosophy, Written in Latin by William-James 's Gravesande, Translated into English by J. T. Desaguliers*, London, Printed for J. Senex in Fleetstreet, W. Innys, in St. Paul's Churchyard; and J. Osborn and T. Longman in Paster-noster-Row, 1731, 4th edition (2 vol.), 666 p. A epilogue that is worth mentioning is Benjamin Worster's preface ("A Epilogue to Dr. Desaguliers's Course of Experimental Philosophy, made and spoke by his Operator Benjamin") in *Tunbrigialia: or, Tunbridge miscellanies, for the year 1730*, London, Printed for T.B. and sold at the Booksellers and Pamphlet-Shops of London and Westminster, 1730, 67 p., p. 1-2.

(24) David GREGORY, *Dr. Gregory's Elements of catoptrics and dioptrics, Translated from the Latin original, with a large supplement, by William Browne, To which is added, an appendix, by J.T. Desaguliers*, London, Printed for E. Curll, 1735, 2nd edition, 315 p.

he was in Paris) which was installed for the purpose of initiating the Duke of Lorraine, who was subsequently Grand Duke of Tuscany and Emperor of Austria as well as of Germany – thereby introducing Freemasonry into the Netherlands⁽²⁵⁾. John Toland resided in The Hague at the time. Desaguliers died in the Bedford Coffee House in Covent Garden in 1744.

What were the main preoccupations of this ambitious, small and plump looking man with asymmetrically posited eyes depicted by James Tookey in 1725? Two activities immediately draw the historian's attention: his work as a natural philosopher (discussed in the third section) and his work as a Freemason (discussed in the fourth section).

Desaguliers as a Newtonian Philosopher: “By Newton’s help, ‘tis evidently seen Attraction governs all the World’s Machine”⁽²⁶⁾

According to J.T. Desaguliers, three-time winner of the (Godfrey) Copley Medal⁽²⁷⁾, the greatest distinction awarded by the Royal Society, the “business” of a science is to “contemplate the Works of GOD, to discover Causes from their Effects⁽²⁸⁾, and [to] make Art and Nature subservient to the Necessities of Life, by a Skill in joining proper Causes to produce the most useful Effects”⁽²⁹⁾. After he settled in London in 1713, where he earned his living as a lecturer in natural philosophy, he became a fierce proponent of Newtonian natural philosophy⁽³⁰⁾ – as is clear from his *A Course of*

(25) NEWTON, “Brethren who made Masonic History”, p. 50.

(26) J.T. DESAGULIERS, *The Newtonian System of the world, the best Government: an Allegorical poem*, London, Printed by A. Campbell, for J. Roberts in Warwick Lane; and Sold by the Booksellers of London and Westminster, 1728, p. 30.

(27) See: <http://www.royalsoc.ac.uk/page.asp?id=1744> and M. Yakup BEKTAS and Maurice CROSLAND, “The Copley Medal: The Establishment of a Reward System in the Royal Society, 1731-1839”, in *Notes and Records of the Royal Society of London*, vol. 46, 1992, n° 1, p. 43-76.

(28) The causal underpinnings in Newton’s natural philosophy were crucial, see: Steffen DUCHEYNE, “Newton’s Training in the Aristotelian Textbook Tradition: From Effects to Causes and Back”, in *History of Science*, vol. 43, 2005, n° 3, p. 217-237.

(29) J.T. DESAGULIERS, *A Course in Natural Philosophy*, London, Printed for John Senex, in Fleetstreet; W. Innys and Richard Manby, in St. Paul’s Church-Yard; and John Osborn and Thomas Longman in Pater-noster Row, 1734 (2 vols.), vol. I, unnumbered, [p. i]. There is also a Dutch version of this work: J.T. DESAGULIERS, *De natuurkunde uit ondervindingen opgemaakt*, Amsterdam, Isaak Tirion, 1751 (3 vol.). On Desaguliers’s causal stance see his *Lectures of Natural Philosophy*, London, Printed for W. Mears, B. Creake and J. Sackfield, 1719, p. 1-2. Willem ’s Gravesande was Desaguliers’s most famous pupil.

(30) Larry STEWART, “The Selling of Newton: Science and Technology in Early Eighteenth-Century England”, in *The Journal of British Studies*, vol. 25, 1986, n° 2, p. 178-192; Jeffrey R. WIGELSWORTH, “Competing to popularize Newtonian philosophy – John Theophilus Desaguliers and the preservation of reputation”, in *Isis*, vol. 94, 2003, n° 3, p. 435-455; and Jean-François BAILLON, “Early Eighteenth-Century Newtonianism: the Huguenot contribution”, in *Studies in History and Philosophy of Science*, vol. 35, 2004, n° 3, p. 533-548. On Desaguliers’ technical work, see Carlo PONI, “The Craftsman and the Good Engineers: Technical Practice and Theoretical Mechanics in J. T. Desaguliers”, in *History of Technology*, vol. 10, 1993, n° 4, p. 215-232.

