



Hans Joachim Laue

## What Times... (Part I)

In his five-volume „Diary of Bookbinding and Print Finishing“ (in German: „Tagebuch der Buchbinderei und Druckweiterverarbeitung“), which he published himself, [Hans Joachim Laue](#), a trade journalist who was born in 1943 and has been retired for several years, looks back on 500 years of the graphic arts trade and printing industry. In two blogs, he lets you take a look at his valuable reference work, focusing on the pioneers Friedrich von Martini, August Kolbus, Hans Müller and Kurt Stahl. Whether nations are counted by means of punch cards or whether airships rise, that did not prevent company founders from going their own ways. Thus, the Muller Martini brand also conceals a pioneering spirit in various facets.

Let's take a look back: On February 1, 1972, the domestic sales departments and international sales companies, separated from Grapha Maschinenfabrik Hans Müller AG in Zofingen and from Martini Buchbindereimaschinenfabrik AG in Felben, began operating as Muller Martini AG. Since then, Zofingen has been home to the headquarters of the new company with its international sales subsidiaries and agencies. The Muller Martini brand family was formed from two good names. But hidden behind this brand are other personalities who sought and found their way in idiosyncratic times.

### Friedrich von Martini

The first thread sewing machine was built in 1890 under the company name of Mechanische Werkstätte Martini, Tanner & Co. in Frauenfeld. The engineer [Friedrich von Martini](#) (1833–

1897) and the mechanic Heinrich Tanner (1832–1898) had taken over the company in 1863, which had previously still been manufacturing the first thread sewing machines under the old company name. However, the young mechanical engineering company initially focused on folding machines in the bookbinding sector.

At the [London Industrial Exhibition of 1851](#), which is regarded as the first world exhibition, the Englishman James Black was awarded a prize medal for a folding machine he had invented, even though the design was said to have had a number of shortcomings. Folding in bookbinderies at that time was done by women with a folding leg. Skilled and fast folders are said to have produced an average of 300 sheets of paper per hour for the octavo book format – i.e. three folds per sheet to produce 8 sheets or 16 pages.

Ten years later, the Maschinenbauanstalt Frauenfeld in Stuttgart presented two types of folding machine, which won the approval of experts with their excellent performance. The model for books and brochures was designed for an output of 1400 sheets per hour and cost 1200 Swiss francs. For 1500 francs, the machine type for folding various newspaper format sheets in three to six fractions was available and even performed 3000 sheets per hour – ten times more than would ever have been possible manually. These machines were driven by the steam engine via transmission belts.

#### **From the folding machine to the double folding machine**

These machine types were produced almost unchanged for 20 years, a total of around 350 units – despite the 20-year slump in the world economy in the early stages of industrialization that set in after the Vienna stock market crash in 1873. This phase, also known as the long depression, boosted demand for reading material. And the further expansion of the rail network did the rest. Most of the folding machines were exported to Germany. They were transported by rail, which was still a young transportation technology at the time. The assemblers traveled in the 3rd class of the railroad companies.

Friedrich von Martini further developed the single folding machine into a double folding machine, which was ready for the market in 1876. Around 300 units were produced. The double folding machine is still illustrated as an example in the multi-volume „Brockhaus“ of 1892, a leading German encyclopedia. The innovative spirit of the Martini entrepreneur led to numerous patents and proprietary designs, including around 1890 a thread sewing machine, which was constantly improved through the acquisition of licenses, up to the „National I“ booklet-making thread sewing machine patented in 1900 – a cornerstone of the company's enduring world reputation in bookbinding machinery.

#### **1890: Hollerith punched card**

Meanwhile, in the distant USA, the 11th census takes place in June 1890. The punch card technology of inventor Herman Hollerith (1860–1929) from Buffalo in the state of New York is used to evaluate the questionnaires. With this first large-scale use of machine data processing, the U.S. data collectors need just over a year to count the population of nearly 63 million citizens.

By comparison, the 10th census in 1880 takes almost eight years to arrive at the result of 50 million inhabitants. The official population of Germany around 1890 is just over 49 million. Hollerith's data processing equipment also helps with the census in Austria-Hungary in December 1890. The Hollerith punch card becomes a symbol of computer technology in its early stages. From 1924, the company Hollerith founds gives rise to the International Business Machines Corporation IBM, a world-leading IT company.

## August Kolbus

Once upon a time there was a blacksmith. Barely released from Prussian service, [Christian Heinrich Kolbus](#) set up a village blacksmith shop in Rahden (now the northernmost town in the German state of North Rhine-Westphalia with a population of 15,000) in 1775. 110 years later, his 16-year-old great-grandson August Kolbus emigrated to America. Whether by chance or design, he got work at Company Edwin Crawley (1826–1902) in Newport, Kentucky. Born in Philadelphia, Crawley was infected by the gold rush in California in 1849.

With or without gold nuggets found, he, who had a passion for books, established his company in Kentucky. Crawley invented several time-saving as well as labor-saving devices for bookbinders, for which he was awarded several U.S. patents between 1876 and 1892. One of these was for a book spine rounding and pressing machine, for which the Leipzig manufacturer August Fomm (1828–1898) is regarded as the first inventor in Central Europe.

This did not prevent August Kolbus (1869–1941) from bringing a breath of fresh air to his father's company after his return from the United States in 1898, where he worked his way up to plant foreman. He brought in the experience of his US liaison. August Kolbus developed and built the book rounding and pressing machine called Rupert according to his ideas. With this first bookbinding machine in 1900, the foundation stone of the Rahden machine factory Aug. Kolbus was laid.

For 55 years, „the“ Rupert was manufactured. From 1910, the machine program was expanded with the Blockert book embossing press. After the First World War and the years of inflation, the company's success continued almost abruptly: in 1927, the first KD book cover machine, in 1928 the GD, in 1930 the EM (three-flight) book hanging machine and embossing presses I and II. The number of employees grew to 90 and the export share to 80 percent.

From 1933, the year the National Socialists came to power, the export business more or less came to a standstill. During the Second World War, the company kept its head above water with armaments orders. August Kolbus did not live to see the end, dying in December 1941.

## 1900: Zeppelin airship

LZ-1, similar in shape to a cigar but 128 meters long and several stories in diameter, was the first rigid airship built by Count von Zeppelin (1838–1917), who was not taken seriously at first. On July 2, 1900, he ventured on his maiden flight in a Lake Constance bay near Friedrichshafen. The flight lasted 18 minutes, reached an altitude of 400 meters and a distance of 6.5 kilometers from the starting point. But then, due to a technical defect, LZ-1 is forced to make an emergency landing on Lake Constance with a crew of five.

Despite technical and economic setbacks, development continues. Kolbus and Zeppelin have something in common: they were in America. Zeppelin, who had embarked on a military career in Württemberg and started to study engineering, participated for a few months in the American War of Secession (1861–1865) on the side of the Northern states as an observer. During a military operation of an open-air balloon he is allowed to fly along. This experience with the balloon, which can only be steered in height and depth but depends on the wind direction, triggers the igniting spark for Zeppelin to develop rigid airships with engines, stabilizing fins, stern rudders and guide gondolas. The Count was not the first and last developer of rigid airships; designers in other nations also built something similar.

Yours

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*Read more about Hans Müller and Kurt Stahl in next week's issue.*

*The five-volume „Diary of Bookbinding and Print Finishing“ is available from Muller Martini customer [BoD Book on Demand](#), Norderstedt (Germany), or from any other bookstore (stationary or online).*