

## Chapter 1 | 1912 - 1923

March 30, 1926.

T. HAYAKAWA

PROPELLING PENCIL

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## The Creativity to Found a Company

### Growing a Business with the Sharp Pencil

In 1915, Sharp founder Tokuji Hayakawa invented the innovative twist-type Hayakawa Mechanical Pencil—later dubbed the Sharp Pencil. This pencil represented the culmination of painstaking efforts by Tokuji after he had completed an apprenticeship in metalworking and had launched a business in 1912 in a crowded neighborhood of old Tokyo. The Sharp Pencil served as the origin of our corporate name. With beauty and functionality in tune with the Taisho\*<sup>1</sup> Modern ethos of that period, the pencil was a hit product that led to a flourishing business. Since that time, an attitude of giving sincere thought to the people who use a product—and of harnessing originality and creativity in the pursuit of convenience and quality—has been the foundation of Sharp.

US patent drawings for the Sharp pencil

## 1 Tokuji Hayakawa Finds a Company in Honjo, Tokyo

### The Founder's Childhood and His Apprenticeship at a Decorative Ornament Metalworking Shop

Sharp Corporation came into being on September 15, 1912, when founder Tokuji Hayakawa opened a metalworking business. Let us now retrace the founder's footsteps leading up to this momentous milestone.

Tokuji Hayakawa was born on November 3, 1893, at 42 Hisamatsu-cho, Nihonbashi-ku, Tokyo City (now Chuo-ku, Tokyo). He was the youngest son of father Masakichi and mother Hanako.

Unfortunately, young Tokuji's mother was not only very busy with work; she was also in poor health. As a consequence, just 23 months after his birth, Tokuji was placed in the care of the Deno family, who ran a fertilizer business and who later formally adopted the boy. Tokuji endured a harsh childhood, being underfed and mistreated by his adoptive stepmother. He was forced to quit school shortly after entering second grade, and his life involved little more than pasting labels on matchboxes from morning until deep into the night.

Fortunately, help arrived in the form of Mrs. Inoue, an old, visually impaired woman from his neighborhood who understood the miseries of his foster home. She helped Tokuji to become an apprentice before the age of eight in a

metalworking business that made decorative metal ornaments. His intense gratitude for that act of kindness stayed with him forever and led to his later support for the visually impaired.

The long apprenticeship Tokuji served became an important opportunity for learning and marked the origin of his entrepreneurial spirit. His master, Yoshimatsu Sakata, had the stubborn but steady temperament of a seasoned artisan. Although strict when it came to work, he was a compassionate, warmhearted person. Tokuji not only learned the basics of metalworking techniques here; he also developed a sense of human kindness.



Sharp founder Tokuji Hayakawa (front row, far right) during his apprenticeship, with co-workers

Sakata started a new business manufacturing pencils. However, owing to the immaturity of the technology, the business failed and the majority of the pencils turned out to be rejects. While the other craftsmen in the workshop abandoned their master's venture, Tokuji took it upon himself to sell off all the rejected pencils at a stall in a night market. Harnessing his enthusiasm to sell goods in an appropriate setting, Tokuji honed his skills as a salesman. This experience would prove extremely useful in his later life as a businessperson.

### Inventing the Tokubijo Snap Buckle

By April 1909, Tokuji had served the full term of his training apprenticeship of seven years and seven months. He then completed a year of unpaid service to fulfill his apprenticeship and become a fully fledged decorative metal craftsman.

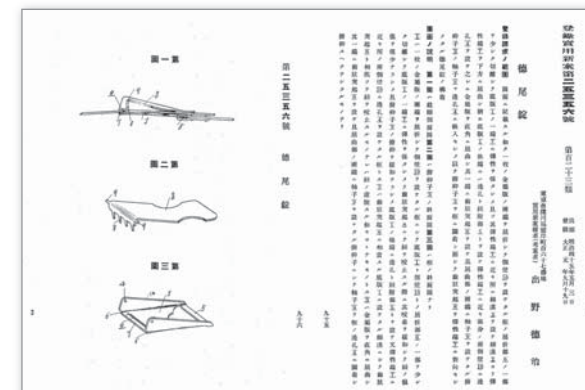
Upon becoming a qualified craftsman, Tokuji purchased two press machines—one regular sized and one small—for shaping and working metal that would be used in fabricating products of his own devising. He also took on the challenge of new jobs that his master had turned down, such as producing fittings for adjustable-flow faucets\*<sup>2</sup>.