Experimental Philosophy (1734). Therein he noted how he was drawn to Newtonianism:

About the Year 1713 I came to settle in London, where I have with great pleasure seen the Newtonian Philosophy so generally received among Persons of all Ranks and Professions, and even the Ladies, by the Help of Experiments; that tho' several ingenious Men have since that Time with great Success taught (and so still teach) Experimental Philosophy in my (or rather Dr. Keill's manner, I have had as many Courses as I could possibly attend; the present Course, which I am now engag'd in being the 121st since [amongst his pupils were 's Gravesande and Demainbray] I began at Hart Hall in Oxford in the Year 1710. (31)

Desaguliers took over Keill's stress on the importance of experimental evidence and demonstration in the teaching of natural philosophy⁽³²⁾. He believed that natural philosophers can learn by observing skilled craftsmen who often do not understand that they are imitating mechanical principles⁽³³⁾. He noted that "[n]o disputes arise in pure Mathematics, because the Definitions of the Terms are premis'd; and every Body that reads a Proposition has the same Idea of every Part of it"⁽³⁴⁾. In mix'd mathematics "we cannot give such just Definitions as the Geometers or Logicians do: *We must be content with Descriptions, and they will be of the same Use as Definitions, provided that we are always consistent with our selves*"⁽³⁵⁾. With Newton's mathematical philosophy at hand, Cartesianism was refuted:

For, as many Causes concur in the Production of compound Effects, we are liable to mistake the predominant Cause, unless we can measure the Quantity of the Effects produc'd, compare them with, and distinguish them from each other, to find out the adequate Cause of each single Effect, and what must be the Result of their Action. When Mons. Des Cartes's philosophical Romance, by the Elegance of its Style and the plausible Accounts of natural Phaenomena, had overthrown the Aristotelian Physicks, the World receiv'd but little Advantage by the Change: For instead of a few Pedants, who, most of them, being conscious of their Ignorance, conceal'd it with hard Words and pompous Terms; a new Set of Philosophers started up, whose lazy Disposition easily fell in with a Philosophy, that required no Mathematicks to understand it; and who taking a few Principles for granted, without examining their Reality or Consistence with each other, fancied they could solve all Appearances Mechanically by Matter and Motion; and, in their smattering Way, pretended to demonstrate such things, as perhaps Cartesius himself never believ'd; his Philosophy (if he had been earnest) being unable to stand the Test of the Geometry which he was Master of. (36)

(31) DESAGULIERS, *A Course in Natural Philosophy*, vol. I, unnumbered [p. vi].

(32) WIGELSWORTH, "Competing to popularize Newtonian philosophy – John Theophilus Desaguliers and the preservation of reputation", p. 439.

(33) Margaret C. JACOB, *The Radical Enlightenment, Pantheists, Freemasons and Republicans*, London, George Allen & Unwin, 1981, p. 123. On Desaguliers's contributions to technology and machinery, see: Richard William WEISBERGER, "J.T. Desaguliers: Newtonian Experimental Scientist", in *Heredom*, vol. 7, 1998, p. 207-246.

(34) DESAGULIERS, *A Course in Natural Philosophy*, vol. I, *Lect. I*, p. 1.

(35) *Ibidem*, vol. I, *Lect. I*, p. 2 [emphasis added].

(36) *Ibidem*, vol. I, [p. i-ii].

Desaguliers endorsed the view that we can only establish true causes if we measure the quantities of the effects produced till we come down to the adequate cause. He rejected the attempt of others to study nature in strictly mechanical terms and without proper knowledge of mathematics. Sir Isaac Newton provided us with a new astronomy, physics and optical theory:

It is to Sir Isaac Newton's Application of Geometry to Philosophy, that we owe the routing of this Army of Goths and Vandals in the philosophical World; which he has enrich'd with more and greater Discoveries, than all the Philosophers that went before him: And has laid down such Foundations for future Acquisitions; that even after his Death, his Works still promote natural Knowledge. Before Sir Isaac, we had but wild Guesses at the Cause of the Motion of the Comets and Planets round the Sun; but now he has clearly deduc'd them from the universal Laws of Attraction (the Existence of which he has prov'd beyond contradiction) and has shewn, that the seeming Irregularities of the Moon, which Astronomers were unable to express in Numbers, are but just Consequences of the Actions of the Sun and Earth upon it, according to their different Positions. [...] Our incomparable Philosopher has discovered and demonstrated to us the true Nature of Light and Colours in the Mixture of Light and Shadows, Sir Isaac Newton found that they were congenial with the Rays of the Sun, and contain'd in Light it self; (37)

