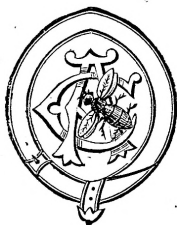


ORATION ON HUMBOLDT.

NATIONAL SECULAR SOCIETY

BY

COLONEL ROBERT G. INGERSOLL.



LONDON:
FREETHOUGHT PUBLISHING COMPANY,
28, STONECUTTER STREET, E.C.

PRICE TWOPENCE.

LONDON :

PRINTED BY ANNIE BESANT AND CHARLES BRADLAUGH,
28, STONECUTTER STREET, E.C.

ORATION ON HUMBOLDT.

The Universe is Governed by Law.

GREAT men seem to be part of the infinite, brothers of the mountains and the seas. Humboldt was one of these. He was one of those serene men, in some respects like our own Franklin, whose names have all the lustre of a star. He was one of the few great enough to rise above the superstition and prejudice of his time, and to know that experience, observation, and reason are the only basis of knowledge.

He became one of the greatest of men, in spite of having been born rich and noble—in spite of position. I say in spite of these things, because wealth and position are generally the enemies of genius, and the destroyers of talent.

It is often said of this or that man, that he is a self-made man—that he was born of the poorest and humblest of parents, and that, with every obstacle to overcome, he became great. This is a mistake. Poverty is generally an advantage. Most of the intellectual giants of the world have been nursed at the sad and loving breast of poverty. Most of those who have climbed highest on the shining ladder of fame commenced at the lowest round. They were reared in the straw-thatched cottages of Europe; in the log-houses of America; in the factories of the great cities; in the midst of toil; in the smoke and din of labour, and on the verge of want. They were rocked by the feet of mothers whose hands, at the same time, were busy with the needle or the wheel.

It is hard for the rich to resist the thousand allurements of pleasure, and so I say, that Humboldt, in spite of having

been born to wealth and high social position, became truly and grandly great.

In the antiquated and romantic castle of Tegel by the side of the pine forest, on the shore of the charming lake near the beautiful city of Berlin, the great Humboldt, one hundred years ago, was born, and there he was educated after the method suggested by Rousseau,—Campe, the philologist and critic, and the intellectual Kunth being his tutors. There he received the impressions that determined his career; there the great idea that the Universe is governed by law took possession of his mind, and there he dedicated his life to the demonstration of this sublime truth.

He came to the conclusion that the source of man's unhappiness is his ignorance of nature.

After having received the most thorough education at that time possible, and having determined to what end he would devote the labours of his life, he turned his attention to the sciences of geology, mining, mineralogy, botany and distribution of plants, the distribution of animals, and the effect of climate upon man. All grand physical phenomena were investigated and explained. From his youth he had felt a great desire for travel. He felt, as he says, a violent passion for the sea, and longed to look upon Nature in her wildest and most rugged forms. He longed to give a physical description of the Universe—a grand picture of Nature; to account for all phenomena; to discover the laws governing the world; to do away with that splendid delusion called special providence, and to establish the fact that the Universe is governed by law.

To establish this truth was, and is, of infinite importance to mankind. That fact is the death-knell of superstition; it gives liberty to every soul, annihilates fear, and ushers in the age of reason.

The object of this illustrious man was to comprehend the phenomena of physical objects in their general connection, and to represent Nature as one great whole, moved and animated by internal forces.

For this purpose he turned his attention to descriptive botany, traversing distant lands and mountain ranges to ascertain definitely the geographical distribution of plants. He investigated the laws regulating the differences of temperature and climate, and the changes of the atmosphere. He studied the formation of the earth's crust, explored the deepest mines, ascended the highest moun-

tains, and wandered through the craters of extinct volcanoes.

He became thoroughly acquainted with chemistry, with astronomy, with terrestrial magnetism; and as the investigation of one subject leads to all others, for the reason that there is a mutual dependence and a necessary connection between all facts, so Humboldt became acquainted with all the known sciences.

His fame does not depend so much upon his discoveries (although he discovered enough to make hundreds of reputations), as upon his vast and splendid generalization.

He was to Science what Shakespeare was to the drama.

He found, so to speak, the world full of unconnected facts—all portions of a vast system—parts of a great machine. He discovered the connection which each bears to all, put them together, and demonstrated beyond all contradiction that the earth is governed by law.

He knew that to discover the connection of phenomena is the primary aim of all natural investigation. He was infinitely practical.

