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The Coney ISLAND Baby LABORATORY

INCUBATORS FOR NEWBORN INFANTS WERE DEVELOPED NOT IN A MEDICAL RESEARCH FACILITY BUT AMID BARKERS, SIDESHOWS, AND GAWKING CROWDS

BY GARY R. BROWN

"YOU MAY TALK, LADIES AND GENTLEMEN, you may cough. They will not hear you. They do not even know you are here. And now, suppose you all follow me. Just come this way, if you will, and we will meet the first of our temporary visitors." For forty years millions of revelers visiting Coney Island were drawn away from the clamor of roller coasters and shooting galleries to see these "temporary visitors"—tiny premature babies struggling to survive in prototypical incubators.

"The Infant Incubators" was Coney Island's oddest and, at times, most popular attraction, and its admission fees subsidized the development and application of groundbreaking medical technology. The premature infants on display were being treated with equipment and techniques far more sophisticated than those available at most hospitals; they had a survival rate unsurpassed at any medical facility in the world. The man behind this bizarre phenomenon, a pioneering pediatrician and showman who became known as the Incubator Doctor, was the first in the United States to offer infants this specialized care.

Martin Arthur Couney was born in 1870, probably in Alsace. After studying medicine in Breslau, Berlin, and Leipzig, Couney traveled to Paris in the 1890s for postgraduate work under Pierre Constant Budin, a leading pediatrician who was experimenting with new methods for treating premature infants. Until that time the medical profession had given them little hope, focusing instead on care of their mothers. As a result, premature babies rarely survived. According to Budin, however, by the 1890s medical advances had made this approach unnecessary. The modern physician, he wrote, "freed from anxiety as to the fate of the mother, can now devote his attention to the needs of the infant."

It had long been known that premature newborns, lacking the body fat of full-term infants, were unable to maintain a constant body temperature. Early efforts to treat premature newborns, both systematic and makeshift, centered on keeping them warm with ovens, heated bricks, woolen garments, or hot-water bottles. In 1853 a published medical study demonstrated that these newborns experience a rapid drop in temperature, respiration, and circulation that can often lead to death. Later research showed that full-term infants experience a similar drop, but their temperature quickly rises again. The challenge was to maintain the premature infant at a uniform temperature until its body functions stabilized.

In the 1870s Etienne Stéphane Tarnier, a physician, began to study the problem of premature infants and found that maintaining a constant temperature was not enough. Survival of premature infants requires isolation, faultless hygiene, appropriate feeding, and a warm, humid atmosphere. In 1880, inspired by a device used to incubate poultry, Tarnier introduced the first infant incubators—essentially large wooden boxes with glass lids and compartments to hold hot-water bottles. Using these, Tarnier was able to reduce infant mortality by 28 percent over a period of three years.

Budin was a student of Tarnier, and he quickly improved on Tarnier's design. He added a thermostat, installed glass plates to permit observation of the infant, and abandoned Tarnier's water bottles in favor of natural-gas heating. In 1893 Budin was appointed head of a special unit for premature infants at the Maternité in Paris, the first hospital to offer treatment for prematurity.

He and Couney got into the exhibition business quite casually. In an effort to obtain more hospital space by generating publicity for their work, Budin prevailed upon Couney to display six incubators at the Berlin Exposition of 1896. He persuaded an esteemed German obstetrician to provide newborns from Berlin's Charity Hospital. Hoping that the admission fees would cover his expenses, Couney opened the *Kinderbrutanstalt* (literally, child hatchery) at the exposition. To his surprise the *Kinderbrutanstalt* became the subject of music-hall jokes and cabaret songs, and thousands of visitors thronged the exhibit. Rather than just break even, Couney made a substantial profit. The exhibit also proved a technical success: According to Couney, all the infants on display survived.

In 1897, encouraged by his success, Couney moved to the Victorian Era Exhibition at Earl's Court in London. He immediately encountered resistance from the medical community. British doctors, scandalized by the notion of premature infants' being publicly displayed, refused to send Couney any, even though they themselves could offer the infants no other assistance. Relying on his association with Budin, Couney arranged to have three wicker baskets full of newborns sent across the Channel from Paris. Like the *Kinderbrutanstalt*, this exhibit was tremendously popular and a huge financial success; on one day alone it attracted thirtysix hundred visitors.

Unfortunately, Couney's success encouraged competitors, who were neither as qualified nor as scrupulous, to open incubator exhibits in London. These competing exhibits incurred the wrath of the British press, which had initially supported Couney's work. One editorial declared that "we should at once protest that human infirmities do not constitute a fit subject for the public showman to exploit… . What connection is there between this serious matter of saving human life and the bearded woman, the dog-faced man, the elephant, the performing horses and pigs, and the clowns and the acrobats?"

Soon thereafter Couney, accompanied by his incubators, traveled to the United States to establish an exhibit at the Omaha Trans-Mississippi Exposition of 1898. That same year Budin was appointed to a position at the Clinique Tarnier in Paris, the first medical facility dedicated to the treatment of premature infants. Using the incubator method, Budin reduced the mortality rate for infants weighing less than two thousand grams (about four and a half pounds) from 98 percent to 23 percent. In 1900 Couney returned to France to work the Paris World's Fair.