Newtonian science was also fruitful for non-scientists, i.e. to philosophers, Desaguliers observed. John Locke (1632-1704), with the help of Christiaan Huygens (1629-1695), was the first to become a true Newtonian philosopher:

The great Mr. Locke was the first who became a Newtonian Philosopher without the Help of Geometry; for having asked Mr. Huygens, whether all the mathematical Propositions in Sir Isaac's Principia were true, and being told he might depend upon their Certainty; he took them for granted, and carefully examined the Reasonings and Corollaries drawn from them, became Master of all the Physicks, and was fully convinc'd of the great Discoveries contain'd in that Book: Thus also he read the Opticks with Pleasure, acquainting himself with every thing in them was not merely mathematical. [*This I was told several times by Sir Isaac Newton himself.] (38)*

Newton's greatest discovery was obviously universal gravitation of which the cause is yet unknown and which Desaguliers characterised in the following terms:

Gravity may be look'd upon as a Property of Matter, which tho' not essential, is yet universal, and in one Sense inseperable from it; that is, all Parcels of Matter, however modified, (or all Bodies) have a Gravitation or Attraction towards one another; as will be hereafter demonstrated in Respect of heavenly, as well as to terrestrial Bodies: The Tendency of heavy Bodies toward the Center of the Earth, being owing to the same Cause, that makes the Sun and Planets tend towards one another. N B. *When we use the Words Gravity, Gravitation, or Attraction; we have a Regard not to the Cause, but*

(37) *Ibidem*, vol. I, [p. iii].

(38) *Ibidem*, vol. I, [p. iv].

to the Effect; namely to that Force, which Bodies have when they are carried towards each other; which (at equal distances) is always proportionable to their quantity of Matter; whether it be occasion'd by the Impulsion of any subtile Fluid, or by any unknown and unmechanical Power concomitant to all Matter. (39)

The effects of universal gravitation are proportional to the quantity of matter and apply to both terrestrial and celestial bodies⁽⁴⁰⁾. According to Desaguliers, there were two principal forces *in rerum natura*: attraction and repulsion. The law of universal gravitation is founded on observation and on the laws of motion. On Newton's first law of motion, according to which "[e]very Body perseveres in a State of Rest, or uniform Motion in a right Line, unless it be compell'd to change that State by Forces impress'd thereon" (41), he commented as follows:

We see plainly that there must be some extrinsecal Agent or Power not essential or belonging of necessity to the Body, to put it into Motion: but we don't so readily perceive that a Body in Motion would continue to move for ever without the action of an extrinsecal Agent, because we see Bodies here on Earth gradually lose their Motions, and for want of attending to all the Causes that destroy the Motions of Bodies, we often imagine that Motion languishes and at last quite perishes of itself. But if we consider what external Causes retard and destroy Motion, we shall soon perceive that *if those Causes were remov'd, a Body once put into Motion in any Direction wou'd continue in that Motion and Direction for ever.* (42)

So the celestial and terrestrial motions are counterfactually depended on an impressed force: if such force were not acting we would observe uniform rectilinear motions instead. Desaguliers then went over to a brief discussion of the second law according to which "[t]he Change of Motion is always proportionable to the moving Force impressed; and it is made in the right Line in which that Force is impress'd" (43) and the third law according to which "[t]o every Action there is always oppos'd an equal Reaction; or the mutual Actions of two Bodies upon each other, are always equal, and directed to contrary Parts" (44). On the third law, Desaguliers dryly noted that "[t]his Law takes place also in Attraction" (45) (this was a controversial claim (cf. Roger Cotes' criticism)). Desaguliers' presentation bears no sign of this controversy.

After the publication of the *Principia* in 1687, many followers of Newton joined forces. Desaguliers was part of the first generation of Newtonians. In his two papers on the figure of the earth, he noted that he wished to

(39) *Ibidem*, vol. I, *Lect. I*, p. 6.

(40) Steffen DUCHEYNE, "Newton's Notion and Practice of Unification", in *Studies in History and Philosophy of Science*, vol. 36, 2006, n° 1, p. 61-78 (p. 67, 70 and 76).

(41) DESAGULIERS, *A Course in Natural Philosophy*, vol. I, *Lect. V*, p. 284.

(42) *Ibidem*, vol. I, *Lect. V*, p. 285 [emphasis added].

(43) *Ibidem*, vol. I, *Lect. V*, p. 317.

(44) *Ibidem*, vol. I, *Lect. V*, p. 356.