One day, as Tokuji was watching a movie at the cinema, he was struck by the looseness of the belts worn by the actors. This observation prompted him to devise a belt buckle that could be tightly fastened without requiring holes in the belt strap.

Incorporating the first character of his own name, he called his buckle the Tokubijo. This belt buckle was awarded Tokuji's first utility model design patent. Through an introduction by an acquaintance, he received an order for a large quantity of these buckles. Gradually, Tokuji began to think seriously about starting his own business.



The Tokubijo buckle, an innovative new design that tightly clasped the belt without the need for fastening holes



Utility Model Design Patent No. 25356 for the Tokubijo buckle (registered September 19, 1912)

Note: Tokuji returned to using the Hayakawa family name after legally separating himself from the Deno family in 1915. Also, the utility model registration uses an incorrect *kanji* character in transcribing his name, Tokuji.

### Founded as a Metalworking Business

On September 15, 1912, before he was 19 years old, Tokuji finally won his long-sought independence. He rented a small house at 30 Matsui-cho 1-chome, Honjo-ku, Tokyo City (now Shin-ohashi, Koto-ku, Tokyo), and set up a metalworking business with two other men—a craftsman and an apprentice. His initial capital was 50 yen, and the workspace was small, covering an area a mere six *tatami* mats in size (11.85 m<sup>2</sup>). Nevertheless, he found ways to raise efficiency, such as by setting up tools and utensils more effectively.

At first, Tokuji focused on producing the Tokubijo buckle, but he also worked diligently on research into new products. One of them was the adjustable-flow faucet. He devised simplified mounting hardware that reduced the number of mounting components from nine to three. Instead of taking 30 minutes to install, as standard faucets did at the time, the new model took just one minute. The faucet earned Tokuji his second utility model design patent, following the one for the Tokubijo buckle.



The company was founded in a dense urban neighborhood of old Tokyo, Matsui-cho, Honjo-ku (now Shin-ohashi, Koto-ku, Tokyo)

Tokuji was not satisfied with one success; his originality and creativity led him to create a series of new products. In 1914, the same year he was married, he moved to a combined house and workplace at 35 Hayashi-cho 2-chome in Honjo-ku (now Tachikawa, Sumida-ku). With seven employees now working for him, he made a daring investment of 200 yen—a large sum in those days—to buy and install a one-horsepower motor\*<sup>3</sup>.

Driven by the motto "Take the initiative and you will win," Tokuji was among the first in his industry to streamline production with machinery. In an era when his rivals were still manufacturing by hand, he developed a reputation as an unabashed enthusiast for machines.

\*<sup>1</sup> The Taisho era is a period in the history of Japan from 1912 to 1926.

\*<sup>2</sup> This faucet featured an attachment on the end that allowed it to be turned in any direction.

\*<sup>3</sup> In his autobiography, Tokuji noted that ordinary craftsmen in 1910 earned about 12 yen per month—less than one fifteenth of the price of the motor.



## 2 The Birth of the Sharp Pencil

### Perfecting the Hayakawa Mechanical Pencil

#### ■ Durable and Easy to Use— the Birth of a Beautiful Writing Instrument

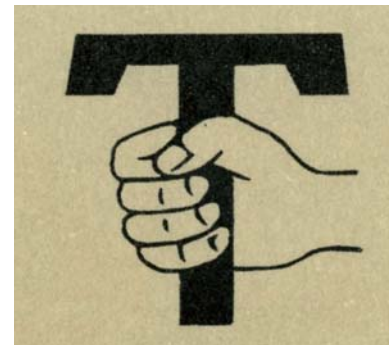
In 1915, a major writing instrument manufacturer placed an order with Tokuji for a large quantity of metal fittings for use in a mechanical pencil—a product that came to be considered the predecessor of the Sharp Pencil. Despite featuring a thick, ungainly celluloid casing, it was fragile—little more than an expensive toy. Although he had been contracted only to fabricate its internal metal fittings, Tokuji believed he could improve the pencil's rudimentary design. He felt if it could be made into a practical product, like a fountain pen, it held promise as a viable business.