Origin and destiny were questions with which he had nothing to do.

His surroundings made him what he was.

In accordance with a law not fully comprehended he was a production of his time.

Great men do not live alone; they are surrounded by the great; they are the instruments used to accomplish the tendencies of their generation; they fulfil the prophecies of their age.

Nearly all the scientific men of the eighteenth century had the same idea entertained by Humboldt, but most of them in a dim and confused way. There was, however, a general belief among the intelligent that the world is governed by law, and that there really exists a connection between all facts, *or that all facts are simply the different aspects of a general fact*, and that the task of science is to discover this connection, to comprehend this general fact, or to announce the laws of things.

Germany was full of thought, and her universities swarmed with philosophers and grand thinkers in every department of knowledge.

Humboldt was the friend and companion of the greatest poets, historians, philologists, artists, statesmen, critics, and logicians of his time.

He was the companion of Schiller, who believed that man would be regenerated through the influence of the Beautiful ; of Goethe, the grand patriarch of German literature ; of Wieland, who has been called the Voltaire of Germany ; of Herder, who wrote the outlines of a philosophical history of man ; of Kotzebue, who lived in the world of romance ; of Schlegelmacher, the pantheist ; of Schlegel, who gave to his countrymen the enchanted realm of Shakespeare ; of the sublime Kant, author of the first work published in Germany on Pure Reason ; of Fichte, the infinite idealist ; of Schopenhauer, the European Buddhist, who followed the great Gautama to the painless and dreamless Nirwana, and of hundreds of others, whose names are familiar to, and honoured by, the scientific world.

The German mind had been grandly roused from the long lethargy of the dark ages of ignorance, fear, and faith. Guided by the holy light of reason, every department of knowledge was investigated, enriched, and illustrated.

Humboldt breathed the atmosphere of investigation ; old ideas were abandoned ; old creeds, hallowed by centuries, were thrown aside ; thought became courageous ; the athlete, Reason, challenged to mortal combat the monsters of superstition.

No wonder that, under these influences, Humboldt formed the great purpose of presenting to the world a picture of Nature, in order that men might, for the first time, behold the face of their mother.

Europe became too small for his genius ; he visited the tropics in the New World, where, in the most circumscribed limits, he could find the greatest number of plants, of animals, and the greatest diversity of climate, that he might ascertain the laws governing the production and distribution of plants, animals, and men, and the effects of climate upon them all. He sailed along the gigantic Amazon ; the mysterious Orinoco ; traversed the Pampas ; climbed the Andes until he stood upon the crags of Chimborazo, more than eighteen thousand feet above the level of the sea, and climbed on until blood flowed from his eyes and lips. For nearly five years he pursued his investigations in the New World, accompanied by the intrepid Bonpland. Nothing escaped his attention. He was the best intellectual organ of these new revelations of science. He was calm, reflective and eloquent ; filled with the sense of the beautiful and the love of truth. His collections were immense, and valuable

beyond calculation to every science. He endured innumerable hardships, braved countless dangers in unknown savage lands, and exhausted his fortune for the advancement of true learning.

Upon his return to Europe, he was hailed as the second Columbus; as the scientific discoverer of America; as the revealer of a New World; as the great demonstrator of the sublime truth, that the Universe is governed by law.

I have seen a picture of the old man, sitting upon the mountain side, above him the eternal snow, below, the smiling valley of the tropics filled with vine and palm, his chin upon his breast, his eyes deep, thoughtful, and calm, his forehead majestic—grander than the mountain upon which he sat—crowned with the snow of his whitened hair, he looked the intellectual autocrat of this world.

Not satisfied with his discoveries in America, he crossed the steppes of Asia, the wastes of Siberia, the great Ural range, adding to the knowledge of mankind at every step. His energy acknowledged no obstacle, his life knew no leisure; every day was filled with labour and with thought.

He was one of the apostles of Science, and he served his divine Master with a self-sacrificing zeal that knew no abatement; with an ardour that constantly increased, and with a devotion unwavering and constant as the polar star.

In order that the people at large might have the benefit of his numerous discoveries and his vast knowledge, he delivered, at Berlin, a course of lectures, consisting of sixty-one free addresses upon the following subjects:

Five, upon the nature and limits of physical geography.

Three were devoted to a history of Science.

Two, to inducements to a study of natural science.

Sixteen, on the heavens.

