**Important scientific and technological advances**

**made by people from the UK**

Today we live in information society, what means that finding a book is much harder task, then searching for articles in the internet, not even with a lot of rubbish in it. This is why my primary source for the material is internet, and especially Wikipedia.

So, first of all I want to point out my position in the question, because it is not truly independent. And my own feelings will dictate the manner in which I will speak on the theme. After looking definition of the word essay in Wikipedia, I got convinced that my personal opinion have a right to be pronounced. Let me quote Wikipedia: «Essays are generally scholarly pieces of writing written from an author's personal point of view, but the definition is vague, overlapping with those of an article, a pamphlet and a short story». Of course personally I turned my attention to words “scholarly”, “personal point of view”, “pamphlet” (брошюра, злая сатира) and “story”. I am sure you have already guessed, but I will say it at last: “Personally I dislike Anglo-Saxons”.

This is why I am going not to cover as much scientific and technological advances as possible. I will try to enumerate achievements trying to expose everything I can.

Of course my work is not truly scientific, it is even pseudo-science. But as it is an essay, I feel myself rightful to speak.

Page from Wikipedia enumerates a lot of people and achievements related to the UK. Probably that list is the most famous achievements in England. So just like Wikipedia, I will start with Isaac Newton.

Isaac Newton is a key figure in the history not only of the UK, but in the history of all the world. He born in 1642 in Woolsthorpe village in England. Sir Isaac Newton was an English physicist and mathematician, in his days he also called "natural philosopher". When he was at Trinity College he started his carrier. He created a list of 45 point where he enumerated different unsolved problems in his century. His first mathematical discovery was Binomial Theorem for rational quantities. Later he discovered physical law called afterwards "Newton's law of universal gravitation". This law formed the basis of classical mechanics. After several years he was given master's degree and started teaching, but his lessons was never been visited much. Newton invented a reflecting telescope, which helped in navigation on the sea and discovering planets. Last invention gave Newton way to Royal Society of London for improving Natural Knowledge. But there he met a lot of disagreement with his works, that he never seen before, and finally he chose to ignore scientific attacks, because they occupied too much of his time. During all his life his interests covered physics, mathematics, mechanics and astronomy.

Another UK scientist is Charles Darwin. He is famous for his theory of evolution by natural selection. On the contrary to Newton, I dislike Darwin, because of his theory. In my opinion there is a big fault in it. You see, if everything that is redundant must die off, then there is now chance for complicated mechanisms to appear. Let’s take for example filament of infusorium. This part of the small one-celled organism is very complicated in fact. It consists of many details, sort of gears. Everybody agrees that such compound mechanism cannot appear at once by chance, but at the same time if it emerged partially than it did not work and accordingly to Darwin’s theory has to die out. This simple reasoning leads us to contradiction, which means that the theory is wrong. Also I would like to point out some acts of deception that take place in the history of this theory. As you likely to know, according to this theory archeologists must have already found the remaining’s of creatures that will be something between people and monkeys. But strangely enough they did not. Archeologists find a lot of handmade objects, sometimes their owner’s, and they find remaining’s of dinosaurs, but there is no trace of half-people. A Darwin followers got so disappointed, that they tried to fake remaining’s of ancient man two times, fortunately – unsuccessfully. In my opinion this is unforgivable, because science is accurate knowledge, created to reflect truth of our world, and any faking activity is unthinkable.

After Darwin I would like to mention Henry Cavendish. He born in Nice in France, but it looks to me that his family is from Britain. He studied in Cambridge and became twenty first in his family, who studied there. He was one of the first who studied properties of the air and its mixture, properties of hydrogen, nitric acid and a lot of other chemical elements. There were other scientists that had studied some of this elements, but Cavendish have made huge progress in it. Cavendish has also continued Newton’s works and measured mass of the Earth, which enabled to find out gravitation constant with good accuracy. Cavendish was a very progressive, he also studied electricity, but his works did not become very popular in his time. Maxwell only century later published them.

