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THE END OF THE AMERICAN VENTURE

The last years of the 1920s marked the decline of the Michelin Tire Company. The U.S. subsidiary was technologically and commercially surpassed by rivals who also saw the opportunity to increase their presence in France and in the rest of Europe. The parent company in Clermont-Ferrand, aware of the global economic situation and its effects on the different markets in which they competed, chose to redirect investments to bolster their European and British production and trading bastions as efforts to sustain the American venture did not yield the expected outcomes. The fate of the Milltown factory was already sealed.

1. Caring for the rearguard in Europe

The First World War was a turning point that affected the commercial scenario in which tire industries operated. In the early years of the 20th century it could be said that several European companies opted for the conquest of new markets—especially the American venture albeit undertaken with unequal ambition, expectations and fortune by Michelin, Continental,[1] Dunlop, Bergougnan and Pirelli. However, after the war there was a strategic withdrawal and a policy of containment, thus strengthening territorial presence in historically propitious enclaves.

This defensive attitude was characterized mainly by two factors. On the one hand, the enormous risk assumed at that time for international expansion operations, constituting financial stakes that showed dubious profitability. On the other hand, there was the strength of foreign brands whose presence in the European continent multiplied as a result of the dynamic that involved the United States sending motorized troops with all kinds of vehicles—motorcycles, cars, vans and trucks—being equipped with technologically advanced tires made by manufacturers such as Goodyear, U.S. Tires or BF Goodrich (figs. **1-2**). The post-war scenario in a Europe of winners and losers, indebted to U.S. intervention, weakened and in reconstruction, was conducive to the establishment of foreign firms as well as strengthening previously established trade delegations. The defeat of Germany and its allies also entailed the temporary deactivation of power held by its tire industry and the businesses of Continental, Excelsior, Phoenix, Peters Union and Liga, among others.

2. The example of Goodrich

In the 1920s, the Akron company began a process of international expansion with a focus on France and Great Britain. Their first steps in the Gallic country had begun with the creation, at the turn of the century, of an import and distribution agency in charge of offering services for imported American cars or passing tourists who used rims and tires having the Anglo-Saxon system of sizes. The brand steadily moved up—in a market dominated by Michelin, the Dunlop and Continental subsidiaries as well as other firms such as Bergougnan and Hutchinson—until the government decided to raise tariffs on foreign products. This made it impossible to continue with imports and precipitated the decision to manufacture their products on French soil.

The Société Française B. F. Goodrich was legally constituted in July 1910, with Arthur H. Lumsden —General Manager of the firm's European business activities—taking on the leadership role with headquarters in Colombes, on the outskirts of Paris. It was in this town that they acquired the modern industrial complex of a business in bankruptcy and proceeded with adapting the facilities under the supervision of technicians sent from Akron. The production of the first "French" Goodrich tires began in December 1911 to supply the local market and neighboring countries, including Spain, Italy, Switzerland and Belgium.[2]

In 1912 the American BF Goodrich parent company merged with their rival Diamond Rubber, who was at that time one of the country's leading manufacturers in the tire sector and was already known in France due to their participation in international automobile competitions such as the Gordon-Bennet Cup.[3] In 1912 Diamond published advertisements in the European press demonstrating their interest in that market, an expansion that was truncated after being sold to BF Goodrich that same year (figs. **3-5**).

Goodrich's French business activity gradually increased during the Great War and in the following years, as shown by the constant growth of their staff: 102 workers employed in 1912; 150 in 1914; 291 in 1916; 266 in 1917; 450 in 1918—a year in which there were already ten branches in important cities—; and 500 in 1919-1920. In January 1922 the factory reported monthly production of 850 pneumatic tires, 450 inner tubes and 100 solid rubber tires. In 1923 French production for the Ford factory in Bordeaux was equipped with tires produced in Colombes.[4]

The policy of marketing and advertising went hand in hand. Initially, it dealt with text advertisements in newspapers and small modules that accompanied the start-up of French production. From 1917 onwards, it increased to full-page illustrated advertisements created by renowned poster designers and illustrators such as Jean d'Ylen (1886 1938), Maurice Neumont (1868-1930), Louis Maîtrejean (1895-1947), Charles Putois, Roch, Basté, Raoul Guinot and Georges Hamel "Geo Ham" (1900-1972). In the Italian market, illustrations were commissioned to the Venetian artist based in Milan, Plinio Codognato (1878-1940) (figs. **6-19**).

The momentum demonstrated by Goodrich in the late twenties declined during the beginning of the following decade due to progressive disinterest and abandoning of commercial efforts by the branch of American management. In 1934, the situation was addressed by passing control to a local and autonomous management team under the name of Goodrich-Colombes.[5]

3. Too many fronts

Other U.S. companies, although with less leverage than BF Goodrich, banked on strengthening their presence in France and conquering other European markets. The Anglo-Saxon connection and the conditions of the British market played a prominent role in this policy. Once the 33.3 % tax on imports went into force, foreign tire companies were unable to continue their activity in Great Britain. In response to the new scenario, several of them decided to launch production with their own factory or through agreements with local manufacturers, based on their pre-existing import and distribution agencies.

This was the path Michelin chose with the start-up of the Stoke-on-Trent factory in 1927. During that year and the following, the local divisions of a variety of foreign firms changed their status from import and distribution agencies to manufacturers: Goodyear Tire & Rubber Co. (Great Britain) Ltd. in 1927; Firestone Tire & Rubber Co. Ltd. with a Brentford factory in 1928; Pirelli Ltd. with a factory in Burton-on-Trent starting in 1929; and Bergougnan Tire Co. Ltd. who began manufacturing, in agreement with a local industry, British Bergougnan tires in 1931. A particular case was that of the India Tire & Rubber Co. (Great Britain) Ltd., which was in principle a subsidiary of India Tire & Rubber from Akron, Ohio. In 1929, after the financial problems of the American parent company, they became an independent company and took over the business and factory in Inchinnan, Scotland.