(45) *Ibidem*.

deduce the figure of the earth by deducing it from Newton's principles⁽⁴⁶⁾. He concluded this paper as follows:

Tho' Sir Isaac Newton, in his *Principia*, has not endeavour'd to give the Cause of Gravity, or to determine whether it be owing to an impulse or not; yet he has shewn what its Effects and Laws are, from plain Experiments made by others and himself, From the Laws of Gravity, and from the Observation of a Comet, he has deduced the Annual Motion of the Earth; and it must have a Diurnal Motion, if it has an Annual one, otherwise, it will not agree with the *Phænomena*.⁽⁴⁷⁾

Desaguliers was an ardent defendant of Newton's optical and mechanical theories and wrote nearly 50 articles in the *Transactions*. Here we shall focus on the mechanical and the optical material, since pondering on his experiments with electricity and magnetism will add nothing further on Desaguliers' Newtonianism (these papers are given in footnotes)⁽⁴⁸⁾. In one

(46) J. T. DESAGULIERS, "An Experiment to Illustrate What Has Been Said in the Philosophical Transactions, No. 386, 387, 388, concerning the Figure of the Earth", in *Philosophical Transactions (1683-1775)*, vol. 33, 1724-1725, p. 201-222 ; J. T. DESAGULIERS, "A Dissertation concerning the Figure of the Earth. Part the Second", vol. 33, 1724-1725, p. 277-304 (p. 297-298).

(47) DESAGULIERS, "A Dissertation concerning the Figure of the Earth. Part the Second", p. 222.

(48) Ordered chronologically: J.T. DESAGULIERS, "An Account of Some Experiments of Light and Colours, Formerly Made by Sir Isaac Newton, and Mention'd in His Opticks, Lately Repeated before the Royal Society", in *Philosophical Transactions (1683-1775)*, vol. 29, 1714-1716, p. 433-447 ; ID., "An Account of Some Experiments of Light and Colours, Formerly Made by Sir Isaac Newton, and Mention'd in His Opticks, Lately Repeated before the Royal Society", in *Philosophical Transactions (1683-1775)*, vol. 29, 1714-1716, p. 433-447 ; ID., "Plain and Easy Experiment to Confirm Sir Isaac Newton's Doctrine of the Different Refrangibility of the Rays of Light", in *Philosophical Transactions (1683-1775)*, vol. 29, 1714-1716, p. 448-452 ; ID., "An Account of Some Experiments Made on the 27th Day of April, 1719 to Find How Much the Resistance of the Air Retards Falling Bodies", in *Philosophical Transactions (1683-1775)*, vol. 30, 1717-1718, p. 1071-1078 ; ID., "Remarks on Some Attempts Made towards a Perpetual Motion", in *Philosophical Transactions (1683-1775)*, vol. 31, 1721-1722, p. 81-82 ; ID., "Experiments Relating to the Resistance of Fluids, Made before the Royal Society on Thursday, March the 30th, 1721", in *Philosophical Transactions (1683-1775)*, vol. 31, 1720-1721, p. 142-144 ; ID., "An Account of an Experiment Made on Thursday the Last Day of June, 1720, before the R. Society, to Shew by a New Proof, That Bodies of the Same Bulk Do Not Contain Equal Quantities of Matter, and Therefore That There is an Interspers'd Vacuum", in *Philosophical Transactions (1683-1775)*, vol. 31, 1721-1722, p. 234-239 ; ID., "An Account of Some Experiments Made to Prove, That the Force of Moving Bodies is Proportionable to Their Velocities: (Or Rather That the Momentum of Moving Bodies is to be Found by Multiplying the Masses into the Velocities) In Answer to Such Who Have Sometime Ago Affirm'd, That That Force is Proportionable to the Square of the Velocity, and to Those Who Still Defend the Same Opinion", in *Philosophical Transactions (1683-1775)*, vol. 32, 1722-1723, p. 269-279 ; ID., "Animadversions upon Some Experiments Relating to the Force of Moving Bodies; with Two New Experiments on the Same Subject", in *Philosophical Transactions (1683-1775)*, vol. 32, 1722-1723, p. 285-290 ; ID., "An Experiment to Illustrate What Has Been Said in the Philosophical Transactions", p. 344-345 ; ID., "A Dissertation concerning the Figure of the Earth. Part the Second", in *Philosophical Transactions (1683-1775)*, vol. 33, 1724-1725, p. 277-304 ; ID., "A Dissertation concerning the Figure of the Earth", in *Philosophical Transactions (1683-1775)*, vol. 33, 1724-1725, p. 201-222 ; ID., "The Dissertation concerning the Figure of the Earth Continued",

paper Desaguliers defended the Newtonian view that the quantity of forces is proportional to m and v (and not to m and v^2 , as Leibniz claimed) by means of several experiments⁽⁴⁹⁾. One such experiment proceeds as follows: let a balance of which the *fulcrum* is so divided that the distance of the first *brachium* is $\frac{1}{4}$ of that of the second (a weight 100 pounds is attached to the first *brachium* and to the second *brachium* a weight of 25 pounds). In this case the *fulcrum* (at C) is in equilibrium (by the law of the lever: $w_1 \cdot d_1 = w_2 \cdot d_2$, i.e. $100 \cdot \frac{1}{4} = 25 \cdot 1$). Now, assuming that the quantity of forces is proportional to m and v^2 , “the twenty five Pound Weight should have been suspended at D, only twice as far from C, as the Weight at A”⁽⁵⁰⁾.