Five, on the form, density, latent heat and magnetic power of the earth, and the polar light.

Four were on the nature of the crust of the earth, on hot springs, earthquakes and volcanoes.

Two, on mountains and the type of their formation.

Two, on the form of the earth's surface, on the connection of continent, and the elevation of soil over ravines.

Three, on the sea as a globular fluid surrounding the earth.

Ten, on the atmosphere as an elastic fluid surrounding the earth, and on the distribution of heat.

One, on the geographic distribution of organized matter in general.

Three, on the geography of plants.

Three, on the geography of animals, and

Two, on the races of men.

These lectures are what is known as the *COSMOS*, and present a scientific picture of the world, of infinite diversity and unity, of ceaseless motion in the eternal grasp of law.

These lectures contain the result of his investigation, observation and experience; they furnish the connection between phenomena; they disclose some of the changes through which the earth has passed in the countless ages; the history of vegetation, animals, and men; the effects of climate upon individuals and nations, the relation we sustain to other worlds, and demonstrate that all phenomena, whether insignificant or grand, exist in accordance with inexorable law.

There are some truths, however, that we never should forget. Superstition has always been the relentless enemy of science; faith has been a hater of demonstration; hypocrisy has been sincere only in its dread of truth, and all religions are inconsistent with mental freedom.

Since the murder of Hypatia, in the fifth century, when the polished blade of Greek philosophy was broken by the club of ignorant Catholicism, until to-day, superstition has detested every effort of reason.

It is almost impossible to conceive of the completeness of the victory that the Church achieved over philosophy. For ages science was utterly ignored; thought was a poor slave; an ignorant priest was the master of the world; faith put out the eyes of the soul; the reason was a trembling coward; the imagination was set on fire of hell; every human feeling was sought to be suppressed; love was considered infinitely sinful, pleasure was the road to eternal fire, and God was supposed to be happy only when his children were miserable. The world was governed by an Almighty's whim; prayers could change the order of things, halt the grand procession of Nature; could produce rain, avert pestilence, famine, and death in all its forms. There was no idea of the certain; all depended upon divine pleasure, or displeasure rather; heaven was full of inconsistent malevolence, and earth of ignorance. Everything was done to appease the divine wrath; every public calamity was caused by the sins of the people; by a failure to pay tithes, or for having, even in

secret, felt a disrespect for a priest. To the poor multitude, the earth was a kind of enchanted forest, full of demons ready to devour, and theological serpents lurking with infinite power to fascinate and torture the unhappy and impotent soul. Life to them was a dim and mysterious labyrinth, in which they wandered weary and lost, guided by priests as bewildered as themselves, without knowing that at every step the Ariadne of reason offered them the long lost clue.

The very heavens were full of death ; the lightning was regarded as the glittering vengeance of God, and the earth was thick with snares for the unwary feet of man. The soul was supposed to be crowded with the wild beasts of desire ; the heart to be totally corrupt, prompting only to crime ; virtues were regarded as only deadly sins in disguise ; there was a continual warfare being waged between the Deity and the Devil, for the possession of every soul ; the latter being generally considered victorious. The flood, the tornado, the volcano, were all evidences of the displeasure of heaven and the sinfulness of man. The blight that withered, the frost that blackened, the earthquake that devoured, were the messengers of the Creator.

The world was governed by fear.

Against all the evils of nature, there was known only the defence of prayer, of fasting, of credulity, and devotion. *Man in his helplessness endeavoured to soften the heart of God.* The faces of the multitude were blanched with fear and wet with tears ; they were the prey of hypocrites, kings, and priests.

My heart bleeds when I contemplate the sufferings endured by the millions now dead ; of those who lived when the world appeared to be insane ; when the heavens were filled with an infinite HORROR, who snatched babes with dimpled hands and rosy cheeks from the white breasts of mothers, and dashed them into an abyss of eternal flame.

Slowly, beautifully, like the coming of the dawn, came the grand truth that the Universe is governed by law ; that disease fastens itself upon the good and upon the bad ; that the tornado cannot be stopped by counting beads ; that the rushing lava pauses not for bended knees ; the lightning for clasped and uplifted hands ; nor the cruel waves of the sea for prayer ; that paying tithes causes, rather than prevents, famine ; that pleasure is not sin ; that happiness is the only good ; that demons and gods exist only in the imagination ; that faith is a lullaby sung to put the soul to sleep ; that devotion is a bride that fear offers to supposed power ; that

offering rewards in another world for obedience in this, is simply buying a soul on credit; that knowledge consists in ascertaining the laws of nature, and that wisdom is the science of happiness. Slowly, grandly, beautifully, these truths are dawning upon mankind.