These production centers were intended to supply the competitive British commercial market but were also meant to serve as launching points for different agencies in European markets. In this way the presence of brands such as Goodyear, Firestone, U.S. Tires or India multiplied. A number of smaller American firms such as Fisk, General, Miller, Kelly-Springfield and Mohawk, among others, were also protagonists—through their respective import agencies—of this commercial deployment to Europe, reaching countries such as Spain, Italy, the Netherlands, Germany, Austria, Sweden and Finland (figs. **20-21**). The challenge of firms from across the Atlantic for a portion of the continental market was especially intense in France[6], a market that was also subject to competition by neighboring rival companies, such as the Belgian company Englebert (figs. **22-29**).

Oscar Englebert-Couderé (1837-1912) started off in the sector by opening, in 1868, an establishment of waterproof products and rubber products on the street Rue des Vennes in Liége. Due to increasing demand he decided to embark on the manufacture of his own products and, in 1877, started his workshop in a facility measuring 2,000 m². Together with Gabriël, one of his brothers, and his son Oscar (1866-1933) he established in 1892 the Société O. Englebert Fils et Cie., which served as the basis for setting up the Englebert factory in Liege, Belgium, in 1898. In 1907 they had more than 500 workers and production centers in Givet (France) and Bussum (Holland), as well as distribution centers in Paris and Brussels. In Great Britain their products were imported and distributed for sale through the company Englebert Tires, Ltd., and in the United States, they were represented by the William Sanford Company in Philadelphia and later in 1912 by the Englebert Tire Co. from New York.[7]

The Givet factory was destroyed during the First World War, so Englebert supplied the French market from their Liege factory. In 1931, during the process of growth and expansion in the French market, they created the Société Française du Pneu Englebert, located at number 2 Rue de Dreux in Paris. In 1936, they acquired a former yarn spinning factory in Clairoix, Oise, transforming it into a production center for inner tubes, operative since August 1938. In the same month of the following year the manufacture of pneumatic tires began.[8] Between 1920 and the mid-30s, Englebert had carried out important commercial and publicity dissemination in France, especially in the press, counting on collaborating artists and illustrators such as René Vincent (1879-1936), Henry Le Monnier (1893-1978), Geo Ham and Plinio Codognato (1878-1940). By the end of the 1930s publicity leaned towards advertising based on dynamic graphic and photographic compositions.

For Michelin, the introduction of foreign firms and the alarming loss of market share in strategic and previously hegemonic territories was a wake-up call. The trend intensified in the 1930s and the beginning of the new decade, when stability was again threatened by the outbreak of the Great Depression. Michelin's response, with the closure of the Milltown plant and redirection of investments to bolster their European and British production and trading bastions, attempted to redress the situation.

4. The latest American models

By the end of 1923 the Michelin Comfort Cord or Comfort Balloon, with cord technology and low pressure, had become the standard model for the American subsidiary. The Tiger Grip tread was redesigned, changing from the original layout to a triple central ridge from which blocks graphically cut into the letter 'C' were laterally emitted.

In February-March 1927 Michelin launched pneumatic tires called Supertread on the American market. They were based on the design of a new tread whose patent was requested on October 30, 1925 and granted reference number 69,322 to Jules Hauvette-Michelin on January 26 of the following year (figs. **30-33**). This model was manufactured exclusively by the Michelin Tire Company, while in Europe the company placed their stakes on the French 'Confort Bibendum' model, introduced in early 1927 and not marketed in the United States. However, a Michelin advertising insert, published January 1930 in the American magazine *Tires*—subtitled in its heading as "The Trade Paper of the Tire Industry"—announced the launch of the new cover model Michelin Truck Tire and the corresponding Super-Duty pneumatic inner tube designed for transport vehicles, trucks and buses; the type of tire shown corresponded to the 'Confort Bibendum.'

Thus, at the end of the decade and until production at the Milltown factory ceased, the American Michelin catalog—in addition to inner tubes and other accessories—offered a range of tires designed for cars, buses and trucks that were ready to fit different standard sizes of straight side rims as well as, in special cases, clincher type models. The list of models and their characteristics (figs. **34-35**) was as follows:

- **Michelin Fabric** (Universal Tread). Classic high-pressure tires with fabric technology, the most economic and simple model.
- **Michelin Cord** (Universal Tread). High-pressure tires based on cord technology. They were offered in "Regular" standard size and "Oversized" extra large format.
- **Michelin Comfort Balloon** (Tiger Grip tread and variant). Low pressure or balloon covers based on cord technology, designed for small-diameter wheels and to replace the usual high pressure model without changing the size and type of rim utilized.
- **Michelin Supertread** (Supertread tread). High and low pressure tires based on cord technology. The automobile tires were offered in two types: the "Standard" model, in which the cover was formed by four layers of cord sheets and the "Heavy Duty" one where six layers were employed. As for the covers to be used by trucks, heavy vehicles and cargo transport, Michelin Heavy Duty Truck Tires employed between eight to ten layers.

5. First-rate and second-rate tires

After the end of World War I, tire manufacturers began a practice that was up until that moment unprecedented. To their standard tire line that already had a recognized brand, they added new brands of inferior quality and lower prices with the intention of offering a wider and more competitive range of products. Firestone broke the ice in 1919 with the creation of Oldfield tires; Goodyear created the Pathfinder brand two years later. In 1926, the initiative became a standard practice and sales of second-line tires constituted an important percentage of profits for companies in the sector.[9]

From 1927 onwards, the situation became complicated and intensified with the appearance of third-rate and fourth-rate sub-brands. Companies were able to offer up to six grades of quality on their branded tires, and a part of the industry also produced custom-made tires—also in varying degrees of quality—for the emerging mail order companies, accessory chains and service stations that were controlled by oil companies. The large and medium-sized companies also utilized the subsidiary firms of each business group to offer cheaper tires: Fisk took advantage of their control over Federal Rubber and Badger Rubber Works; Goodyear utilized Marathon Tire & Rubber—acquired in 1926—, and BF Goodrich, the Brunswick Tire and Diamond Tire company.[10]

A situation was created in which tire companies competed in price and quality against their own interests, generating an atmosphere that was problematic and bewildering to the consumer. It was a state of uncertain balance between given advantages and disadvantages, similar to what we can observe today in the form of certain consumer goods from recognized companies that, in addition to branding their own products, manufacture similar generic store brands for wholesalers and large commercial centers.