in *Philosophical Transactions (1683-1775)*, vol. 33, 1724-1725, p. 239-255 ; ID., “Some Experiments concerning the Cohesion of Lead”, in *Philosophical Transactions (1683-1775)*, vol. 33, 1724-1725, p. 345-347 ; ID., “A Proposition on the Balance, Not Taken Notice of by Mechanical Writers, Explain’d and Confirm’d by an Experiment before the Royal Society”, in *Philosophical Transactions (1683-1775)*, vol. 36, 1729-1730, p. 128-134 ; ID., “An Account of an Experiment Made on Thursday the Last Day of June, 1720. before the R. Society, to Shew by a New Proof, That Bodies of the Same Bulk Do Not Contain Equal Quantities of Matter, and Therefore That There is an Interspers’d Vacuum”, in *Philosophical Transactions (1683-1775)*, vol. 31, 1721-1722, p. 234-239 ; ID., “An Experiment to Shew That the Friction of the Several Parts in a Compound Engine, May Be Reduced to Calculation; By Drawing Consequences from Some of the Experiments Shewn before the Royal Society Last Year, upon Simple Machines, in Various Circumstances, by Me. Now Exemplified by the Friction in a Combination of Pullies”, in *Philosophical Transactions (1683-1775)*, vol. 37, 1731-1732, p. 292-293 ; ID., “An Account of Two Experiments of the Friction of Pullies”, in *Philosophical Transactions (1683-1775)*, vol. 37, 1731-1732, p. 394-396 ; ID., “An Account of Some New Statical Experiments”, in *Philosophical Transactions (1683-1775)*, vol. 40, 1737-1738, p. 62-68 ; ID., “An Extract from the Journal Books of the Royal Society, concerning Magnets Having More Poles Than Two”, in *Philosophical Transactions (1683-1775)*, vol. 40, 1737-1738, p. 62-68 ; ID., “Some Thoughts and Experiments concerning Electricity”, in *Philosophical Transactions (1683-1775)*, vol. 41, 1739-1741, p. 175-185 ; ID., “Some Thoughts and Conjectures concerning the Cause of Elasticity”, in *Philosophical Transactions (1683-1775)*, vol. 41, 1739-1741, p. 175-185 ; ID., “Experiments Made before the Royal Society, Feb. 2. 1737-8”, in *Philosophical Transactions (1683-1775)*, vol. 41, 1739-1741, p. 193-199 ; ID., “An Account of Some Electrical Experiments Made before the Royal Society on Thursday the 16th of February 1737-8”, in *Philosophical Transactions (1683-1775)*, vol. 41, 1739-1741, p. 200-208 ; ID., “An Account of Some Electrical Experiments Made at His Royal Highness the Prince of Wales’s House at Cliefden, on Tuesday the 15th of April 1738. Where the Electricity Was Conveyed 420 Feet in a Direct Line”, in *Philosophical Transactions (1683-1775)*, vol. 41, 1739-1741, p. 209-210 ; ID., “Some Things concerning Electricity”, in *Philosophical Transactions (1683-1775)*, vol. 41, 1739-1741, p. 634-637 ; ID., “An Account of Some Electrical Experiments Made before the Royal Society, on Thursday the 22d of January 1740-1741”, in *Philosophical Transactions (1683-1775)*, vol. 41, 1739-1741, p. 637-639 ; ID., “Electrical Experiments Made before the Royal Society, on Thursday, March 15th 1740-1”, in *Philosophical Transactions (1683-1775)*, vol. 41, 1739-1741, p. 639-640 ; ID., “Some Further Observations concerning Electricity”, in *Philosophical Transactions (1683-1775)*, vol. 42, 1742-1743, p. 383-384. Also see: N. J. WADE, “Jean Theophile Desaguliers (1683-1744) and Eighteenth Century Vision Research”, in *British Journal of Psychology*, vol. 91, 2000, n° 2, p. 275-285 and WEISBERGER, “J. T. Desaguliers: Newtonian Experimental Scientist”.

(49) DESAGULIERS, “An Account of Some Experiments Made to Prove, That the Force of Moving Bodies is Proportionable to Their Velocities”.

(50) DESAGULIERS, “An Account of Some Experiments Made to Prove, That the Force of Moving Bodies is Proportionable to Their Velocities”, p. 271-272. Cf. DESAGULIERS, “Animadversions upon some Experiments relating to the Force of moving Bodies”, p. 285-290.

