Abstract
Over the centuries, the life of prematurely born infant was in the hand of fate, his almost certain death was accepted as unavoidable and survival regarded as a miracle. At the end of the 19th century, the first simple models of incubators were created and soon exposed in front of the ordinary people ready to pay for observing live little infants. From 1896 until the 1940s, commercial shows were organized on the occasion of the great expositions, fairs as well as in amusement centers, lunaparks. The man who sacrificed over 40 years of his life to hold such shows was Martin Couney, called Incubator Doctor. In 1934, Martin Couney received an unusual proposal to take care of quintuplets Dionne born in a small farmhouse in Canada. Five identical girls were born nearly two months premature, all together weighed about 5 kilograms, the smallest girl weighed only 875 g. Never before, quintuplets survived more than a few days. Martin Couney refused this proposal – he was sure that the quintuplets had no chance of survival. The Quintuplets Dionne survived despite all the adversities – lack of prenatal care, prematurity and extremely low birth weight. They were treated as a prank of nature. They became the tourist attraction bigger than The Niagara Falls (Dent. Med. Probl. 2006, 43, 2, 313–316).

Key words: incubator, prematurity, history of neonatology.

Streszczenie

Słowa kluczowe: inkubator, wcześniactwo, historia neonatologii.

“The Child Hatchery”
Over the centuries, the life of prematurely born infant was in the hand of fate and his almost certain death accepted as unavoidable. Relatively early, it was observed that one of the most significant problems related to prematurity were termoregulation defects.

At the end of the 19th century, the first primitive models of incubators were created. The use of those simple devices in the Maternité Hospital in Paris almost halved the mortality of new borns...
weighing less than 2000 g. Incubators, gradually modernised, were soon exposed in front of the ordinary people who were ready to pay for observing live little infants in incubators. From 1896 until the 1940s, commercial shows were organised during great expositions, fairs as well as in amusement centers, lunaparks. The man who sacrificed over 40 years of his life to hold such shows was Martin Couney called Incubator Doctor.

In 1880, Stephane Tarnier, a renowned Parisian obstetrician and chef of Maternité hospital in Paris, when visiting the Jardin d’acclimatation saw the new incubators for chicken which were experimented according to the very ancient plans found among the old Egyptian hieroglyphs. These incubators were devised by zookeeper of the Paris Zoo for hatching poultry. Tarnier had the idea to replace the egg with a premature infant. He asked Odile Martin, a poultry raiser of the Jardin des Plantes, for construction of an infant incubator on the plan of a chicken incubator. He wanted to create a similar device sufficiently ventilated and large enough to hold premature infants. The result was the couveuse – an insulated wooden box with two chambers, with an opening for air at the bottom and a cover of glass. The lower chamber was filled with water heated by an oil lamp which in turn warmed the air in the upper chamber where the newborn was kept. The first incubators were installed and used at the Paris Maternité Hospital in 1880. Tarnier’s discovery decreased the neonatal death rate in Maternité Hospital to 38 from 66% among newborns with birth weights less than 2000 grams [1–5].

Tarnier’s successor was Professor Pierre Budin – the famous pioneer in premature infant care. Martin Couney was Budin’s assistant. Pierre Budin wanted to propagate the idea of isolation of premature newborn at the Berlin Exposition in 1896. He chose his disciple, Couney, to demonstrate this technical discovery – incubator. Professor Budin sent Martin Couney to the Berlin Exposition to exhibit a newly modified convection-ventilated incubator. Couney established a pavilion with six incubators and exhibit six premature infants. This was considered a small risk since they were expected to die in any case. Couney gave the title for the exhibit “Kinderbrutanstalt” which means “child hatchery”. The hatchery was celebrated in comic songs and musical gags, nightclub singers performed songs about the hatchery in Berlin, before the exhibit was opened. From the first day of the Exposition, the pavilion was full of people – curious Berliners – each of whom paid one German mark to look at the premature infants. From a medical point of view, the demonstration was a success because all of these babies survived despite prematurity and low birth-weight. After this exhibition, Martin Couney received the name “The Incubator Doctor” [6].