From Copernicus we learn that this earth is only a grain of sand on the infinite shore of the Universe; that everywhere we are surrounded by shining worlds, vastly greater than our own, all moving and existing in accordance with law. True, the earth began to grow small, but man began to grow great.

The moment the fact was established that other worlds are governed by law, it was only natural to conclude that our little world was also under its dominion. The old theological method of accounting for physical phenomena by the pleasure and displeasure of the Deity was, by the intellectual, abandoned. They found that disease, death, life, thought, heat, cold, the seasons, the winds, the dreams of man, the instinct of animals—in short, that all physical and mental phenomena are governed by law, absolute, eternal and inexorable.

Let it be understood, that by the term law is meant the same invariable relations of succession and resemblance predicated of all facts springing from like conditions. Law is a fact—not a cause. It is a fact, that like conditions produce like results; this fact is Law. When we say that the Universe is governed by law, we mean that this fact, called law, is incapable of change—that it has been, and forever will be, the same inexorable, immutable FACT, inseparable from all phenomena. Law, in this sense, was not enacted or made. It could not have been otherwise than as it is. That which necessarily exists has no creator.

Only a few years ago this earth was considered the real centre of the universe; all the stars were supposed to revolve around this insignificant atom. The German mind, more than any other, has done away with this piece of egotism. Purbach and Mullerus, in the fifteenth century, contributed most to the advancement of astronomy in their day. To the latter, the world is indebted for the introduction of decimal fractions, which completed our arithmetical notation and formed the second of the three steps, by which, in modern times, the science of numbers has been so greatly improved; and yet both of these men believed in the most childish absurdities, at least in enough of

them, to die without their orthodoxy having ever been suspected.

Next came the great Copernicus, and he stands at the head of the heroic thinkers of his time who had the courage and the mental strength to break the chains of prejudice, custom, and authority, and to establish truth on the basis of experience, observation, and reason. He removed the earth, so to speak, from the centre of the Universe, and ascribed to it a two-fold motion, and demonstrated the true position which it occupies in the solar system.

At his bidding the earth began to revolve, at the command of his genius it commenced its grand flight 'mid the eternal constellations round the sun.

For fifty years his discoveries were disregarded. All at once, by the exertions of Galileo, they were kindled into so grand a conflagration as to consume the philosophy of Aristotle, to alarm the hierarchy of Rome, and to threaten the existence of every opinion not founded upon experience, observation, and reason.

The earth was no longer considered a Universe, governed by the caprices of some revengeful deity, who had made the stars out of what he had left after completing the world, and had stuck them in the sky, simply to adorn the night.

I have said this much concerning astronomy because it was the first splendid step forward; the first sublime blow that shattered the lance and shivered the shield of superstition; the first real help that man received from heaven, because it was the first great lever placed beneath the altar of a false religion; the first revelation of the infinite to man; the first authoritative declaration that the Universe is governed by law; the first science that gave the lie direct to the cosmogony of barbarism, and because it is the sublimest victory that the reason has achieved.

In speaking of astronomy, I have confined myself to the discoveries made since the revival of learning. Long ago, on the banks of the Ganges, ages before Copernicus lived, Aryabhata taught that the earth is a sphere, and revolves on its own axis. This, however, does not detract from the glory of the great German. The discovery of the Hindoo had been lost in the midnight of Europe—in the age of faith, and Copernicus was as much a discoverer as though Aryabhata had never lived.

In this short address there is no time to speak of other sciences, and to point out the particular evidence furnished

by each, to establish the dominion of law, nor to more than mention the name of Descartes, the first who undertook to give an explanation of the celestial motions, or who formed the vast and philosophic conception of reducing all the phenomena of the Universe to the same law; of Montaigne, one of the heroes of common sense; of Galvani, whose experiments gave the telegraph to the world; of Voltaire, who contributed more than any other of the sons of men to the destruction of religious intolerance; of Auguste Comte, whose genius erected to itself a monument that still touches the stars; of Gutenberg, Watt, Stephenson, Arkwright, all soldiers of science in the grand army of the dead kings.

The glory of science is, that it is freeing the soul—breaking the mental manacles—getting the brain out of bondage—giving courage to thought—filling the world with mercy, justice, and joy.