Leaving routine jobs to his employees and neglecting to eat and sleep, Tokuji immersed himself in the work of improving the mechanical pencil. Eventually he succeeded in reconfiguring the internal design, using a single piece of brass in place of a combination of many parts. The result was a tough and durable single component. Next, he shaped this brass part into a thin tube that tapered at the tip. By cutting a fine slot on the inside for the pencil lead to pass through, Tokuji perfected a design that employed a spindle to push the pencil lead out smoothly. He also devised a mechanism whereby lead could be reloaded into the pencil with a reverse turn of the barrel. Having fine-tuned the internal parts, Tokuji made the outer shell not from celluloid, but from a beautiful nickel-plated metal.

Not only was the new design durable and easy to use, it was also aesthetically pleasing. Thus was born the

Hayakawa Mechanical Pencil (*Hayakawa-shiki Kuridashi Enpitsu*).

Around this time, Tokuji was reunited with his older brother, Masaharu, whom he had not seen since childhood. Masaharu had a talent for business and accounting and was then running a general store. When Tokuji showed his brother the metal mechanical pencil, he agreed that it held ample promise as a new business. The two men established Hayakawa Brothers Company (*Hayakawa Keitei Shokai*) and worked together to sell the metal mechanical pencils. While continuing to work on other metalworking jobs, they began producing ten gross (approximately 1,440) units a month.



Tokuji trademarked a logo that symbolized "supporting one's own work on one's own resources," depicted using a right hand to grip the letter 'T', the first letter of his name

#### ■ Struggle for Recognition

The two brothers took turns in visiting stationery and office supply wholesalers. Initially, the shops were critical and showed no interest. The new pencil wasn't considered a suitable match for traditional Japanese clothing, and the metal barrel felt cold in winter. Despite many such comments and rejections, the brothers did not give up.

The Hayakawas remained confident in their product and sought to have it carried by Ito-ya in Ginza, considered Japan's leading stationery store at the time. The high-class store was a severe judge of new products and made repeated requests for improvements to the pencil's design. The brothers were to make a total of 36 different samples before finally securing an order from Ito-ya's owner. By willingly accepting their customer's advice and creating a large number of samples, the brothers were able to greatly improve subsequent versions of their mechanical pencils.

Around three months after the Hayakawa brothers first began selling their mechanical pencils, they received some auspicious news. An inquiry arrived from a trading house\* in Yokohama to whom they had sent a sample of the mechanical pencil. The impact of World War I, which had broken out in 1914, had made it difficult to obtain the German-made mechanical pencils that were popular at the



The company produced a wide variety of Sharp Pencils, including models with a calendar, scissors, and a compass

time in many parts of Europe and the United States. The Hayakawa Mechanical Pencil had apparently been singled out as being of a comparable standard to the German models. The Hayakawas immediately devoted their entire factory to producing pencils. Even while temporarily setting aside other jobs and working late into the night, they could hardly keep up with demand.

With exports of Hayakawa Mechanical Pencils to the US and Europe taking off, word of their excellent reputation abroad filtered back to Japan. Orders began to flood in from department stores and office supply stores such as Ito-ya.

### Product Improvements and Expansion of Sales Channels

Even as the Hayakawa Mechanical Pencil gained overwhelming popularity, Tokuji was not satisfied with the status quo and took up the challenge of developing more sophisticated products. In 1916, using a US-made drill, he succeeded in making an extremely small hole in a metal tube, enabling the use of super-fine pencil lead. By devising a new metal barrel with added length and thickness, Tokuji perfected a new mechanical pencil.

When it came to sales, the Hayakawas adopted a dealer system. They signed contracts for consignment sales with Ando Gyokkado of Nagoya for the Chubu region of central Japan, and with the Tokyo office of Nihon Bungu Seizo for the Kanto region around Tokyo.

The brothers considered naming the new product the Sharp Pencil, but instead named it the Ever-Ready Sharp Pencil on the advice of Shotaro Fukui of Fukui Shoten (now Lion Office Products Corporation), their general agent in the Kansai area. For native Japanese speakers, the English words "ready" and "lady" sound the same; since these pencils were popular with western women, Mr. Fukui felt this name would boost the product's image in Japan. His idea was accepted, and the name was registered as a trademark. It later became common to call it the Sharp Pencil—the Hayakawas' original idea—with this name

eventually evolving into a generic term for mechanical pencils in Japan.