The Incubator Doctor

Following his successes in Berlin, Couney went to London next year to set up the second exhibit. The show in England was almost a flop as he could not secure any infants from local hospitals. Conservative British doctors did not want to loan to him English neonates. Dr Couney was forced to go to Paris, where he was given “three wicker baskets full of Parisian premature babies”, with them he crossed The English Channel [7]. After the second successful exhibit, Martin Couney resolved to become a professional showman. He soon immigrated to the United States and rapidly built an empire of incubator sideshows. In 1898 he opened his first show with premature babies in incubators. For the next half century, “Couney babies” were exhibited in a variety of fairs and traveling shows across large parts of America, and not only (1898 the Trans-Mississippi Exposition in Omaha, 1900 the Paris World Exposition, 1901 the Pan American Exposition in Buffalo, 1903 Coney Island (Martin Couney’s headquarters for 40 years), 1905 Minneapolis, 1906 Portland, 1908 Mexico City, 1910 Rio de Janeiro, 1912 Chicago’s White City, 1913 Denver, 1915 Panama Pacific International Expo in San Francisco, 1933 Chicago Century of Progress Exposition, 1939 New York World’s Fair). Incubator Doctor established a permanent exhibition (Coney Island) in 1903. Coney Island in New York was the longest-running Couney’s exhibit. This particular exhibit ran from 1903 to 1943 [6].

The public was fascinated with the show, people often came back to look at a particular baby. However, when Martin Couney first came to Coney Island, America’s medical establishment did not approve of his methods. The idea of displaying infants at expositions was very controversial as well at this time. Many people protested Couney’s actions. They believed that it was immoral to display infants in a public place, and that Couney’s main goal was not to save premature infants, but to make money, because he charged entrance fees for spectators to come in and stare at the babies in their glass boxes. “Nothing makes Dr. Couney angrier than the imputation that he is merely a showman, because he charges admission to his exhibit”. Martin Couney underlined educational value of the shows. “All my life I have been making propaganda for the proper care ofemies who in other times were allowed to die.
Everything I do is strictly ethical” he said [7]. He persuaded that he is not a showman but an advocate of premature infants. Babies that were born prematurely were placed in his care by hopeful mothers at a time when most hospitals did not have incubators to care for them. He employed wet nurses so that the babies received natural mother’s milk. Boys with blue ribbons and girls with pink ribbons were displayed in their small houses of glass. To cover expenses, he charged 25 cents to view these children and his method to keep them alive. In fact, Martin Couney handled more premature babies than any other hospital in the world, and his rates of survival were enviable. By the time of his death in 1952, it is estimated that approximately 8,000 premature infants had been raised across the USA in the course of Couney’s shows and immensely popular incubator exhibitions. Particularly childless women were often his visitors. They returned to the exhibit again and again to observe the progress of an especially small premature baby.

Eventually, Couney’s method of care gained respect in the medical field, since his success rate for baby survival was astonishingly high – he saved the lives of thousands of newborn. From the time Martin Couney came to Coney Island until he retired in 1943, he saved over 6,500 of the 8,000 prematures brought to him – an incredible record, rates of survival unknown in organized medicine in that time. Martin Couney saw that the exhibits stimulated interested in the care of prematures. In the early XXe century incubator baby shows offered a standard of technological care not matched in any hospital of the time [4]. The incubator exhibited played a key role in the transition to caring for premature infants in hospitals. The Coney Island exhibition led to the building of many more such hospitals. Many hospitals used equipment from the exhibits [7].

Interestingly enough, the actual year and place of Dr Couney’s birth are not known but is believed that he was born in France or... in Germany, in Breslau (Wroclaw) on either 31 December 1860 or 30 December 1870. He studied medicine in Breslau, Berlin and Leipzig [6].