A sample of this scenario is exemplified in the comparison of two standard indicators, Goodyear's All Weather Tread (solid black line) tires and Sears Roebuck's All State (solid red line) tires. According to data from January 1927, the top of the line All State tires were 20 % cheaper than Goodyear's equivalent tires. Moreover, this difference markedly increased by 31 % to 35 % in second-line All State tires … taking into account that All State tires were manufactured by Goodyear itself due to an agreement signed in May 1926.[11]

The profusion of brands and qualities resulted in saturating supplies and a confusing scenario where the consumer chose to guide his choices by a quantifiable value: the price. In part, this was the argument put forward by Jules Hauvette-Michelin when criticizing "inadequate" business practices of the sector. He asserted that it was a policy leading to the depreciation of the value of well-established brands and consumer confidence in the quality of their products.

6. Only one quality?

The case of Rutger tires deserves special attention. The Michelin Tire Company in Milltown, driven by strong competition in recent years—and consequently, a steady decline in prices—, chose to produce a second line of tires and their corresponding inner tubes, creating a more economical sub-brand named Rutger.[12] At the end of August 1929 the first advertising insertions appeared, occupying a space within their own advertisements for Michelin tires. In this case the product was briefly presented, together with a list of sizes and prices. In this way, it could be verified that, having the same measures and type of technology used for its construction, the Rutger covers were at least 10 % cheaper, a difference that exceeded 15 % in the case of inner tubes (figs. **41-42**). Rutger tires, after being present a few months in the market, stopped being manufactured towards the first quarter of 1930.

This was Michelin's first recognized opportunity to use a second line of tires with a level of quality that was more economical, a practice their competitors usually exercised without any qualms. The famous motto of the French firm, "One quality only, the best," which historically spearheaded their advertisements in different markets—European, British and American—was challenged here at a time of great complexity (figs. **36-40**). Curiously, one of the publicity modules from American press dated November 1929 stated:

> "NOTE - Michelin makes one quality tire only—the best. No three or four 'qualities' [it does not say anything about two, which is what Michelin offered with the Rutger tires] to confuse the motorist." [13]

In the policy of an independent and powerful multinational company such as Michelin, the possibility of losing their status or their identity by lowering themselves to make second-line tires was inconceivable. Producing second line tires was already common practice in the rest of the industry during that decade. It was even more inconceivable to do so without being able to place their signature on the product. This exceptional situation would repeat itself in a totally new context. After being absent for more than thirty years—the company closed down their Milltown plant and subsequently maintained a reduced sales quota for imported tires—, Michelin returned to the U.S. market through an agreement signed in 1965 with the major retail distributor and mail order catalog Sears Roebuck. In this way, breaking taboos, they began to produce tires in France with the Sears Roebuck All State brand—following the example of other manufacturers such as the Armstrong Rubber Co.—as part of a strategy to position themselves again in American territory and to finally introduce the technology of radial tires which revolutionized the sector.[14]

7. Wholesalers, Retailers … and Michelin

At the end of the 1920s, various agents in the American market through which tire sales were channeled consisted of: the automobile industry (spare tires), the tire factories themselves through direct sales, stores controlled by tire firms, independent stores and businesses, specialized department stores in large retail shops, automotive accessory chain stores, and mail order companies such as Sears Roebuck and Montgomery Ward. At a later date shops and service stations operated by oil companies were also added to the list of distribution channels.

In addition to the percentage of total tire sales for the RE market—Replacement Equipment, in this case including the sale of spare tires—of the different channels, it can be observed that in 1930, 21.3 % of sales were made through automotive accessory chain stores (13.8 %), mail order catalogs (4.5 %) and service stations and stores controlled by oil companies (3 % in 1930 and 10.3 % in 1934). More than one fifth of sales were through new or emerging agents, compared to 75.9 % made through the usual independent stores (68.6 % in 1930) and stores owned or controlled by manufacturers in the tire sector (7.3 %). If we take into account that, beginning in the 1920s, about 98 % of RE sales were channeled through independent businesses—in contrast to 68.6 % in 1930 or 58 % in 1934—we observe that much of the lost quota was absorbed by the automotive accessory chain stores, mail order catalog sales and oil companies.[15]

The tire industry reacted differently to its loss of market share. The big firms sought to make alliances with new agents and to take advantage, in an era of crisis and difficulties, of possible opportunities. Goodyear in 1926 placed their stakes on supplying Sears Roebuck—their Justice tire brand was previously manufactured by Murray Rubber Co., Inland Rubber and Mason Rubber—; U.S. Rubber absorbed their competitors Gillette Rubber and Samson, and with this the contract that united them as suppliers —along with others such as Mansfield and Kenyon—for Montgomery Ward since 1927. Like U.S. Rubber, BF Goodrich manufactured the Atlas brand of tires for the Atlas Supply Corp., a division of Standard Oil Co. and also signed similar agreements with Montgomery Ward.

Firestone did not obtain any substantial contracts, and as such they responded by enhancing their commercial network. In 1928, they implemented about one hundred stores directly controlled by the company, a figure that increased considerably in the following three years.[16] According to Leigh (1936), the policy carried out by the "Big Four" is explained in the following figures of retail stores owned by each company operating in 1930: 350 Firestone establishments (only four in 1926); 164 for Goodyear; 163 for BF Goodrich and 35 for U.S. Rubber. The American subsidiary of Dunlop added 200 stores—although small in capacity—to these quantities, along with 25 for General and the nearly 135 stores operated by other firms.[17] In parallel, small and medium-sized companies such as Michelin reinforced their network of establishments with new contracts and accessions.