After the birth of the Ever-Ready Sharp Pencil, Tokuji devised a series of design improvements and also introduced a variety of popular new products, including affordably priced low-end models, luxury products made of gold and silver, and models incorporating a watch or a lighter.

In 1921, to celebrate the European visit of Japan's Crown Prince (later, the Emperor Showa), the Hayakawas gifted a 14-carat gold Sharp Pencil to the Imperial family. In addition, the original Sharp Pencil was exhibited at the Peace Commemoration Tokyo Exposition held in Ueno Park in 1922, where it received a gold medal to further enhance its reputation for quality and aesthetics.



The Sharp Pencil was awarded a gold medal at the Peace Commemoration Tokyo Exposition



The highly sophisticated design was well received, and acquired 48 new design patents in Japan and abroad

\* A foreign trading house was an import/export business office staffed by resident foreign traders. Representatives and commission agents were stationed in these offices.



### 3 A Thriving Business Meets Great Misfortune

#### Ramping Up Output with a Streamlined Production System

##### ■ Aggressively Introducing High-Performance Machinery

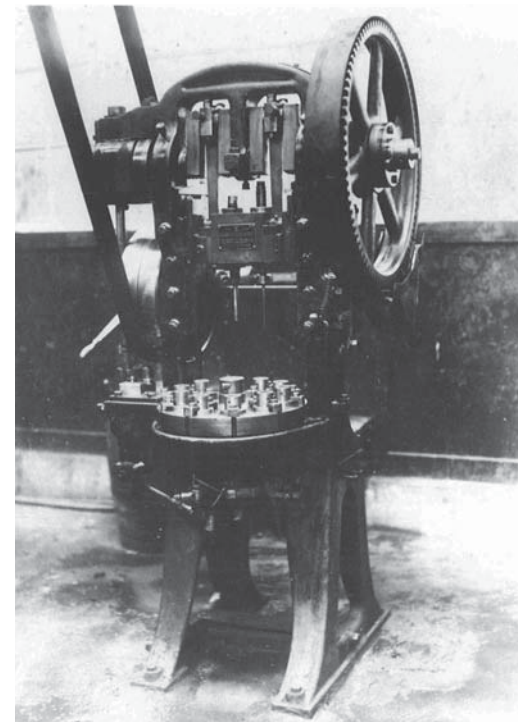
To boost production of Sharp Pencils, Hayakawa Brothers Company developed an assembly-line production system that could consistently and efficiently make high-quality products without the need for skilled craftsmen.

In 1919, the brothers purchased land near their factory in Hayashi-cho and built a new 400 m<sup>2</sup> factory and an 80 m<sup>2</sup> office. As an avid proponent of machines, Tokuji introduced high-performance machinery and invested most of the company's accumulated profits in equipment for the new factory. When necessary, he would buy imported machinery from Switzerland or the UK through agents. An imported press machine, for example, enabled the connected internal parts of the Sharp Pencil to be formed into a sturdy, integrated single piece.

Tokuji also believed in taking responsibility for the reliability of products made by one's own company. In one case, he conducted an exhaustive series of experiments with different plating materials, finally creating a finished product that was durable enough for him to claim that the plating would never flake off. It even came with an industry-first 10-year warranty.

##### ■ Building a New Plant Employing 200 People

The Hayakawas' business flourished under management practices that streamlined production of long-selling products and that nurtured relationships with suppliers and business partners. As a result, business grew dramatically. In



Imported press that helped make production more efficient and improved product quality

1920, the company established a branch factory in Oshiage (now Yahiro, Sumida-ku), and the following year it purchased 830 m<sup>2</sup> of land for the site of its third plant in Kameido (now Kameido, Koto-ku, Tokyo).

In 1923, the factory in Hayashi-cho was extended to 990 m<sup>2</sup>. The plant employed 200 workers and achieved a strong financial performance, with sales of 50,000 yen per month.

The growth of the Sharp Pencil business could be attributed to the Hayakawas' inherent confidence in their products and their ability to persist with sales activities until customers understood the value of the products. They also made constant improvements in product quality and production methods and rolled out finished products that were superior in terms of both practicality and aesthetics.