Science found agriculture ploughing with a stick—reaping with a sickle—commerce at the mercy of the treacherous waves and the inconstant winds—a world without books—without schools—man denying the authority of reason, employing his ingenuity in the manufacture of instruments of torture, in building inquisitions and cathedrals. It found the land filled with malicious monks—with persecuting Protestants and the burners of men. It found a world full of fear; ignorance upon its knees; credulity the greatest virtue; women treated like beasts of burden; cruelty the only means of reformation. It found the world at the mercy of disease and famine; men trying to read their fates in the stars, and to tell their fortunes by signs and wonders; generals thinking to conquer their enemies by making the sign of the cross, or by telling a rosary. It found all history full of petty and ridiculous falsehood, and the Almighty was supposed to spend most of his time turning sticks into snakes, drowning boys for swimming on Sunday, and killing little children for the purpose of converting their parents. It found the earth filled with slaves and tyrants, the people in all countries down-trodden, half naked, half starved, without hope, and without reason in the world.

Such was the condition of man when the morning of science dawned upon his brain, and before he had heard the sublime declaration that the Universe is governed by law. For the change that has taken place we are indebted solely to science—the only lever capable of raising mankind. Abject faith is barbarism; reason is civilization. To obey

is slavish ; to act from a sense of obligation perceived by the reason is noble. Ignorance worships mystery ; reason explains it : the one grovels, the other soars.

No wonder that fable is the enemy of knowledge. A man with a false diamond shuns the society of lapidaries, and it is upon this principle that superstition abhors science.

In all ages the people have honoured those who dishonoured them. They have worshipped their destroyers, they have canonized the most gigantic liars and buried the great thieves in marble and gold. Under the loftiest monument sleeps the dust of murder.

Imposture has always won a crown.

The world is beginning to change because the people are beginning to think. To think is to advance. Everywhere the great minds are investigating the creeds and superstitions of men, the phenomena of nature, and the laws of things. At the head of this great army of investigators stood Humboldt—the serene leader of an intellectual host—a king by the suffrage of science and the divine right of Genius.

And to-day we are not honouring some butcher called a soldier, some wily politician called a statesman, some robber called a king, nor some malicious metaphysician called a saint. We are honouring the grand Humboldt, whose victories were all achieved in the arena of thought ; who destroyed prejudice, ignorance, and error—not men ; who shed light—not blood, and who contributed to the knowledge, the wealth and the happiness of all mankind.

His life was pure, his aims lofty, his learning varied and profound, and his achievements vast.

We honour him because he has ennobled our race, because he has contributed as much as any man living or dead to the real prosperity of the world. We honour him because he honoured us ; because he laboured for others ; because he was the most learned man of the most learned nation ; because he left a legacy of glory to every human being. For these reasons he is honoured throughout the world. Millions are doing homage to his genius at this moment, and millions are pronouncing his name with reverence and recounting what he accomplished.

We associate the name of Humboldt with oceans, palms ; the wide deserts ; the snow-tipped craters of the Andes ; with primeval forests and European capitals ; wildernesses and universities ; with savages and savans ; with the lonely rivers of unpeopled wastes ; with peaks and

pampas, and steppes, and cliffs, and crags ; with the progress of the world ; with every science known to man, and with every star glittering in the immensity of space.

Humboldt adopted none of the soul-shrinking creeds of his day ; wasted none of his time in the stupidities, inanities, and contradiction of theological metaphysics ; he did not endeavour to harmonize the astronomy and geology of a barbarous people with the science of the nineteenth century. Never, for one moment, did he abandon the sublime standard of truth ; he investigated, he studied, he thought, he separated the gold from the dross in the crucible of his grand brain. He was never found on his knees before the altar of superstition. He stood erect by the grand tranquil column of reason. He was an admirer, a lover, and adorer of nature, and at the age of ninety, bowed by the weight of nearly a century, covered with the insignia of honour, loved by a nation, respected by a world, with kings for his servants, he laid his weary head upon her bosom—upon the bosom of the Universal mother—and with her loving arms around him, sank into that slumber called death.

History added another name to the starry scroll of the immortals.

The world is his monument ; upon the eternal granite of her hills he inscribed his name, and there upon everlasting stone his genius wrote this, the sublimest of truths :

“THE UNIVERSE IS GOVERNED BY LAW.”