It is also worth noting the fierce dispute between the different tire companies constituting the two markets—OE, Original Equipment, and RE, Replacement Equipment—at the end of the 1920s. In 1926, the "Big Four"—United States Rubber, Goodyear, BF Goodrich and Firestone—accounted for 56.6 % of total sales, dominating the OE market with 80 % of sales. However, the rest of medium and small companies, having a percentage of total sales of 43.2 %, surpassed them in the RE market accounting for 52.5 % of these sales. Just four years later, in 1930, the hegemony of industry leaders became apparent, accounting for 75 % of total sales, with 92 % OE and 69.1% RE.[18]

The scenario in which Michelin and the rest of the companies in the sector competed was narrowing. Despite certain reassuring messages and optimistic press releases published in 1927—"The Michelin Tire Co. in Milltown is operating to the fullest of their production capacity for tires and inner tubes"[19]—, they were already a far stretch from 1925, the year in which the company reached the height of their productivity, producing 4,500 pneumatic tires and 15,000 inner tubes daily.[20]

In order to maintain the loyalty of businesses in the best cities and strategic locations, small and medium-sized companies granted them privileges, exclusive franchises, marketing and advertising assistance in local media, discounts and a policy of price protection and control. According to Leigh (1936), this protection of associated establishment networks led to the following: "Thus the sales volume of these manufacturer was maintained but at a sacrifice of profits. No doubt, one of the causes of the unfavorable financial situation of the small tire companies has been the protection given to these dealers during this critical period." [21]

Faced with the prospect and the possibility of gradually losing their presence in the market, in 1927 the Michelin Tire Company in Milltown launched a campaign to attract new businesses to join their network of establishments. But as a result of the increasing competition and escalating price war, they had to make concessions when signing agreements, which were not always in favorable terms for the company. This uncomfortable situation in which the wholesale and retail distributors rather than the manufacturers were calling the shots was new for Michelin. They were historically accustomed to controlling and directing their destiny from their European bulwarks, as well as establishing sales and price policies, in short, to impose their conditions from a position of privilege.

On September 10, 1930, Jules Hauvette-Michelin made a statement to the press, explaining the reasons for ending the business and the definitive closure of the Milltown factory:

> "'We found' Mr. Michelin explained in summarizing the results of the company's survey of the industry, 'that price is now very decidedly the most important factor in closing any sale. The quality seems to have been lost sight of for the time being in the struggle of manufacturers, notwithstanding the declining demand, to increase their volume by reducing prices to the point where there is no profit for the manufacturer and no profit for the retailer either'. The industry generally operated at a loss during the first six months of this year, Mr. Michelin said. While depreciation in the market value of inventories of cotton and rubber was generally given as the reason, he said that actually the major cause was selling at a loss, and that manufacturers were multiplying the number of their brands and grades in an uneconomic effort to bolster up a falling market demand."[22]

> "Michelin said operations 'made it impossible to run our plant with any chance of breaking even. 'Independent tire dealers' he said, 'are dropping out fast, while the fight for volume in tire sales goes on between chain stores and oil stations on one side and the factory-controlled on the other."[23]

8. Technological advances and price wars

The deceleration in the manufacture of pneumatic tires by the American tire industry until reaching the record low in 1932, already in complete economic depression, can be visualized in the following data: 2,400,000 tire covers in the year 1910; 12,000,000 in 1915; 32,400,000 in 1920; 58,780,000 in 1925; 50,970,000 in 1930; and 40,090,000 in 1932.[25] According to a report published in *The Wall Street Journal*, sales figures for tires manufactured in the United States during the first seven months of 1930 were 24 % lower than those presented in the same time period from the previous year, much lower than expected.[25]

A decisive factor in the crisis was the gradual increase in the useful life of the tire, thanks to constant technological advances in their chemical components—accelerators, reinforcers, antioxidants—and materials used in production processes, in the efficiency of machinery as well as the particularly significant contributions of cord technology and its application to low pressure tires. If we look at the statistics, a pneumatic tire had a useful life of less than nine months and 3,000 km in 1910; 10 months and 3,500 km in 1915; 15 months and 5,000 km in 1920; 19 months and 10,000 km in 1925 and nearly 30 months and more than 15,000 km in 1930. Between 1910 and 1930 the estimated tire life had tripled and the mileage increased fivefold.[26]

This longevity was also the result of improved road conditions, the mechanics of vehicles and less frequent punctures, leading to a smaller number of tires consumed annually by each vehicle. The estimated number of pneumatic replacement tires required annually by a single automobile—a new car, just registered the previous year—was 4.88 units in 1910; 2.59 u. in 1920; 2.16 u. in 1925 and 1.44 u. in 1930. Between 1910 and 1930 the need to renew tires after the first year of use had been reduced to almost one quarter.[27]

Technological improvements and strong competition between the numerous companies led to better tires at increasingly cheaper prices becoming more available to the consumer. The graphic of price evolution throughout the first decades of the twentieth century shows a markedly downward curve. To give an example—taking into account the difficulty of comparing products of different technologies and performance—, "a single standard pneumatic tire for a basic passenger model such as the Ford auto cost about $ 35.05 in 1909. Twenty years later, in 1929, an equivalent but clearly improved tire was offered for $ 7.45."[28]

The period between 1927-1928 marked a substantial change in the price policy that had prevailed until then in the American market. The decision of price scales to apply was traditionally taken on by the leadership of the "Big Four," especially Goodyear, BF Goodrich and Firestone, while U.S. Rubber kept a low profile. Each price movement initiated by one of the parties was followed by the rest, in a continuous adjustment marked by rivalry, competition and also by tacit agreements for mandatory follow-up by the rest of the firms in the sector. This fluctuation followed certain rhythms. The changes in price generally occurred twice a year, and were relatively stable in the intermediate periods: in autumn—when retailers began their orders—and in the following spring—when the guarantee for price invariability expired. The price changes were applied to the consumer's price list provided by the manufacturer.[29]

A similar situation was that which Michelin had historically held as the leader in the European market, characterized by fierce battles with different companies, especially the German Continental and the British Dunlop and their different subsidiaries abroad. But if in the Old Continent it was done from their leadership position, which had been strengthened over years of activity, in the United States they had no say in the sector's important decisions. Michelin did not set the pace here.