Desaguliers also raised the issue whether the cohesion of two balls of lead does not prove “the Doctrine of Attraction, your late president Sir *Isaac Newton*; and that there is a universal Attraction between the Parts of Matter in Nature, though some at such small Distances as to escape our Observations[?]”⁽⁵¹⁾. Whatever the cause of these attractions is: “yet most learned Men, of several Nations, would rather charge such Manifest Qualities and Operations of Nature with the Nick-Name of occult Qualities, than give the Honour to the *great discoverer (who is no more)* of those manifest Qualities and Principles of Motions”⁽⁵²⁾.

Desaguliers also replaced Newton’s *experimentum crucis* by a more simple experiment “so easy to be made, that by it those who want the *Apparatus* (or are unwilling to be at the pains) to make the *Experimentum Crucis*”⁽⁵³⁾, may at any time satisfy themselves on the Truth of the fore-mention’d Doctrine”⁽⁵⁴⁾. A candle is placed in front of a “Chimney Looking Glass” and an observer looks at the glass from points close to the candle. These points are equidistant. The observer will notice that with two eyes open the spectrum of image of the candle will appear double, but not so that an intermediary colour will be seen; when the observer looks at the image of the candle only one colour will be seen⁽⁵⁵⁾. This suffices, says Desaguliers, to prove the truth of the doctrine of the heterogeneity of white light.

Desaguliers’ main task lay in providing easy reproducible experiments to substantiate Newton’s natural philosophy by means of fitting experiments. There is no doubt that he contributed significantly to the diffusion of Newtonianism. He was also one of the first Freemasons and this topic we shall discuss in the following section.

Desaguliers as a Freemason

As is commonly known, Desaguliers was one of the leading protagonists in the beginnings of Freemasonry⁽⁵⁶⁾. Richard W. Weisberger claims that “the intellectually versatile Desaguliers played a prominent role in injecting Deistic, Newtonian, Palladian and other enlightenment tenets into the degree

(51) DESAGULIERS, “QUERIES, concerning the Cause of Cohesion of the Parts of Matter”, p. 39.

(52) *Ibidem*, p. 42.

(53) DESAGULIERS, “An Account of Some Experiments of Light and Colours”.

(54) DESAGULIERS, “A Plain and Easy Experiment to Confirm Sir Isaac Newton’s Doctrine of the Different Refrangibility of the Rays of Light”, p. 448.

(55) *Ibidem*, p. 449.

(56) James ANDERSON, *The Constitutions of the Ancient and Honourable Fraternity of Free and Accepted Masons, containing their history, charges, regulations, &c. ... for the use of the lodges*, London, Printed for Brothers Cæsar Ward and Richard Chandler; and sold at their shops in York, and at Scarborough-Spaw, 1738, 2nd edition, p. 125-135, p. 204. See especially: GOULD, *The History of Freemasonry*, p. 249-400 (p. 339-345). One should keep in mind that other protagonists in this process adhered to different religious views. Early Freemasonry was not a uniform movement.

system of English speculative Freemasonry”⁽⁵⁷⁾. This claim does not stand close scrutiny. For starters: the “deistic” elements that Weisberger mentions are not at all deistic⁽⁵⁸⁾. Newton’s circle (and Newton himself) did not adhere to the view that God is, once he has installed the laws of nature, absent in his creation. Quite on the contrary, they endorsed the view that God was omnipresent and substantially present in space and time. For Newton God’s omnipotence was not limited to *potentia ordinata* but also included *potentia absoluta*. That a “Supreme Architect” played a crucial role in Desaguliers’ and Anderson’s thought is correct; however, this notion is perfectly compatible with Newton’s theology. Finally it is quite strange that Weisberger considers Desaguliers as an Enlightenment figure, as early-eighteenth-century currents do not fall under the label of Enlightenment. Perhaps Weisberger meant that Desaguliers is a forerunner of this movement, but without careful analysis those claims remain doubtful.

As noted above, in 1717 he was most likely initiated in the *No. 4 Lodge* in London – although no records of this survive⁽⁵⁹⁾. He maintained a lifelong interest and part in the organisation of the lodge⁽⁶⁰⁾. He especially was involved in several fund-raising campaigns for charity⁽⁶¹⁾ and discussions on *regalia*⁽⁶²⁾. For instance, he defended the view that “none but the Grand Master, his Deputy and Wardens shall wear their Jewels in gold or Gilt pendant to blue Ribbons about their Necks and white Leather Aprons lined with blue Silk”⁽⁶³⁾. Despite the open-door policy of the Library and Museum of Freemasonry in London, few scholars have consulted its archival treasures. Here we analyse some material that is not easily consultable⁽⁶⁴⁾. Desaguliers

(57) WEISBERGER, “J.T. Desaguliers: Promotor of the Enlightenment and of Speculative Masonry”, p. 65. Cf. his statement that: “as a result of Desaguliers’s efforts, important Enlightenment tenets became embodied in the degrees of speculative Freemasonry. In the Entered Apprentice degree, which centres on the building of King Solomon’s Temple, references to these tenets are made. Allusion is made to Newtonian Laws of gravity and motion [...]. The fellow Craft degree is particularly distinguished by its abundance of Enlightenment concepts. The significance of studying the liberal arts and physical sciences is emphasised in this degree” (*ibidem*, p. 70, cf. p. 68 and 71).