### The Dionne Quintuplets

In 1934 Incubator Doctor received an unusual proposal to take care of quintuplets Dionne born in Canada. The Dionne Quintuplets were born in a small farmhouse on May 28, 1934 near the French-Canadian village of Corbeil in northern Ontario. Elzire (26 years) and Oliva Dionne, the Quints’ parents, already had six children. Five girls (Annette, Cecile, Emilie, Marie and Yvonne) were born in a small village, nearly two months premature, all together weighed a little more than 5 kilograms, the smallest girl weighed only 875 g. Never before, quintuplets survived more than a few days. The first antibiotics were not available until the 1940s. In many houses there was still no electricity nor running water. Martin Couney refused this unusual proposal – he was sure that the quintuplets had no chance of survive. “I was wrong, like bigger men than I am” he said after years [7].

After the birth of the girls, when it was thought unlikely that they would survive, Oliva Dionne, their father, signed a contract to exhibit the Quints at the Chicago Century of Progress Exposition. But the contract had been never realized. As crowd of journalists and photographers saw the small village and the Dionne home, a panic was created in the newspapers over the poverty of the Dionne parents, the fragility of the quintuplets’ health, and the fact that Canadian Quints were about to be sold to the American showmen. The Ontario Government took them away from their parents and placed in a specially-built hospital, which became a major tourist attraction: “Quintland”. A board of guardians which excluded Oliva and Elzire Dionne was set up to make all decisions concerning the lives of these five girls for the next years. The Dionne Quintuplets Guardianship Act in March 1935 made the girls wards of the state until their 18th birthday. The Quints lived in a hospital, in time a school and a horseshoe-shaped playground with two observation decks were built. Dr. Dafoe, who had assisted at the Quints’ birth made nearly all decisions about their education and daily routines. Separated from their parents and siblings, the Quints were put on display for millions of tourists at Quintland. The Dionne Quintuplets became worldwide attraction. Miracle of survival, the poverty of their parents, and the controversy over their guardianship, made them the sensation all over the world [8–10].

When the Dionne Quintuplets were born, Canada was in the most severe economic depression in its history. Nearly a million Canadians were out of work. The miracle of the Quintuplets’ birth and survival provided a welcome distraction from the sad reality of the day. The Dionne Quintuplets survived despite all the adversities – despite ignorance and backwardness of their parents, improper mother’s nutrition, lack of prenatal care, despite of their prematurity and extremely low birth weight. News about this miracle spread all over the world. Crowds of people had visited this Canadian province in order to see five identical sisters. They were treated as a prank of nature. By the time they were ten years old, Quintland was visited by 4 mil-
lion people. They became tourist attraction bigger than The Niagara Falls. “It was not human. It was a circus” concluded Cecile Dionne in 1995. Americans, as well as people around the world, waited for the news of their activities and development. The public waited for any word of information. Americans were bombarded with countless visual images of the girls. Full-page advertisements of products ranging from Colgate toothpaste to corn syrup, as products profiting their famous image spread across the country. “It was impossible to escape the Dionnes”. The Ontario government made millions from the dozens of commercial products advertised by the famous Quints [10–12].

After nine years (in 1943), thanks to the efforts of Franco-Ontarian organizations and the legal battle of their parents, the Quintuplets returned to the family. But there was no happy end in this history. The Quintuplets never got on with their father, and were not particularly close to their siblings, they were never able to establish a normal relationship. Both Dionne parents died at the age of 77. They had three other children after the quintuplets – all boys. In 1998, Cécile, Annette, and Yvonne Dionne, the three surviving members of the Dionne quintuplets, accepted the Ontario government’s offer of compensation. They received 4 million dollars tax-free from the province. The Ontario Premier visited them in their home in St-Bruno, a Montreal suburb, to apologize personally to them for their mistreatment [9, 10].

At the end of the 19th century the neonates occupied an ambiguous niche between the domains defined by pediatric and obstetric specialists. Neither group was ideally suited. Newborn occupied “no man’s land” [3]. Martin Couney’s “child hatchery” was a bizarre example of a newborn sideshow mixed with an experimental method of treatment that eventually became a universally accepted method of neonatal care. This colorful, unusual and controversial chapter in the history of medicine ended with a creation of hospitals specializing in the care of premature infants.

References

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