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EDISON –Extracted from a book entitled "Made in America" by Bill Bryson

America has always had an incredible capacity for exploiting new technologies and no one was better at this than Thomas Alva Edison. Edison was the archetypal American pragmatist Latin, philosophy and other esoteric puruits he dismissed as "ninny stuff'. What he wanted were useful inventions that would make life more agreeable for the user and bring untold wealth for himself. With 1,093 patents to his name (though many of these were in fact invented by his employees), Edison has almost as many patents as his nearest rival, Edwin Land (inventor of the Polaroid camera), and no one gave the world a greater range of products that have become central to modern life.

Edison's character was not, to put it charitably, altogether unflawed He connived against competitors, took personal credit for inventions that were not his, drove his assistants to breaking point (they were known as the "Insomnia Squad") and when all else failed did not hesitate to resort to bribery, slipping New Jersey legislators $1,000 each to produce laws favourable to his interests. If not an outright liar, he was certainly often economical with the truth. A popular story, which he did nothing to dispel, was that a width of 35mm was chosen for movie film, because when one of his minions asked how wide the film should be, he crooked a finger and thumb and said, "Oh, about this wide". In fact as Douglas Collins points out, it is far more probable that rather than devise his own film, he used Kodak film, which was not only 70mm wide, but 50 feet long. When cut down the middle, it would conveniently yield 100 feet of 35mm film, curiously the precise dimensions of Edison's first reels of film.

When George Westinghouse's novel and, in retrospect, superior alternating current electrical system began to challenge the direct current system in which Edison had invested much effort and money, Edison produced an eighty-three page booklet entitled "A Warning! From the Edison Electric Light Co., filled with alarming (and possibly fictitious) tales of innocent people, who had been killed by coming into contact with Westinghouse's dangerously unreliable AC cables. To drive home bis point, he paid neighbourhood children, twenty-five cents each to bring him stray dogs, then staged an elaborate demonstrations for the press, at which the animals were dampened to improve their conductivity, strapped to tin sheets and slowly dispatched with increasing doses of alternating current.

His boldest and certainly the tackiest public relations exercise was to engineer the world's first electrical execution using his rivals alternating current in the hope of proving once and for all, its inherent dangers. The victim selected for the exercise was one William Kemmler, an inmate at Auburn State Prison, New York, who had got himself into this unfortunate fix by bludgeoning to death his girlfriend. The experiment was not a success. Strapped into an electric chair with his hands immersed in buckets of salt water, Kemmler was subjected to 1,600 volts of AC for fifty seconds. He gasped a great deal, lost consciousness and even began to smoulder a little, but conspicuously he failed to die. Not until a second, more forceful charge was applied did he finally expire. It was a messy, ugly death and wholly undermined Edison's intentions. Alternating current was soon the norm.

Of linguistic interest is the small, forgotten argument over what to call the business of depriving a person of his life by means of a severe electrical discharge. Edison always an enthusiast for novel nomenclature, variously suggested "electromort", "dynamort" and "ampermort", before seizing with telling enthusiasm on to "Westinghouse", but none of these caught on. Many newspapers at first, wrote that Kemmler was to be "electrized", but soon changed that to "electrocuted" and before long "electrocution" was a word familiar to everyone, not least to those on "death row".

Edison was a brilliant inventor with a rare gift for coaxing genius from his employees, but where he really excelled was as an organiser of systems. The invention of the light bulb was a wondrous thing, but of not much practical use when no one had a socket to plug it into. Edison and his tireless workers had to design and build the entire system from scratch, from power stations to cheap and reliable switches. In this he left Westinghouse and all other competitors standing

The first experimental power station was built in two semi-derelict buildings on Pearl Street, Lower Manhattan, New York and when on the 4th September 1882. Edison threw a switch that illuminated, if but faintly, 800 flickering bulbs all over Manhatton South. With incredible speed, electric lighting became the wonder of the age. Within months, Edison had set up no fewer than 334 small electrical plants all over the world. Cannily he put them in places, where they would be sure to achieve maximum impact. On the New York Stock Exchange, in the Palmer House Hotel, Chicago, La Scala Opera House, Milan, the dining-room of the House of Commons in London. All this made Edison and America immensely rich. By 1920 it was estimated that the industries spawned by his inventions and business pursuits - from electric lighting to motion pictures - were worth in aggregate $21.6 billion. No other person did more to make America an economic power.

Edison's other great innovation was the setting up of a laboratory with the express purpose of making technological breakthroughs with commercial potential. Practical science, elsewhere the preserve of academics, had become in America the work of capitalists.

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EDITOR'S NOTE

From the UK perspective, Godalming is credited with affording the first public supply of electricity in September 1881, where a small water-wheel was installed on the River Wey driving a small Siemens generator. However this was not a continuous supply being abandoned three years later.

The distinction for the first permanent public supply in Britain is usually given to Brighton where the Hammond Electric Light Company commenced a supply in February 1882, which excluded street lighting beating Thomas Edison's New York Station by some seven months. Eastbourne also established a public supply in September 1882, which included street lighting.

Taunton always considered that they were the first British supply, when Mr. Massingham commenced a supply there on the 12th December 1885, but it was not continuous until a few months later on the 1rt May 1886. This was certainly the first public supply of electricity in the South West. The equipment used at Taunton however was American from the Thompson Houston company, which later merged with Edison to form General Electric, thus British Thompson Houston (BTH) became a subsidiary of GE of America.