(58) Weisberger writes: “the Supreme Architect Who, in *deistic* terms, is perceived as being *omnipotent and omniscient*” [emphasis added] (*ibidem*, p. 71). This is a *contradictio in terminis*.

(59) John STOKES, “Life of John Theophilus Desaguliers”, in *Transactions of Quatuor Coronati Lodge No. 2076*, vol. 38, 1925, p. 285-308 (p. 296).

(60) *Ibidem*, p. 297.

(61) *Ibidem*, p. 299-300.

(62) *Ibidem*, p. 301.

(63) W.J. SONDHURST, ed., “[Minutes of the Grand Lodges]”, in *Quatuor Coronatorum Antigraphia*, vol. 10, 1913 quoted in STOKES, “Life of John Theophilus Desaguliers”, p. 301.

(64) The documents I have consulted are: WRIGHT, *John Theophilus Desaguliers*; STOKES, *Life of John Theophilus Desaguliers*; WEISBERGER, “J.T. Desaguliers: Promotor of the Enlightenment and of Speculative Masonry”; Duncan C. LEE, *Desaguliers of No. 4 and his services to freemasonry, A short address given to the Royal Somerset House and Inverness Lodge No. 4 acting by immemorial constitution, October 26th, 1931*, London, n.p.p., 1932, 28 p.; Jean TORLAIS, *Un Rochelais grand-maitre de la Franc-maçonnerie et physicien au XVIII^e siècle*, La Rochelle, Pijollet, 1937; and Cyril Northwood BATHAM, *M.W. Bro Dr. Jean T. Desaguliers, Grand Master of the Grand Lodge of England*, London, n.p.p. 1990, 8 ff°.

was member (as his friend James Anderson) in *Lodge No 2* which met at the Horn Tavern, and was Master of the French Lodge at Solomon's Temple, Hemmings Row⁽⁶⁵⁾. He was also Master of the *Lodge of Antiquity*, then *No 1* now *No 4*, in 1723 and 1724⁽⁶⁶⁾. In the 1731 List of Lodges he appears as a member of the Bear and Harrow Lodge (now the *St. George's and Corner Stone Lodge, No 5*) and in the same List he is shown among the members of *University Lodge, No 74*, which went out of existence in 1736⁽⁶⁷⁾. The Grand Lodge of London was founded in 1717 when four Lodges or Assemblies merged together⁽⁶⁸⁾. Christopher Wren presided as Grand Master⁽⁶⁹⁾. On the website of the Regular Grand Lodge of London one reads:

The dates of constitutions of those "lodges" are found for the first time in an Engraved List of Lodges or more precisely "A List of Regular Lodges according to their Seniority & Constitution["]", printed in 1729, i.e., nine years before the publication of the Book of Constitutions of 1738: According to this list, the date of constitution of the original *No. 1 lodge* which met at Goose and Gridiron [it should be Gridion], St. Paul's Church-yard in and at King's Arms, St. Paul's Church-yard in 1729 is given as 1691⁽⁷⁰⁾; That of the original *No. 2 lodge* which met at Crown, Parker's Lane and at Rose and Buffalo, Furnival's Inn, Holborn in 1729 is 1712⁽⁷¹⁾; That of the original *No. 3 lodge* which met at Apple Tree Tavern, Charles Street and at Queen's Head, Knave's Acre in 1729 is February 27, 1723⁽⁷²⁾; That of the original *No. 4 lodge* which met at Rummer and Grapes, Channel Row and at Horn Tavern, Westminster in 1729 is not given⁽⁷³⁾.⁽⁷⁴⁾

In 1719 Desaguliers became Grand Master of the Grand Lodge. Gould notes that the first official record of Desaguliers's membership is in 1723, but that he certainly was a member of some lodges before 1723⁽⁷⁵⁾.

No. 4 Lodge came together in the Rummer & Grapes Inn (in Channel Row, now called "Cannon Row", which runs between the Thames and Parliament Street) and at Horn Tavern, Westminster (also known as the "Horn Coffee House" which lies off Carter Lane on the south-side of St. Paul's Churchyard)⁽⁷⁶⁾. He also visited a lodge in Edinburgh, the *Edinburgh*

(65) STOKES, "Life of John Theophilus Desagulier", p. 301.

(66) W. Harry RYLANDS, "Records of the Lodge of Antiquity", London, n.p.p., vol. 1, 1911, no.2, p. 7-8.

(67) STOKES, "Life of John Theophilus Desaguliers", p. 49 [italics added].