With the entry of new large distributors—sales by catalog, accessory chain stores and subsequently oil companies—the panorama changed completely, together with decreased consumer purchasing power and the considerable decline in the manufacture and sale of vehicles themselves. In the tire sector, the problems were evident: fluctuating and falling prices, a saturated market with disparities due to excess production capacity and consequent accumulation of stocks, a decrease in profit margins to below limit, and a risky retail protection policy. In the case of Michelin, the low demand and price war that erupted after 1927 had a direct response. This was in the form of aggressive and desperate initiatives deployed by their network of associated merchants to attract customers with discounts and all kinds of payment options, such as sales with differed payments.[30]

It is also symptomatic that the Michelin Tire Company signed an agreement in early March with Standard Stores Inc., an important automobile accessories chain store that also offered sales by catalog, predictably to pay off their stocks in a global and efficient way. The main offices and warehouses of Standard Stores were located in Boston, which was where they supplied various stores for nearly twenty towns in the New England area. Through the agreement, Michelin tires were added to the list of available products, comprising yet another of the major brands for automobile parts and accessories that were sold alongside electrical and radio equipment—Atwater-Kent, Majestic (Grigsby-Grunow Corp.), Sparton (Sparks Withington), Stromberg-Carlson and Philco—which were usually commercialized in this type of business.[31]

This *modus operandi* seems to have become a strategic guideline. The advertisement published March 1930 in the local newspaper *The Free-Lance Star* in Fredericksburg attests to this, explaining the availability of Michelin tires in the chain of gasoline stations and adjoining stores operated by Harvey System in the State of Virginia "The Harvey System now offers you Michelin tires and tubes for the first time at mail order prices (…) for the same price you pay for a Sears-Roebuck tire" (fig. **43**). In the summer of

1932, at the time of their acquisition by the American Oil Company-AMOCO, the Harvey System network had sixteen gas stations that were operating in different cities and towns in the state of Virginia.[32]

At the beginning of April 1930, two weeks before the official announcement of the factory's closure, certain distributors opted to liquidate their Michelin tires with "2 x1" sales offers—two pneumatic tires for the price of one—and the possibility, by adding a penny more, of buying two inner tubes for the price of one (figs. **44-47**).

9. Survivors, wounded and missing in combat

The deep and persistent perturbation that the tire industry sector suffered did not equally affect all companies. The leaders in the market had huge structural and financial capacity and managed to overcome the situation and severe losses that occurred between 1929 and 1934. The rest of the medium and small companies presented a heterogeneous panorama in terms of policies, capital and turnover. They faced the crisis depending on numerous factors and suffered their consequences to a greater or lesser extent. Some succeeded in taking advantage of an adeptly sized structure that gave them agility and a certain rapid capacity to adapt to continuous changes; others were weakened from their battles and absorbed by their competitors, and finally a large number of firms simply disappeared.

The large companies, of course, took advantage of the scenario to reinforce their position, investing in the acquisition of several of the most appealing historical rivals who were agonizing and in the hands of creditors or investment groups. As such, a process of unusual concentration was generated.[33] BF Goodrich bought Miller Rubber in 1930 and Hood Rubber in 1939; United States Rubber acquired Gillette Rubber in 1930, Samson Tire & Rubber (created in 1918) in 1931 and a weakened Fisk Rubber in 1940; Goodyear bought Kelly-Springfield in 1935;[34] and General Tire bought Yale Tire & Rubber in 1931 and, later, India Tire & Rubber.

If we analyze the evolution of the number of companies in the tire industry sector along a timeline between 1919 and 1933, the figures are enlightening and conclusive: 190 companies (200 factories) in 1919; 160 companies (178 factories) in 1921; 97 companies (126 factories) in 1925; 62 companies (91 factories) in 1929; and 35 companies (44 factories) in 1933.[35]

The history of the tire industry has always run parallel to that of the automotive industry, and it could not be otherwise. The phenomenon of selection, survival and concentration also yields conclusive data in this sector: The number of companies engaged in the actual production of passenger automobiles between 1903 and 1926 was 181; in 1926, of these only 44 firms were still active in the business; in 1949 the figure was reduced to nine.[36]

The case of Michelin's American subsidiary was unique because, although castigated in these market movements and policies of adjustment and concentration, they did not go bankrupt as did several of their competitors. This was avoided as they had the endorsement and backing of the French parent company, which simply ended activities in a scenario that was not conducive to their interests.

A series of reviews published between 1928 and 1929 in *Bibendum*, Michelin's French corporate magazine, revolved around the instability of the business in American lands. They painted a gloomy panorama, detailing the losses suffered by a representative list of large and medium-sized companies in the sector:

> ***"Goodyear's benefits taking a fall:*** U.S. financial agencies point out that Goodyear's profits during the first quarter of 1928 are significantly lower than in the first quarter of 1927. This decline reaches 30 %. Predictions for the second quarter are appalling, considering that first-quarter dividends have dropped to $3 or $3.50 a share, down from $4.91 one year ago."[37]
> ***"BF Goodrich Co.*** Announces that this year they will not be able to distribute dividends higher than $1.50 per share, whereas in the previous year the figure was $15.44.
> ***Fisk.*** They announce a net loss of $8,791,251 (more than 220 million francs).
> ***U. S.*** They have suffered even greater losses, $10,780,000 (270 million francs).
> ***Miller.*** They have a deficit of $3,431,901.
> ***Kelly Springfield.*** They have a deficit of $2,490,512.
> ***Ajax.*** They have a deficit of $2,063,956.
> ***Hood.*** They have a deficit of $1,478,104."[38]

It is curious that of the total published numbers for the magazine, the Michelin Tire Company in Milltown is scarcely mentioned. And when referred to, it is done in an oblique way and addressing merely anecdotal matters. This is clearly a reflection of their precarious situation.

10. Strategic investments

The period between 1926-1930 was a time of constant investment by the Michelin group in France and in different strategic bastions. It was needed to cope with those years of intense competition, recession and uncertainty, which led to the profound crises of the thirties.