The next year found him back in the United States, setting up an incubator exhibit at the Buffalo PanAmerican Exposition. America offered the exhibitor substantial opportunities: at the time, there was a major exposition almost every year, and many visitors, wary of the notion of seeking pleasure for its own sake, welcomed the presence of educational shows on exposition midways. Couney decided to remain over here.

In 1903 Frederic Thompson, a showman who had operated an exhibit at Omaha and helped design the Buffalo midway, embarked on an ambitious project at Brooklyn's Coney Island, which (in the words of *The New York Times*) had "become famous for catch-penny schemes, toboggan slides, wheels big and small, and dance halls of more or less repute." During the winter of 1902-03 three thousand workers built Luna Park, then the most elaborate amusement park ever constructed, decorating it with a quartermillion electric lights. Thompson persuaded Couney to open a permanent exhibit at Luna Park, and although Couney eventually established incubator exhibits at amusement parks in Chicago and Atlantic City and demonstrated his technology at forty-three world's fairs, Coney Island would be his base for the remainder of his career.

The Coney Island infant-incubator exhibit was, for all practical purposes, a small hospital. An array of a dozen or so iron-and-glass incubators (the number varied) were heated by hot-water pipes connected to a central boiler. Air flowed into each unit through a triple filtering system from a forty-foot flue, believed to be above the "dust line." Drawing air through small exhaust fans mounted on the incubators, they provided a complete change of atmosphere every five seconds. A staff of trained nurses attended the infants, who rested on fine wire hammocks inside the incubators; wet nurses fed those strong enough to suckle, while the others were given mother's milk with an eyedropper. A baby's stay might last a few weeks to a few months, depending on how well it developed.

People greeted the attraction with a mixture of curiosity and naiveté. Early promotional literature for one of Couney's exhibits observed that "the public has peculiar notions concerning this institution [because] the word incubators, to the uninformed, is apt to suggest something more or less than the mere rearing or preserving of life." As a result, visitors often asked how the babies got into the incubators and where Couney had obtained the "eggs." On occasion someone would ask to have sexual intercourse with the incubator device—a truly astonishing example of the era's faith in technology. One infertile woman wrote to the American Medical Association certain that Couney could help her conceive.

Often the hardest task Couney's lecturers faced was simply convincing skeptical sideshow patrons, fresh from viewing bearded ladies and sword swallowers, that the babies really were alive. But whatever the motivation, visitors came in droves, paying a twenty-five-cent admission fee—two and a half times the going rate for Coney's other attractions—to see the display. Most were women, and the exhibit seemed to have especial appeal to childless women. Many customers returned daily or weekly to follow the progress of a particular infant; one regular came to Couney's incubators every week for thirty-seven years.

A journalist, reporting on a visit to Couney's exhibit at Luna Park, observed that "the babies proved to be very little ones, and very good and clean, and all were asleep in their small crystal houses which are kept at just the proper temperature to make the occupants grow and keep good and healthy. And the boy babies were tied with blue ribbons and the girl babies with pink, and the audience, mothers for the most part, discussed their relative merits and compared them with other babies of their acquaintance, including vivid memories of their own."

After Couney's arrival at Coney Island, the Brooklyn Society for the Prevention of Cruelty to Children launched an investigation into his activities. It was a serious matter; subsequent investigations by this organization would

result in the suspension of several Coney Island sideshows, including the public display of a pair of eleven-year-old Siamese twins. The society thought h outrageous that Couney was exhibiting infants for a fee and thought his procedures might be improper, but he convinced his critics that the admission charge was necessary to finance the care provided to the infants. (It also, he said, “bars the disinterested, undesirable class of visitors.”) As for his procedures, Couney pointed out that he offered better care than any facility in the United States. In the end the society lodged only one substantiated objection: Couney did not hold a license to practice medicine in the United States. He quickly obtained one.

Couney’s activities certainly stretched the bounds of conventional morality, and the doctor perpetually struggled to maintain an air of professionalism at his facility. To preserve some semblance of decorum amidst Coney Island’s mayhem, Couney developed and strictly enforced ethical and procedural guidelines for his operation. The most draconian applied to the lecturers who guided visitors through his exhibits; the introduction of a single joke into their presentations would result in immediate dismissal. On one occasion, after being told that the infants were attended by both trained nurses and wet nurses, a visitor asked how long it took for the former to become the latter. “That depends on how careful she is,” the lecturer replied, and although he was considered the exhibit’s best, Couney promptly fired him. Similarly, any nurse who accepted a gratuity or gift from a parent or visitor was subject to discharge. “We run the place absolutely ethical,” Couney told his staff, “not like a sideshow.”

Always concerned over the quality of the milk being fed to the infants, Couney hired a cooking staff to prepare meals for his wet nurses. Any one of them caught eating a hot dog or grilled corn from local concessions would be immediately fired. Fearing that anxiety could taint their milk, he also tried to protect the nurses from stress, offering advice, money, and gifts and sponsoring contests (the woman whose infants gained the most weight each week won a pair of silk stockings).