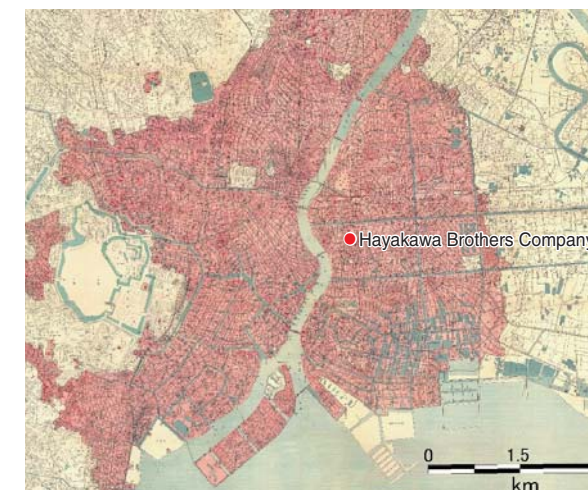
The Sharp Pencil factory adopted efficient assembly-line operations

#### Earthquake Strikes Kanto Region—Family and Factory Are Lost

On September 1, 1923, at 11:58 in the morning, the Kanto region around Tokyo was struck by a magnitude 7.9 earthquake with its epicenter in Sagami Bay. Tokuji had been visiting a friend, but he hurried back to the factory to check on his employees and his family. At this point, fortunately, neither Tokuji's factory nor his home had sustained major damage. His family and employees were unharmed. Soon after, victims of the disaster began arriving one after another at the factory, and it soon became filled with people.

However, the fact that the earthquake struck just as households were preparing the midday meal would result in a catastrophe. Burning charcoal from overturned stoves ignited wooden houses, and flames began rising around town. The situation had suddenly grown alarming. Tokuji judged that the factory would be burned down in the spreading fire, so he distributed rice and money to his employees and sought safety elsewhere. He also passed out food to the victims who had gathered in the factory.

Being surrounded by extensive open gardens, the nearby Iwasaki Villa (now Kiyosumi Garden, Koto-ku) was considered safe. Tokuji therefore entrusted his wife and two children to an employee and sent them ahead, promising to follow them after he had finished cleaning up the factory. But Tokyo soon turned into a sea of fire. Tokuji rushed desperately through the streets—plunging into the river on several occasions—before finally making it to the Iwasaki Villa. In that place of refuge, he learned that his two children had perished in the fire and that his wife had sustained burns over her entire body. She later died. Tokuji had lost his family—his heart and soul, his source of support.



Red indicates the area destroyed by the fire that spread after the Great Kanto Earthquake (Tokyo City Fire Dynamics Map)

Having narrowly escaped death, Tokuji began, along with his employees, to live the life of a refugee. A few days after the earthquake, he moved into a tenement that he had earlier purchased in Kameido and that had survived the fire. The five apartments of this row house now housed about 70 employees from the devastated factory. It served as shelter to keep off the night dew.

When the situation had stabilized, Tokuji set to work protecting the equipment in the burnt-out factory in Hayashi-cho by oiling the machinery to prevent rust.



Aftershocks and fires caused chaos near Ishihara-cho, Honjo-ku, Tokyo (photo courtesy of Asahi Shimbun newspaper)

#### Scrambling to Respond after the Earthquake

Tokuji strove to rebuild his business, but prospects were bleak. As October began, Nihon Bungu Seizo, the company who had been selling Sharp Pencils on consignment in the Kanto area, demanded repayment of deposits made for open contracts and loans totaling 20,000 yen. It was a costly and urgent demand. After consulting with his brother, Tokuji concluded that, to deal with the debt and repay the loans, he would have to dissolve Hayakawa Brothers Company and transfer current business operations to Nihon Bungu Seizo.

In early November, he visited the Osaka headquarters of Nihon Bungu Seizo and met its president—along with Taichi Nakayama, president of parent company Nakayama Taiyodo—and negotiated an amicable settlement. The terms were that: 1) the machinery of Hayakawa Brothers Company would be transferred to Nihon Bungu Seizo, which would also have use of the patents on the Sharp Pencil at no charge; 2) Nihon Bungu Seizo would pay the accounts payable and hire the main technical personnel of Hayakawa Brothers Company to take over the Sharp Pencil business; and 3) Nihon Bungu Seizo would receive Tokuji's services as chief engineer for six months to provide technical guidance.

Tokuji, who had been fighting to get back on his feet after the blow of the earthquake, faced hardships and challenges one after another. Nevertheless, he never allowed himself to become discouraged.