Among these investments stands out the beginning of construction for the first Michelin factory in Great Britain at the end of 1926, in the town of Stoke-on-Trent, North Staffordshire; a year later activity began. The decision to establish a production unit on British territory—a market that until then was supplied with Michelin tires by Italy and France—was taken following the imposition of customs fees established May 1926 by the U.K. Administration. The 33.3 % tax not only applied to automobile imports but also to their components, including tires. This situation, similar to the one that led to the establishment of the American subsidiary in Milltown, not only made the product more expensive, but forced non-British Michelin competitors—as was the case with Goodyear or Pirelli—to consider setting up their own factories. In light of this new scenario, Michelin could not be left behind.[39]

In Italy, the Trento factory was also set up in 1926 and was dedicated to producing spinning mills to supply the historic factory in Turin with the necessary textile ropes for the production of cord technology tires. To obtain a greater presence in the historically difficult German market, Michelin acquired the former premises of the local Ludwig Ganz firm in Mainz in March 1926, although it remains unknown if it was put into operation.[40] In 1930, the Karlsrühe factory was established, reinforcing Michelin's position in the territory, dominated by Continental and in conflict with the Belgian Englebert who, a year earlier, had installed a production plant in the city of Aachen.[41] Moreover, the French parent company also assumed major investments in their commitment to quadruple, as of 1924, the volume of the original Cataroux facilities in Clermont-Ferrand.

Between 1923 and 1924, a rubber cultivation project was started in the Far East with the intention of alleviating or putting an end to the iron control exercised by British financial markets. Michelin set up a commercial office in Singapore for the direct purchase of raw material in situ and, after visiting different plantations, created an experimental operation in Indochina, known as Benco. Between 1925 and

1930 Michelin launched the Dau-Tiêng concessions—about 9,000 ha—and Phu-Riêng in Cochinchina —in the canton of Thuân-Loi, present-day Vietnam, with 5,500 ha. They yielded very distant results from what was expected and led to the forced annulment of plans for exploiting a new concession (70,000 ha) granted to Michelin in Indochina. Another unsuccessful attempt involved managing the plantation (150,000 ha) that the French firm had operated in the Amazon since 1928.[42] Investments to this end were planned to generate long-term results.[43]

Given the efforts to increase control of raw material and to strengthen European strategic enclaves, the plans for continued investment in Milltown to reverse a truly complicated situation were not a top priority. Subsequently they were relegated and finally canceled with the escalation of the Great Depression and the financial weakening of the Michelin group.

As François Michelin (1926), the grandson of the founder Édouard Michelin and head of the company from 1959 until 1999, explained in an interview published in 1982:

> "We were on the brink of bankruptcy in 1930. For the simple reason that our products were not the best. (…) If your product is the one that offers greater performance and is the cheapest, you can cope with all the problems. This means that in order to produce the best tires, all the company's efforts must concentrate on that single objective."[44]

11. Chronicle of a closure foretold

The succession of facts marking the agenda of dismantling Michelin's American subsidiary can be followed in detail via successive chronicles published in the local press of the time. Numerous rumors, already from mid-1929, pointed to the supposed offers for purchasing the Milltown factory realized by different large corporations. On the one hand the name of Henry Ford was mentioned, perhaps for the need to open new lines of automobile production or to definitively consolidate the idea of manufacturing their own tires, which up until then had been supplied by different companies having strategic EO contracts, especially Firestone.[45] On the other hand, the possibility was raised that one of the four large market leaders, possibly BF Goodrich, would add a new factory to their list of production centers. Finally, Sears Roebuck & Co., an automotive accessory retailer that embarked on an ambitious expansion process was added to the list of potential buyers. All the speculations were emphatically denied by Michelin.[46]

The truth is that, in early October 1929, the American press collected various statements by Jules Hauvette-Michelin outlining the short and medium term plans for the factory and their workers. As for the latter, the measures adopted aimed at rationalizing production, being limited to a single daily shift of eight hours as well as the need to reduce the workforce, eliminating 200 workers. These layoffs were planned to be made among employees having lesser seniority or under temporary contract although, according to rumors—conveniently denied—the lists included several of the most veteran workers, some of whom had been working since the times of the International Automobile & Vehicle Tire Co.[47]

The production department and their engineers, on the other hand, were maturing the plans for a profound transformation in production processes and the renovation of obsolete machinery. In this sense, for example, it was proposed to take action with a special focus on the manufacturing process of large tires for transport vehicles and trucks. The overlapping of numerous layers of nappa fabric cords that made up the frame or shell of the pneumatic covers—between eight and ten and even more in some cases—was until then performed manually. The intention was to optimize the work and quality of results employing a mechanized and automatic mode, thus eliminating the necessity for labor and associated costs. It was also planned to apply these advances in other phases of production, such as vulcanization and curing. The new machinery and utilization of a novel generation of vulcanizing chemical agents could save up to 25 % of the time previously invested in the process. It was also speculated to immediately purchase a new four-cylinder calender that was capable of adequately constructing the layers of parallel cords necessary for the construction of the most modern tires.[48]

This machinery and the different lines of production also demanded the remodeling of existing facilities and the probable need to expand them into one or more production warehouses. The entire operation would be led by the management and technical team headed by Jules Hauvette-Michelin, who was joined by two supervisors to study the implementation of the plans. One was sent directly to America from French headquarters, H. M. Laloux, chief engineer of Michelin's department of engineering in Europe and also in charge of the Stoke-on-Trent factory in England and Turin in Italy. The second was a renowned manager from Akron, an expert in the organization of tire industry factories and specialized in the perfection of methods for manufacturing and increased labor efficiency without affecting product quality.[49]

In any case, these were the arguments expressed and dominating the journalistic chronicles. It is possible and probably more likely that these consultants and Michelin staff were planning and studying not the viability of the project, but rather how to effectively manage a process of closure, finalizing production and shutting down facilities. What was published through the media was a message of reassurance and hope for employees and the community of Milltown.

12. The cessation of activity

On the morning of April 25, 1930, Jules Hauvette-Michelin publicly announced the cessation of production and closure of the factory at the end of the month, although the possibility was left open of resuming activities should the conditions prevailing in the sector adequately improve.[50] The decision did not surprise anyone. It was the feared outcome after months of uncertainty and a gradual but progressive decline in activity. The possibility of restarting, however, was difficult to believe, considering that in the days following the communiqué, the two factory calenders were dismantled—and destined to their production centers in France and Germany—as well as selling part of the company vehicles, in addition to a portion of French staff returning to their native country.[51]

In the previous months, Michelin had maintained a workforce of 700, a figure that decreased to 300 workers at the time of closure (fig. **52**). The case of Michelin and their staff—conscious of the general crisis context—was also the case of many businesses in this and other sectors, beset by the stock market crash and financial debacle that began in October 1929 and their consequences for the American and global economy.