James Clerk Maxwell was a Scotchman. And according to nowadays events, I must mention Scottish independence referendum which took place across Scotland on 18 September. 55,3 percent of Scotland voted for remaining as a part of United Kingdom. The turnout of 84.6% was unusually high for a vote held in Scotland. Now after small lyrical digression I will return to Maxwell. His most spectacular achievement is “Maxwell’s equations” which are a set of partial differential equations that, together with the Lorentz force law, form the foundation of classical electrodynamics, optics and electric circuits. Here I want to point out importance and curiosity of what Maxwell did. His equations indeed lie in the basis of modern science, but modern science did not admit methods, which Maxwell used to discover them, but anyway he did very good job. Maxwell is also the person who invented the theory of Saturn rings stability and investigated distribution of speeds in gases, which called afterward Maxwellian distribution. Of course he made a lot of other discoveries, but I will stop here.

Next scientist I would like to tell about is Sir Alexander Fleming. He worked hardly under bacteriology and immunology. It is funny, but for such people mess in their laboratory is an advantage. Fleming opened properties of penicillin, lysozyme (antibacterial ferment in our organisms). Penicillin is an antibiotic, the first one that had been discovered in our world, and I do believe that it saved a lot of lives. This is why Fleming is one who deserves respect.

Now I would like to mention another man, who was not far from Fleming in my opinion, but of course it is only because with biology and chemistry I am with little in common. This man is called Francis Crick. His major discovery is the structure of the DNA. He with his two colleagues Watson and Maurice Wilkins were jointly awarded the 1962 Nobel Prize for Physiology or Medicine "for their discoveries concerning the molecular structure of nucleic acids and its significance for information transfer in living material". He also is known for using the term “Central dogma” to summarize the idea that genetic information flow in cells is essentially one-way, from DNA to RNA to protein. Crick was the man, who was one of the first scientists who migrated from physics to biology. Crick thought that physics had already too investigated and he believed that its progress can be spread on other sciences, and after good studying of physics he merged. Crick taught himself the mathematical theory of X-ray crystallography, it is a tool used for identifying the atomic and molecular structure of a crystal. Watching how other scientists worked under bonds between molecules in crystals he learned a lot about it and afterwards used it in his discoveries about DNA. And as usually happens with shared discoveries a quarrel appeared. There was a very big argument with Rosalind Franklin, because she was not included in the list of researchers.

Now I am going to talk about informational revolution. And firstly, I will have to mention steam locomotive developed by Richard Trevithick and Andrew Vivian. Steam locomotive are fueled by burning material that heated water which began to evaporate and increased pressure under the plunger that was connected with wheels, afterwards steam turned off, where it refrigerated and condensed converting into the water. Steam locomotives were first invented in early 19th and were used until the middle of the 20th century when they were replaced by electric and diesel locomotives. But do not think that creating steam locomotives is so easy business. It is still a full operational engine and has complex nuances.

Another engine that was invented in England was a jet-engine by Frank Whittle. This type of engine uses the principle of mixing the air with fuel, its oxidation with following pressure boost that can push objects. Of course this type of engines actively is used on airplanes in our days, because they are much powerful in comparison with piston engines, but of course it is not so powerful like rocket engines, and has some typical limitations concerned the environment and maximal speed.

One more type of engine invented by England man is electric motor by Michael Faraday. It converts electric energy into mechanical movement. Its main advantage is small size and big moment of force. Its main idea is to use force of changing magnetic field to move anchor – another electric circuit in used magnetic field.

And of course I cannot miss achievements in gas dynamics by Sir George Cayley in 17th – 18th century. Cayley was an English engineer worked under the aerodynamics theory. He was one of the first who tried to create real-size models for flying which were the prototypes of the airplanes and gliders. He also was the first to invent wheel with spokes like in bicycles, the only thing is that he used not the spokes, but threads. He worked under different types of internal-combustion engine and has a patent for track-laying movement.

Of course there was other discoveries made by UK scientists, for example telephone, television, hovercraft, colossus computer and much more, but I believe that I have covered the most meaningful discoveries.

At the end I would like to point out that in despite of my dislike to UK, I did not found particular fraud anywhere, and my exposure ended with nothing, what probably means that UK indeed did a lot of important discoveries that changed our world in a better way.