

The results of Drs. Gerstenberger and Ruh's clinical trial of SMA were favorably received by the pediatric profession, and increasing numbers of physicians in the Cleveland area requested the formula. Frohring, whose penchant for science was complemented by a mind for business, recognized that SMA had great commercial potential and suggested that Dr. Gerstenberger obtain a patent on the formulation. Dr. Gerstenberger immediately refused. In those days, a professional man of science worked for the benefit of mankind. To accept money for his efforts was not only in poor taste, but unethical.

Frohring persisted, arguing that sooner or later some laboratory would start producing the formula, and such preparations might not be made as carefully as those at Babies' Dispensary. He pointed out that babies would not thrive on ineptly produced SMA, and that Dr. Gerstenberger's credibility would suffer as a consequence.

Frohring proposed a solution that would both protect Dr. Gerstenberger's reputation and benefit babies, suggesting that a reputable dairy company, such as Telling-Belle Vernon, be given exclusive manufacturing rights for a patented formula under the terms of a royalty agreement. The patent could be turned over to Babies' Dispensary, with all royalties accruing to the hospital for use in funding pediatric research and maintaining a library. Convinced at last of the patent's value, Dr. Gerstenberger applied for a patent on December 18, 1919, and assigned all rights to Babies' Dispensary and Hospital. U.S. Patent 1,445,434 was granted on February 13, 1923.

Patented Feb. 13, 1923.

1,445,434

UNITED STATES PATENT OFFICE.

HENRY J. GERSTENBERGER, OF CLEVELAND, OHIO, ASSIGNOR TO THE BABIES DISPENSARY & HOSPITAL OF CLEVELAND, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

COMPOSITION OF INGREDIENTS FOR ARTIFICIAL FOOD.

No Drawing. Application filed December 29, 1919, Serial No. 367,958. Renewed December 27, 1922.

Newborn SMA grows by leaps and bounds

On December 27, 1919, the Telling-Belle Vernon Company was licensed by the Babies' Dispensary and Hospital to manufacture, sell, and distribute SMA for a period of seven years with an option to renew for another seven years. Under the terms of the contract, the hospital would receive a royalty of half a cent on every quart of SMA sold, with a guaranteed minimum of \$10,000 per year. The formula was to be made daily at the company's Walker-Gordon Laboratories, where prescriptions for Dr. Rotch's "percentage" formulas had been filled several decades earlier.

Commercial production of SMA began without great fanfare. Dr. Gerstenberger simply announced at a meeting of the Cleveland Academy of Medicine that SMA would be available by prescription from the dairy company. The price of SMA was set high—50 cents a quart—to protect the sales of the company's other special milk products. However, to ensure a supply for the babies in the charity wards, the product was sold to hospitals at 10 cents a quart.

At the time of contract negotiations, the hospital had been preparing about 1,000 quarts a month for delivery in bottles to Cleveland physicians. When Telling-Belle Vernon began operations, it delivered to the same customers. At the end of the second month, 2,000 quarts were produced. To keep up with the growing number of prescriptions, production increased at the rate of 1,000 quarts a month for the next 14 months.

Bolstered by the practicing physicians' high regard for SMA, sales continued to grow. It soon became apparent that larger production facilities were needed. It was also decided that SMA production should be separated from the regular milk and ice cream business. In 1921, Telling-Belle Vernon formed a new subsidiary, the Laboratory Products Company, which was to focus on SMA. The Telling-Belle Vernon Creamery at Mason, Michigan, was turned over to the new company for the production of SMA. Frohring was made a director and put in charge of operations. This event marked the birth of the infant formula industry in the United States.

One of Frohring's top priorities was to change the manufacturing process so that SMA could be supplied in powdered form in cans, permitting more efficient and cost-effective production. Once this mission was accomplished, it was possible to offer a one-pound can of SMA at a price of \$1.20. With each can yielding one gallon of SMA, consumers could now obtain SMA for just 30 cents per quart. Additionally, the availability of powder allowed the Laboratory Products Company to satisfy demand for SMA from distant parts of the country.

With SMA now available from the Mason plant, first as a powder, then as a canned concentrated liquid, sales increased. The prescription-only formula,



which was promoted to physicians, had won the approval of the medical profession. After all, the formula had been created by one of their own, and a share of the profits was supporting pediatric research. Moreover, physicians found their little patients thrived on it.

Eager to expand SMA sales, Frohring masterminded the formula's first promotional efforts—a direct mailing campaign to doctors that included an offer for two one-pound sample cans of SMA. As expected, the sampling proved effective and the SMA business prospered. Later, as the business grew, a small detail staff was hired.

Royalties from SMA quickly impacted pediatric research at Babies' Dispensary and Hospital. By 1924, the hospital had acquired an extensive library supported by a \$20,000 endowment. Royalty money also covered half of the expense of the hospital's laboratory floor. In 1925, financed in part by royalties from SMA products, the Babies' Dispensary and Hospital opened new headquarters on the Western Reserve University campus in Cleveland. This facility, called Babies' and Children's Hospital, was one of the best in the nation for infant care and for the training of pediatricians. The Babies' Dispensary and Hospital was the beneficiary of more than \$1 million in royalties during the lifetime of the patent.

In 1925, SMA was distributed internationally for the first time when shipments were sent to England and the Philippines. In 1929, a distribution center was opened in Toronto. Later that year, export trade was expanded through a two-year contract with British Feeding Meal and Milk Products, Ltd., to sell SMA in England and Ireland.