On July 17, 1930, management of the Michelin Tire Company in Milltown, responding to the pressure exerted by the unemployed, agreed to negotiate severance payments amounting to a total of about $700,000.[52] The beneficiaries were the last 700 workers under the old contract who, during their professional practice, had received a cumulative incentive each year, averaging $1,000 per person. According to the agreement, the amount would be effective after the employee's leaving the company, and the company should pay it within a maximum period of three years. In this new scenario, the Vice President of the company Jules Hauvette-Michelin proposed the conditions of payment through an explanatory letter sent to each member of the affected group: it could go into effect after requesting it or, on the contrary, it could be postponed three years; in return, the company offered an annual remuneration of 5 % interest during that period.

After four and a half months of inactivity in Milltown, the gloomy omens became a reality. On September 10, as reported by the Associated Press and United Press agencies and published in numerous local, state and national newspapers, Jules Hauvette-Michelin certified the determination to permanently close the plant and put all facilities and grounds of the industrial complex up for sale (figs. **50-51**).[53]

Michelin also had to undertake dismantling their commercial network, already decimated by the demands of a market under great pressure. An early case that foreshadowed the situation was the dissolution in 1927 of a strategic delegation, that of San Francisco. It was in charge of the state of California as well as the entire East Coast, and its responsibilities were assumed by different independent distributors. Thus, A.M. Scott & Co. from San Francisco was named official distributor of Michelin for the Central Zone,[54] while the business of the Southwestern Zone of California was under the management of J.R. Reilly and his company, Reilly Rubber in Los Angeles.[55]

Closing procedures also involved the liquidation of tire and inner tube stocks and other products accumulated in the warehouses of territorial headquarters, as well as the termination of contractual linkages with wholesalers and retailers. For example, the Lowenstein Brothers Company from San Antonio, Texas, purchased the business and stocks of the local Michelin delegation in April-May 1930—as was also done with delegations in Oklahoma and Kansas City—and began a sales campaign aimed at liquidating stocks (figs. **44-46**).[56]

For the people of Milltown, they saw their worst fears consumed. The closing of Michelin and the cessation of their activities not only affected the workers and their families. In a direct or indirect way, a large part of the population and the social and economic life of the town depended on the company's robustness. This outcome had been preceded by a number of warnings and small details, such as Michelin's ceasing the sponsorship of the village's basketball team after years of supporting various sports activities and whose teams were largely made up of factory employees.[57] Or the closure of the complex's restaurant-cafeteria in April 1930, and the debate on the future of the Community House. This was the communal civic center—a venue for social events and cultural activities such as concerts or theater performances—owned by Michelin.[58]

The commotion of those difficult moments turned into feelings of frustration that were channeled into certain attitudes and actions. As has systematically occurred throughout history in successive political conquests and changes, the banners and symbols of the vanquished are removed if not destroyed, and their representative function may also instigate the coming together of reprisals. According to testimonies of the time, the statues of Bibendum that adorned the factory and adjacent housing complex were stoned until their destruction.[59] The faithful servant, spokesman and ambassador, incarnation and symbolic representation of Michelin, became the target of rage for an entire community.

13. The Michelin Realty Company

Despite the factory's closure, the presence of Michelin in the town of Milltown remained for some time. It was necessary to manage the sale of the industrial complex and related buildings, as well as to decide on the fate of the houses—about 300—that had been built since 1919 to lodge part of the employees and their families who lived as tenants. For this purpose the Michelin Realty Corp., which had 40 employees, was created in 1930. Heading it was David S. Servis (1893-1945) former Treasurer of the Michelin Tire Co. and assuming the role of Vice President,[60] and Walter Richard Smith (1891-1955) as Executive Secretary who, since joining Michelin in 1909, acquired increasing responsibilities until becoming one of their managers.[61]

The houses were gradually put up for sale, offering preferential conditions to the tenants who occupied them; the last of which was acquired in 1946. For the adjudication of the entire industrial complex the reputed New York company led by Josep P. Day was first employed, being specialists in sales and auctions and with recognized dominion of employing all possible advertising channels. Examples of this policy are the advertisements that were published during 1930 in newspapers of great diffusion such as *The New York Times* or the *Brooklyn Daily Eagle*.[62] In 1933 a new advertisement appeared in the magazine *Fortune*, this time signed by the business agency Payson McL. Merrill Co., Inc. who was then in charge of identifying possible interested parties and closing on the agreements.

Another agency initiative was the placement of a billboard on one of the access roads to the town of Milltown (fig. **53**). Accompanying an illustration that depicted the façade of the factory was, in large capital letters, the following message:

> "Michelin Tire Co. plant for sale or rent. In whole or in part. 500,000 ft² [46.452 m²] floor space. Modern buildings. Equipment in excellent condition. Available for immediate occupancy. Apply at plant 1 mile or Payson McL. Merrill Co. Inc. 1 East. 57th St. New York City, Tel. Plaza·3·1000." [63]

In spite of their efforts, the industrial complex found no buyer and remained for several years unocuppied and abandoned until, in 1937, the Payson McL. Merrill Co., Inc., representing Michelin Realty Corp., leased an entire production facility—4,400 m² of surface area—to Algro Knitting Mills, Inc. It was a company dedicated to the manufacture and dyeing of rayon fabrics that had been previously located in the western part of New York City. From that moment on, negotiations began with three different potential tenants, interested in accessing a part of the 475,000 ft² [more than 44,000 m²] of constructed land area, distributed in several buildings arranged on a plot of approximately twenty-one acres [eight hectares].[64] A year later the company Metalfield, Inc., a manufacturer of metal products, leased two of the buildings on Washington Avenue: the first a three-story building and its annex comprising two stories—making a total of 82,000 ft² [almost 8,000 m²]—acquired in its time by Michelin from the neighboring Russell Playing Card Company.[65]

