

Louis Alexander Slotin

The Man Who Tickled the Dragon's Tail

When we are first given a few pieces of information at school regarding the history of nuclear weapons while delving into the depths of World War II and its aftermaths, the prominent “mastermind” behind these macabre tools of mass destruction we read about is J. Robert Oppenheimer, the highly intellectual man behind the well-known Manhattan Project, wherein he would lead the creation of the atomic bomb, one of which targeted Hiroshima on 6 August 1945, causing such gargantuan and horrendous damage that it leaves the vast majority of people aghast when confronted with just the descriptions, let alone imagery of this titanic attack. However, this scientist would not have been able to construct something this abominable on his own. Even though the destruction was hideous and appalling, assembling such weapons with extremely perilous mechanisms and hazardous materials required the superlative intellect of numerous human beings, and of course the powerful hands of many stalwart workers. In this essay, I am going to write about one of the ingenious minds behind the Manhattan Project: the Canadian Louis Alexander Slotin. What hooked me when I was reading about this man was his rather short but eventful life, and that, contrary to how crucial his deeds were, there is scarcely any in-depth written source about his life.

The very first picture featuring Louis I stumbled upon showed a man in his thirties leaning casually on a partially assembled scientific breakthrough, “The Gadget” bomb.¹ This man in the photograph seems tranquil while handling the rather delicate device with a bit of frivolity. He is wearing an unbuttoned shirt, coarse shorts, boots, and a pair of elegant sunglasses. The tent he was in allowed workers not to be directly exposed to the rays of the

¹ *Louis Slotin with the Gadget Bomb during the Trinity Test*. January 01, 1945. Los Alamos National Laboratory Archives.

scalding sun, though judging by their looks, the heat still must have been sweltering -- they were in Los Alamos after all. How did Louis garner the attention of the people who invited him to what we now know as the birthplace of the first atomic bomb?

Louis Slotin was born on 1 December 1910 into a Yiddish-speaking family in Winnipeg. He was nurtured there in a milieu consisting mostly of Eastern European immigrants, and from early on, he seemed to have been blessed with a high intelligence which enabled him to graduate with a M.Sc. in geology. With the aid of one of his mentors the headstrong Louis, still infused with a craving for more knowledge, delightedly seized the opportunity of studying abroad in London with a fellowship at King's College. There, he continued pursuing his interests under the supervision of a man named Arthur John Allmand, the chair of the chemistry department. This person indisputably played a pivotal role in shaping the ardent Louis, as he provided him with the adequate material – and companionship – for his scientific studies. In 1936, now versed in physical chemistry, Slotin earned a Ph.D. degree, and for his thesis he won a prize. In 1937, he made an auspicious decision and was accepted to the University of Chicago as a research associate, and there he established a prosperous rapport with nuclear chemistry; this newly developed penchant never seeped out of him.

His thoroughly acquired expertise in the fields of nuclear chemistry and radiobiology were what made the United States government pay attention and invite the astute Slotin to join the Manhattan Project; in December 1944, he was relocated to the Los Alamos National Laboratory in New Mexico. His work there was to establish the critical mass values of certain materials. This required him to be quite a daredevil because his life was often hanging by a thread; the job was compared to “tickling the tail of a sleeping dragon”.

After the war, Slotin partly rued his own involvement in the project and expressed his plans to return to teaching. He might have carried in himself a premonition as well; one of his colleagues had lost his life in 1945 while conducting a dangerous experiment with a plutonium core. On 21 May 1946, while testing the core of the same kind (which was later given the notorious moniker of “demon core”), Slotin's screwdriver accidentally slipped,

initiating a chemical reaction which exposed him to a fatal dose of radiation. After nine days of excruciating pain, he succumbed to the grim reaper's scythe on 30 May 1946.

In his brief life, Slotin yearned for and devoured knowledge. The project he, at first, eagerly took part in led to a more exhaustive understanding of the most perilous materials, and to a breakthrough weapon of monstrous, abhorrent power, which is now part of a larger arsenal of such or even more deadly devices. These are today in the hands of our leaders, who, with just a mere push of a button, could commence a war with these heinous tools; the damage and destruction could push our planet to the brink of a near-apocalyptic state.

Could the construction of the atomic bomb have been evitable? I do not think so. The marvellous yet petrifying minds of humans know no boundaries when it comes to violence, inhumanity, and brutality. This weapon was not the first example. If technology keeps evolving at this fiendish pace, and if wars do not stop (if one just casts an eye over history, there are clues that the chances of a lasting, ultimate peace are beyond low), there is only more to come, rationally speaking. Let us just hope that another World War will not take place. Unlike Einstein, we now have a brief overview of the weapons that would be utilized in a war of this kind, but I regrettably have to say that he was undeniably right when he claimed that "World War IV will be fought with sticks and stones". Back then, he only witnessed snippets of what humans are capable of doing now, but the situation today sadly justifies his statement and foreshadows a dismal, gloom-ridden future.

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