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Johnson Controls

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Introduction

Johnson Controls: The Story of An American Company is a journey through more than a century of industrial ingenuity, entrepreneurial courage, and relentless adaptation to an evolving world. Established in 1885 amid the burgeoning era of American invention, Johnson Controls has grown from an upstart in Milwaukee, Wisconsin, to a global powerhouse present in more than 2,000 locations across six continents. This book chronicles the trajectory of the company, highlighting the pivotal events, innovative milestones, and defining challenges that have shaped its legacy.

At the heart of Johnson Controls' story is its founder, Warren Johnson, whose invention of the electric room thermostat ignited a series of innovations that would revolutionize not just a company, but the entire field of building automation. From the initial focus on temperature control, Johnson Controls' offerings and ambitions broadened throughout the twentieth century, encompassing automotive batteries, seating systems, security solutions, and advanced automation platforms. The company's history stands as a testament to the American spirit of reinvention and enterprise—qualities that have allowed it not only to survive but to thrive amid the tumult of changing markets and technologies.

In tracing Johnson Controls' evolution, this book examines the internal decisions and external forces—mergers and acquisitions, divestitures and reinvestments—that have shaped its identity. The shift from a diversified conglomerate to a specialist in smart and sustainable buildings was neither automatic nor inevitable; rather, it was the result of strategic pivots engineered to keep the company at the forefront of the industries it serves. Alongside stories of innovation and risk-taking, the company's progress is marked by continuous adaptation—responding to regulatory pressures, global competition, technological advancement, and changing customer expectations.

Today, Johnson Controls stands as a leader in making buildings smarter, safer, and more sustainable. Its expansive portfolio—spanning HVAC, fire and security systems, building automation, and AI-enabled digital solutions—touches nearly every major sector of the global economy. The company's commitment to sustainability, diversity, and technology is as central to its current identity as the thermostat was to its beginnings. Recent years have seen an intensified focus on reducing emissions, advancing renewable energy use, and promoting sustainable products and supply chains, positioning Johnson Controls as an important player in the world's transition to environmentally responsible infrastructure.

This book not only delves into the details of Johnson Controls' products, services, and financial trajectory, but also reveals the human element: the leadership that steers the

ship, the workforce that powers its daily operations, and the inclusive culture that forms its backbone. Leadership vision, innovation hubs, and workforce development all come together to create a vibrant, high-performance environment positioned to address the needs of a rapidly changing world.

As we look forward, Johnson Controls' ongoing transformation hints at a future rich with potential. The company is uniquely positioned to help address global sustainability demands and shape the future of smart infrastructure. By weaving together history, present achievements, and future possibilities, this book celebrates Johnson Controls—not just as an organization, but as a living story of American industry continually writing its next chapter.

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CHAPTER ONE: Roots of Innovation: Warren Johnson and the Electric Tele-Thermoscope

The late 19th century in America was a time of remarkable ingenuity, a period often called the Second Industrial Revolution. It was an era where ambitious minds, often working with limited resources but boundless determination, sought to solve everyday problems with mechanical and electrical solutions. Amidst this vibrant landscape of invention, a professor from rural Wisconsin quietly laid the groundwork for what would become a global industrial giant. His name was Warren Johnson, and his seemingly simple invention—the electric room thermostat—was anything but simple in its implications.

Warren Johnson wasn't your typical industrialist. Born in 1847, he was a teacher by profession, a professor at Whitewater Normal School in Wisconsin. His classroom, however, extended beyond the confines of academic theory; Johnson was a tinkerer, a problem-solver who saw the inefficiencies of his time and envisioned automated solutions. One particular frustration for him, and for many in the late 1800s, was the erratic and often uncomfortable heating in buildings. Furnaces were primitive by modern standards, and maintaining a consistent indoor temperature required constant manual adjustment, a laborious and imprecise task.

It was this common predicament that spurred Johnson's inventive spirit. He understood that a truly efficient heating system needed to respond automatically to changes in temperature, rather than relying on human intervention. He envisioned a device that could sense the air temperature and, in response, regulate the heat source, ensuring comfort without constant vigilance. This vision led him to develop what he called the "Electric Tele-Thermoscope."

Patented in 1883, the Electric Tele-Thermoscope was a groundbreaking device. At its core, it was a mercury-filled thermometer that, when the mercury reached a certain level, would make an electrical contact. This contact would then activate a motor that opened or closed a damper on a furnace, effectively controlling the flow of air and, consequently, the heat output. It was an elegant solution, harnessing the precision of electricity to manage the variability of fire. The "tele" in its name alluded to its ability to control the furnace from a distance, freeing inhabitants from the need to constantly monitor the heating system directly.

The significance of Johnson's invention extended far beyond mere convenience. Before the Electric Tele-Thermoscope, maintaining a comfortable indoor environment was a constant battle against the elements. Buildings were often either too hot or too cold,

leading to discomfort, wasted energy, and even health issues. Johnson's thermostat introduced a level of precision and automation that was unprecedented. It was the genesis of what would later be known as the building control industry, a sector dedicated to optimizing the comfort, safety, and efficiency of indoor spaces.

The idea of automatic temperature control, while revolutionary, wasn't immediately embraced by everyone. There were skeptics, naturally, who questioned the reliability of an automated system over human judgment. However, the practical benefits soon became undeniable. Buildings with Johnson's thermostat could maintain a much more consistent temperature, leading to greater occupant comfort and, importantly, more efficient use of fuel. In an age where coal and wood were the primary heating sources, efficiency translated directly into cost savings.

Warren Johnson's vision was not limited to just the invention itself; he also understood the need to bring his innovation to market. He recognized that the Electric Tele-Thermoscope wasn't just a clever gadget; it was a foundational technology that could transform how buildings were managed. This realization would soon lead him to seek out partners and establish a company dedicated to manufacturing and installing these innovative systems. The patent of 1883 marked the crucial first step, a testament to Johnson's foresight and mechanical genius, setting the stage for the establishment of a company that would carry his name and his vision into the next century.

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