(68) JACOB, *The Origins of Freemasonry*, p. 11.

(69) *Ibidem*, p. 16.

(70) Wren was a member of this lodge between 1691 and 1709 (David STEVENSON, *The Origins of Freemasonry, Scotland's Century, 1590-1710*, Cambridge, Cambridge University Press, 1988, p. 223). This lodge was active between 1717 and 1729 (GOULD, *The History of Freemasonry*, p. 339).

(71) Which was active between 1712-1729 (GOULD, *The History of Freemasonry*, p. 340).

(72) Founded in 1717 and active till 1818 (*ibidem*).

(73) Gould gives 1717 as date of its founding (*ibidem*).

(74) Cited from: URL: http://www.rgle.org.uk/RGLE_Grand_Lodges.htm [bold and italics added (consulted on 6 November 2007)].

(75) GOULD, *The History of Freemasonry*, p. 340.

(76) *Ibidem*.

Lodge (Mary's Chapel) while he was there to supervise the construction of hydraulic installations⁽⁷⁷⁾. During his stay in Holland (1730-1732), he initiated people⁽⁷⁸⁾.

Conclusion

Desaguliers stood at the forefront of two crucial modern enterprises: scientific research and Freemasonry. All primary and secondary material currently available has been discussed and analysed here. Desaguliers was not a deistic thinker or a deistic Newtonian. I hope this paper will be useful for further probing of his significance, for the ambitions of the small and plump looking man with asymmetrically posited eyes⁽⁷⁹⁾ who came from La Rochelle and moved to one of Europe's leading capitals to accomplish his goals have scarcely been studied systematically.

(77) John STOKES, "Inaugural Address: Life of J.T. Desaguliers", in *Transactions of the Ars Quatuor Coronati Lodge*, vol. 38, 1925, p. 285-308 (p. 292-296) [this is an landmark study on Desaguliers, containing many primary sources on Desaguliers' life].

(78) *Ibidem*, p. 297.

(79) Cf. James Tookey portrait (mezzotint, after Hans Hysing) of J.T. Desaguliers (1725).

SUMMARY

Steffen DUCHEYNE, *The Times and Life of J. Th. Desaguliers (1683 – 1744) : Newtonian and Freemason*

John Th. Desaguliers (1683-1744) (*né*: Desaguillers) was at the forefront of two vastly growing movements: Newtonianism and Freemasonry. Desaguliers, fellow of the Royal Society, was a personal friend of Isaac Newton. He composed numerous scientific books and papers in which he defended Newtonian natural philosophy and, as such, he was a key figure in the popularization of Newtonianism. Whilst in London, Desaguliers also became a key figure in the rise of Freemasonry: in 1719 he became Grand Master of the Grand Lodge of London and was also involved in the composition of James Anderson's *The Constitutions of the Free-masons* (1723).

Newtonianism - J.Th. Desaguliers - Freemasonry

RÉSUMÉ

Steffen DUCHEYNE, *La vie et les œuvres de John Th. Desaguliers (1683-1744), newtonien et franc-maçon*

Jean Théophile Desaguliers (1683-1744) (*né*: Desaguillers) a été à l'avant-garde de deux mouvements de plus en plus importants: le newtonianisme et la franc-maçonnerie. Desaguliers, membre de la Royal Society et ami personnel d'Isaac Newton, a composé de nombreux livres et articles scientifiques dans lesquels il a défendu la philosophie naturelle de Newton. Il a ainsi joué un rôle majeur dans la popularisation des idées de Newton. A Londres, Desaguliers a également été un personnage clé de la franc-maçonnerie : maître de la Grande Loge de Londres en 1719, il a été directement impliqué dans la réalisation du *The Constitutions of the Free-masons* de James Anderson (1723).

Newtonianisme – J.Th. Desaguliers – Franc-maçonnerie

SAMENVATTING

Steffen DUCHEYNE, *Leven en werk van J. Th. Desaguliers (1683 – 1744): aanhanger van Newton en vrijmetselaar*

Jean Théophile Desaguliers (1683-1744) (*geboren*: Desaguillers) was een centrale figuur in twee aan belang winnende stromingen: het Newtonianisme en de Vrijmetselarij. Desaguliers werd lid van de Royal Society en hij was een persoonlijke kennis van Isaac Newton. Hij schreef talrijke wetenschappelijke boeken en artikelen waarin hij de Newtoniaanse natuurfilosofie verdedigde. Om deze reden was hij centraal voor de popularisering van het Newtonianisme. Terwijl hij in London verbleef, werd Desaguliers eveneens een cruciale figuur binnen de Vrijmetselarij: in 1719 werd hij grootmeester van de Grootloge van Londen en hij was rechtstreeks betrokken in de totstandkoming van James Andersons *The Constitutions of the Free-masons* (1723).

Newtonianisme – J.Th. Desaguliers – Vrijmetselarij