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SWEET LULLABY ON THE MIDWAY

The Pay Streak was one of the most popular areas of Seattle's 1909 Alaska-Yukon-Pacific (AYP) Exposition. This was the amusement center (midway) which had a carnival like atmosphere. However, besides the usual thrill rides and freak shows associated with such areas, educational exhibits were also included. One of the most popular displays proved to be the Baby Incubator Exhibit. It was situated on the South Pay Streak between the Gold Camps of Alaska and the Temple of Palmistry. Exterior pictures show a two story building with an attached cafe. There was a large sign overhead that read "Incubators With Live Infants."¹ Interior pictures show babies lying in glass incubators surrounded by women in white uniforms and caps and a gentleman in a lab coat.²

So why were babies on display in incubators within an amusement center? To understand why this was happening, one must know some of the history of the care of newborn infants. In 1909, at the time of the Alaska-Yukon-Pacific Exposition, most babies in the United States were born at home, not in hospitals. Newborns and their mothers were usually cared for by midwives and other family members. There was a high mortality rate among full term infants so they were the focus of concern and research by mainstream medicine of the day. The premature infant (defined as 37 weeks gestation or less) was a very low priority in the United States.³

Although the baby incubator had been developed in Europe in the 1880's, it would not be accepted into United States hospitals until the 1940's. Incubators for premature babies were developed due to long standing observation that these babies could not maintain a constant body temperature. They often experienced a rapid drop in temperature just as full term infants do but unlike full term infants, they were unable to recover quickly. A way was needed to maintain a premature infant at a constant body temperature until its body could do this on its own.⁴

In studying this problem, in the 1870's, Dr. Etienne Tarnier also found that besides a constant temperature, survival of the premature infant depended upon

strict hygiene, isolation, a humid as well as a warm environment and specialized feeding. In 1880, he introduced the first infant incubator and reduced mortality by 23% over a three year period.⁵ Dr. Pierre Budin, a student of Dr. Tarnier, improved upon the original incubator design and became the head of the first hospital to treat premature infants, the Maternité, in Paris in 1890. The French led the way in the treatment of the premature infant due to their country's concern over its depopulation in the last half of the nineteenth century.⁶ The saving of any life through new technology was encouraged and widely accepted in France but this was not the case in the United States which had a high rate of immigrants each year.⁷ In an effort to gain international interest for his work, Dr. Budin sent one of his colleagues, Dr. Martin Couney, to set up a baby incubator exhibit at the Berlin Exposition in 1896. Babies from a charity hospital were obtained and admission was charged to view them. The exhibit proved to be very popular and attracted many visitors. A large profit was made much to the surprise of Dr. Couney. Also it was a success in that all the babies on display survived at a time when usually 98% of all prematures died.⁸ A similar exhibit by Dr. Couney in London in 1897 proved to be successful as well. Dr. Couney's first exhibit in the United States was in 1898 at the Omaha Trans-Mississippi Exposition. He returned to Paris for the Paris World's Fair in 1900 and came back to the United States in 1901 for the Buffalo Pan American Exposition. After this expo, he decided to stay in the United States because there was usually a major exposition or World's Fair every year where he could display the babies. These expos took advantage of the many visitors who besides wanting to be entertained with amusements and freak shows, also wanted to be educated.

Dr. Couney eventually opened a permanent exhibit on Coney Island that survived for forty years. He used this as a base when he also operated other incubator exhibits at various expositions and world fairs. During his career he purportedly treated about 8,000 babies and saved at least 6,500 of them.⁹ He 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."¹⁰ The babies were obtained from referrals from other doctors, and from desperate parents. One had even been his own daughter, Hildegarde, who was born six weeks prematurely in 1907. She would grow up to be a registered nurse and assist her father in his work.

Feeling that it was outrageous to display infants on a midway in an amusement park, the Brooklyn Society for the Prevention of Cruelty to Children did investigate Dr. Couney's Coney Island exhibit in the early 1900's. This organization had the power to shut down exhibits and subsequently did just that to

some of Coney Island's sideshows. However, Dr. Couney was able to convince the investigators that he offered better care for the premature baby than any facility in the United States.¹¹ The exhibit remained open and the society only lodged one complaint which was that Dr. Couney needed to obtain a medical license to practice in the United States. He did obtain one soon afterward.

While maintaining the Coney Island exhibit like a small hospital and insisting on strict professional conduct in the exhibit, it did appear that Dr. Couney enjoyed some aspects of showmanship. He staged events for publicity including graduation ceremonies and incubator baby reunions. He was said to enjoy seeing the crowds and listening to their comments about the exhibit.

Never taking money from the parents of his patients, Dr. Couney's salary which was generated from admission fees, was purported to be more than the average general practitioner of the day but less than that of a specialist.¹² He did not maintain his own private practice outside of the Coney Island exhibit for several reasons. "I work hard enough in the season," he said. "Twenty four hours a day in attendance."¹³ He also said that he did not want to compete with other Brooklyn doctors. These doctors always brought him premature babies for his exhibit. He felt they would not do this if he set up a general practice that competed with them.