Couney also maintained strict procedures for dealing with the parents who brought infants to his facilities. In their presence the baby received an identification necklace, which remained undisturbed until the infant was reclaimed. The doctor never accepted or offered any payment for treating an infant, and the identities of children and parents were kept in complete confidence. Couney accepted children from “every station of life, high or low, rich or poor, black or white,” because “this institution for the preservation of infant life makes no distinction”—a remarkably progressive policy in a time when most places of amusement were segregated by law or custom.

When Dreamland, a grandiose rival to the highly successful Luna Park, opened at Coney Island in 1904, Couney established a second facility there. The infant incubators became the new park’s most popular attraction, but the opportunities offered by Dreamland almost turned to tragedy. The night before opening day in 1911, fire leveled Dreamland’s wood-and-plaster edifices, and while the blaze roared through the park, the eleven occupants of its incubators were rushed across Surf Avenue in baskets heated with hotwater bottles to the Luna Park incubators. Some infants had to double up for the evening, but not one was harmed.

In February 1907 Couney’s wife, Annabel, gave birth six weeks prematurely to a three-pound baby girl. The exhibits were closed for the winter season, the incubators in storage. Couney kept his daughter alive while friends rushed to retrieve an incubator. Hildegard Couney survived to become a registered nurse and one of her father’s principal assistants. Persistent but apparently unfounded rumors suggested that Hildegard was actually an abandoned incubator exhibition baby adopted by Couney. And indeed, Couney often had difficulty getting parents to accept babies reared in his incubators, perhaps because the parent-child bond had not been able to form.

In time Couney gained a following for his keen showmanship, and other sideshow proprietors often sought his advice. He also developed the ability to generate publicity with staged events, such as graduation ceremonies and reunions for his former patients. But on one occasion his instincts failed him. On May 28, 1934, Elzire Dionne gave birth to five infants—identical quintuplets—in Ontario, Canada. The babies, with an aggregate weight of twelve pounds, were being kept alive with heated bricks and flatirons when a representative of William Randolph Hearst offered Couney a large salary and payment of all expenses if he would fly to Canada with his incubators (accompanied, of course, by Hearst’s reporters and photographers) and assume care of the Dionne children. Couney declined, certain that the infants could not possibly survive—a belief well supported by his personal experience with multiple births: of the eighteen sets of triplets Couney treated over the years, only six complete sets survived.

But the children did survive—the first known set of quintuplets to outlive infancy—and the pediatrician responsible for their early care, Allan Roy Dafoe, became a celebrity along with his charges. “I was wrong,” Couney later lamented. “This case may not repeat itself in a millennium.”

Eventually the public’s interest in Couney’s exhibitions began to wane. Extension of the subway to Coney Island in 1920 had guaranteed continued crowds, but they spent less money. Couney lowered his admission fee to 20 cents in 1937, but by 1939 the overhead had risen to $140 a day, requiring seven hundred daily visitors just to break even. “Thirty-five years ago I could do more business with sixty thousand visitors than I can do with five

hundred thousand now," Couney told an interviewer in 1940. "Coney Island is so degraded … that people bargain to see my babies."

During the course of his career, Dr. Couney saved the lives of better than 80 percent of the roughly 8,000 infants brought to his facilities. Moreover, he gained widespread respect from American physicians. Doctors in the New York City area, and eventually the entire nation, rushed premature infants to Coney Island for treatment. As articles about incubator technology crept into American medical journals, they cited Couney's exhibits by way of illustration and comparison. Yet despite his achievements, Couney was for a long time unsuccessful in fulfilling his original mission, as envisioned by Budin in 1896, of generating adoption of the incubation of premature infants.

Why was the medical profession so slow to adopt Couney's methods? Mainly because the mortality rate was still so high for full-term infants that they seemed the most urgent candidates for concern and research. The overall infant mortality rate was reduced from 126 deaths per 1,000 births in 1900 to approximately 80 by 1926. During this same period the mortality rate for premature infants stayed virtually unchanged. As a result, by 1925 prematurity had become the largest cause of infant mortality, accounting for 36 percent of all deaths in the first week of life. The problems of prematurity, as well as the methods Couney had been using since the 1890s, finally began to attract greater interest.

In 1922 Dr. Julius Hess of Chicago published the first textbook dealing exclusively with the treatment of premature infants. Couney helped prepare it. Seventeen years later—and thirty-six years after the infant incubators made their debut at Luna Park—Cornell University's New York Hospital established a training and research center for premature infants. It was hailed as "the first of its kind on the Eastern seaboard," but it differed little from Couney's facility.

Couney considered the opening of Cornell's center a personal victory. "I made propaganda for the preemie," he proudly told his nephew, and although he still had eleven years to live, he added, "My work is done." He closed his Coney Island exhibit in 1943.

Gary R. Brown wrote "Sawing a Woman in Half" *in the Winter 1994 issue.*