Dr. Couney would retire in 1944 when Cornell's New York Hospital opened the city's first center for premature infant care. Upon his retirement he stated, "I made propaganda for the premie. My work is done."¹⁴ Dr. Couney died six years later in 1950. He had lived long enough to see infant incubators be accepted into mainstream medical practice in the United States. He was inducted into the Coney Island Hall Fame in 2005, not as a freak show operator, according to curator Charles Denson, but due to the fact that he had saved many lives. Some of his still surviving incubator babies were in grateful attendance.

It is uncertain as to what exact methods were employed in the day-to-day activities of the Alaska-Yukon-Pacific (AYP) Baby Incubator Exhibit as a connection to Dr. Couney or his well known competitors, Dr. Edward Bayliss and Dr. John Zahorsky, cannot be established. However more than likely it incorporated some of the methods of other well documented exhibits at the time. Since there had to be a way to attract visitors, barkers usually were situated outside the exhibit, loudly trying to entice the crowds inside to pay to view the wee preemies. The exhibit was dependent on admission fees as the parents of the babies were not charged for their care. Also, many of the babies who were being

cared for were orphans. The AYP Baby Incubator Exhibit was noted to be different in this respect as it had additional revenue sources in a cafe and a drop in daycare center. In regards to the daycare center, the *AYP Daily News* of June 1, 1909 stated that it had trained nurses “with every scientific appliance and sanitary arrangement to guarantee health and freedom of danger for tired mothers to leave their children.”¹⁵ Apparently whoever ran this exhibit was ahead of his time in developing a way to make more money.

In contrast to the loudness outside, inside such exhibits a quiet and studious atmosphere was maintained. Lecturers seriously explained the care of the infants to the passing visitors who were usually separated from the row of incubators by a long railing. The *Seattle Times* of July 18, 1909 stated “the knowledge gained is worth a visit” in reference to the AYP exhibit.¹⁶ Also, the *Seattle Times* of August 8, 1909 stated that “the visitor to the baby incubators learns a great deal about life and its manifold phases. None who visit the incubator building will leave without feeling grateful for the opportunity that has been presented to study embryonic life at close range.”¹⁷

While listening to the lecturers, the visitors could view the babies sleeping in their incubators, often wearing blue bows to signify boys and pink bows to signify girls. The incubators of the day were made of glass and very little metal making the babies easy to view and acting like little showcases. The incubators were supported by vertical steel rods to accommodate a perfect height for observation. The air was drawn into the incubator and first passed through a filtering and heating system before it reached the baby. Then it was drawn out the top, allowing for a complete exchange of air, in some models of the time, of every five seconds.¹⁸ The babies usually lied atop wire racks with pans of water underneath to keep the air humid.

Wet nurses and registered nurses usually lived in the exhibit as the infants required twenty four hour care. The wet nurses were usually maintained on strict diets so the babies would have the best nutrition possible. As premature babies were usually unable to suck adequately, other methods besides bottle and breast feeding were developed. This included gavage feeding where a tube was put down directly into the stomach so the milk could be poured directly into it.¹⁹ Also, nostril feeding was employed, with a small drop of milk being spooned into the nostrils to be inhaled.²⁰ Babies were usually fed every two hours and weighed before and after each feeding to keep track of their progress. Regular bathing and strict hygiene were also considered essential. After gaining enough weight and

sufficiently strong, babies graduated from the incubator to a nursery for a week or several weeks observation.

The exhibit often made a good amount of its income on repeat visitors. These were customers who came back frequently to check on the progress of a particular baby. Newspaper articles helped to pique the interest in an individual baby's progress. The *Seattle Times* article of July 4, 1909 stated that "Baby Dorothy has many offers of a home." It noted that she had just graduated to the nursery. The same article noted that "Indian boy Jack from Tacoma was making progress and may soon graduate to the nursery."²¹ One week later, the *Seattle Times* article of July 11, 1909 noted that Baby Dorothy had left the exhibit and was in her new home in Rockford. It went on to say Baby Tony had been added to the incubators and that hopefully he would be adopted when he graduated. It noted that all the incubators were full.²²

That an exhibit of this kind would be very popular is not hard to understand. Sweet little babies being displayed in never before seen glass boxes must have been fascinating. Knowing that many were orphans in need of homes added to the interest. The fact that they were being saved in a futuristic way was not lost on the public or the medical community. Doctors in the communities of the Baby Incubator Exhibits often referred their patients to the exhibits. This was documented during the AYP expo in a June 18, 1909 article in the *AYP Daily News* titled "Incubator Saves a Baby's Life." It stated that a Seattle physician, Dr. Arthur Gray, had a patient who delivered unexpectedly and prematurely. It was reported "feeling that prompt measures were necessary if the death was not to result, the physician placed mother and child in an auto and raced with them out to the Exposition grounds." The fact that he chose to take his patient and the baby there and not to a local hospital demonstrates that he felt they had a greater chance of survival at the exhibit. The article went on to explain that since automobiles were not permitted within the Exposition that at first it was refused admittance. However, President Chilberg was notified and admittance was granted and "the trip down the Pay Streak was accomplished at breakneck speed and the baby was placed in the baby incubator, while the emergency hospital in the rear of the attraction was converted into a temporary hospital and put to practical use by placing the young mother there." Stating that both mother and baby were doing well several days later, the article read that "the practical nature of the baby incubator has thus been demonstrated. That the institution is one destined to save many lives and bring happiness into many homes is proven by the results obtained from the baby that was brought to the incubator when almost at death's door and was resuscitated by means of the modern miracle."²³ These words would prove

correct although it would take over three decades for incubators to become standard hospital care for the premature infant in the United States. In fact, this author's husband was saved by an incubator in 1946 at Bremerton's Harrison Hospital. It was one of the Puget Sound area's first hospitals to have an incubator ward.

What at first glance from our perspective today seems bizarre to find premature babies being exhibited in the middle of an amusement center, was in reality a very important part of the history of neonatology. It allowed the pioneers in the care of premature infants to practice their profession, attract attention to the public and the medical community and to save many lives. Perhaps to fairgoers of the day who were used to being entertained by freak shows displaying bearded ladies, conjoined twins or the like, a Baby Incubator Exhibit may not have seemed bizarre. As there was a tradition of United States expositions to educate the public and for inventors to promote their new products, fairgoers were probably expecting to find exhibits displaying future technology. This tradition had started at the first great United States exposition in 1876 in Philadelphia when its primary focus was the showcasing of new inventions. These inventions consisted of Edison's duplex telegraph, the typewriter, the sewing machine and the telephone. As President McKinley stated at the Buffalo Pan American Exposition in 1901, "Expositions are the timekeepers of progress. They record the world's advancement. They stimulate the energy, enterprise and intellect of the people and quicken human genius."²⁴ With its combination of live little humans on display and new technology, the Baby Incubator Exhibit was a fascinating example of what fairgoers at the time had an opportunity to view. It was truly an amazing attraction that still stimulates interest and dialogue today.

About the author: Patricia Miller Clayton is a native Seattleite and graduated from the University of Washington School of Nursing. She is currently employed as an Occupational Health Nurse at the University of Washington. Coincidentally she works in the Health Sciences Building which was the site of the South Pay Streak where the AYP Baby Incubator Exhibit existed one hundred years ago.

¹ UW 27915, University of Washington Libraries, Special Collections Division.

² Nowellx1528, University of Washington Libraries, Special Collections Division.

³Baker, Jeffrey P. *The Machine in the Nursery*. Baltimore: John Hopkins University Press. 1996 , p. 13.

⁴Brown, Gary R., “*The Coney Island Baby Laboratory*”, *American Heritage of Invention & Technology Magazine*, Volume 10, Issue 2, Fall 1984, http://www.americanheritage.com/articles/magazine/it/1994/2/1994_2_24.shtml

⁵Brown, Gary R., *Ibid*.

⁶Baker, Jeffrey P., *Ibid*, p. 45.

⁷Baker, Jeffrey P., *Ibid*, pp. 111-112.

⁸ Brown, Gary R., *Ibid*.

⁹ Brick, Michael, “*And Next to the Bearded Lady, Premature Babies*”, *The New York Times*, June 12, 2005, <http://www.nytimes.com/2005/06/12/nyregion/12coney.html?ei=5090&en=a427f250bfd4ffa0&ex=1276228800&partner=rssuserland&emc=rss&pagewanted=print>

¹⁰ Brown, Gary R., *Ibid*.

¹¹ Brown, Gary R., *Ibid*.

¹² Leibling, A.J., “*A Patron of the Preemies*”, *The New Yorker*, June 3, 1939, pp. 20-24.

¹³ Leibling, A.J., *Ibid*.

¹⁴ Snow, Richard F., “*Martin Couney*”. *American Heritage Magazine*, Volume 32, Issue 4, June-July 1981, http://www.americanheritage.com/articles/magazine/ah/1981/4/1981_4_90.shtml

¹⁵ Untitled article, *AYP Daily News*. June 1, 1909, p. 9.

¹⁶ Untitled article. *Seattle Times*. July 18, 1909, p. 20.

¹⁷“Baby Incubator at A-Y-P Exposition.” *Seattle Times*. August 8, 1909, p. 20.

18 Snow, Richard F., Ibid.

19 Leibling, A.J., Ibid.

20 Hart, Joseph, “*The Child Hatchery*”, Minneapolis News, September 24, 2003, <http://www.citypages.com/2003-09-24/news/the-child-hatchery/>

21 Untitled article. Seattle Times. July 4, 1909, p. 13.

22 Untitled article. Seattle Times, July 11, 1909, p. 24.

23 “Incubator Saves a Baby’s Life.” AYP Daily News. June 18, 1909, p. 3.

24 Baker, Jeffrey P. *The Machine in the Nursery*. Baltimore: John Hopkins University Press. 1996, p. 93.