Thus, from 1937 onwards a variety of companies occupied the premises of the former factory of the Michelin Tire Company in Milltown. In the mid-1980s, the United States Land Resources, a firm founded in 1968 and specializing in the management of building rentals, definitively acquired through its owner, Lawrence S. Berger, all facilities and the land.[66]

The Michelin Realty Corporation changed its name to the Michelin Corporation in 1950, and moved to new offices on the 33rd floor of number 29 Broadway in New York.[67] In March of that same year they added a four-story building—with 8,500 ft^2 [almost 800 m^2]—occupying numbers 341 to 343 East 62nd Street. The facility was ready for accommodating administrative units, as well as a part that was to be utilized as a warehouse for the storage and distribution of their novel truck tires.[68]

The development of Michelin radial tire technology allowed for the reintroduction of their products in the U.S. market, a trend that would consolidate and start the growth of the Michelin Tire Corporation business. It was in 1967 when Michelin's second American venture took place, after years of inactivity since the closing of the Michelin Tire Company in Milltown. The advertising campaign for the debut featured Bibendum, the absolute protagonist in a series of advertisements introducing him to new generations of consumers as ambassador and spokesperson for the company (figs. **54-56**). The German Arthur J. Lowenstein—who had been the Director of Citroën in Cologne and Amsterdam and emigrated to the United States after the outbreak of the Great War in Europe—had been the President of the American subsidiary since 1941, and continued in that position during the company's new stage and until his death, in 1962.[69] The refounded company also included in their management team certain persons who had been historically related to the firm. An example is Walter Richard Smith, who began working with the Michelin Tire Co. from Milltown in 1909 and shortly before his death in 1955, he had served as Treasurer of the Michelin Corp.[70]

14. The dissolution of the Michelin Tire Company in Milltown

The Michelin Tire Company in Milltown was already in critical condition in 1928. In that year shareholdings were distributed as follows: of the 20,000 shares issued, more than 14,000 were in the hands of various members of the Michelin family and the rest was distributed among nearly 142 American small shareholders. An internal letter dated May 15 of that year reported that the American Michelin had accumulated a debt of $ 7,700,000, whose interest amounted to $ 427,000, which constituted about 3.2 % of cash flow.[71]

According to a 1928 article in the French publication *Agence Économique et Financière*, Michelin's businesses in France and the Italian subsidiary were robust, while in England—thanks to the full production capacity of the Stoke-on-Trent factory—the numbers were excellent. But the Michelin Tire Company in Milltown yielded poor results, in part justified by the fall in rubber prices as well as fierce competition.[72] In order to deal with the situation, the parent company urged their shareholders to repurchase shares held by Americans so as to proceed, during 1929, with an in-depth reorganization of the business in American territory. The repercussions of the situation were also covered in a review for the American newspaper *The Wall Street Journal*.[73]

On December 31, 1928, at the end of Michelin et Cie.'s fiscal year, the portion of profits to be distributed among management, personnel, shareholders, holders of equity investments and reserve funds amounted to a total of 118,697,300 FF. The 1929 figures yielded a disturbing balance of 93,732,756 FF, showing a clear decline in dividends. The main reason for this difference was the need to repay 17 million francs of interest generated by the U.S. subsidiary's debt.[74] The situation did not improve at the close of fiscal year 1930, and the portion of distributable profits fell to 40,865,492 FF. Profits corresponding to the year 1932 maintained a downward trend reaching the figure of 31,905,340 FF.[75]

The burden of maintaining the factory and commercial network during the last years and the latent memory of the unfeasible American adventure that affected the company's image of solvency was eased after the decision made at a special meeting of Michelin's shareholders, held in France on May 22, 1932.[76] As a matter of fact, a review published a few days earlier in the *Journal des Finances* reflected the stock market depreciation of the Michelin group which, although they had a gross dividend of 50 FF, had gone from a value of 945 FF to 908 FF. This indicated that the net profit at that time was about 30 million francs, compared to 40 million in 1930. The agenda of the assembly listed a number of exceptional measures: ratification of the sale of real estate, creation of two subsidiaries—one in Norway and another in Argentina—and the proposal for the definitive cessation and dissolution of the Michelin Tire Company in Milltown after 25 years of operation, which was finally approved.[77]

Much had happened since the times when Édouard Michelin made statements to the French press after his first visit to the United States in February and March 1907. It was then when he closed agreements in person for the acquisition of land and facilities pertaining to the International Automobile & Vehicle Tire Co. Milltown and for the legal constitution of the Michelin Tire Co. with the aim of establishing their U.S. subsidiary.

> "We have been exceedingly well received in the United States; indeed the spirit of the Americans is such that every stranger setting foot in the country is almost immediately considered a citizen. Already we are classed over there as American producers, and no one looks upon us as invaders. Automobilists are charmed that we have come to give them good tires for their bad roads and in a short time you will see that 'Michelin boit l'Amérique' [in French as the original version]."[78]

This last sentence made reference to Michelin's advertising slogan "Le pneu Michelin boit l'obstacle" that metaphorically embodied Bibendum raising a glass full of nails and crystals—drinking up the obstacles of the highway—in French posters for the tire brand. It appears that in the end, after much effort and struggle, the final toast brought on obstacles that were too much for Bibendum to overcome.

Notes

1. In 1907, the year in which Michelin bought the Milltown facilities, their European rival Continental began an investment policy to reinforce their presence in France, Italy and Australia (Erker, p. 21). The American subsidiary, the Continental Caoutchouc Company—created in 1903 and operating hitherto as an import agent—marketed their own "American" tires in 1908. These were manufactured under commission by the Revere Rubber Co. in Boston, until Continental's American subsidiary ceased production and was finally absorbed in 1911 by the powerful United States Tire Co. The Clermont-Ferrand based Bergougnan was the company that more insistently placed their stakes on following the footsteps of Michelin. In 1920, they began production with their own factory in Trenton, New Jersey and commercialized their brand of tires until 1924, the year the business closed down. As for Dunlop, they established their own factory in 1920 after several stages of uneven presence in the U.S. market through licensing the manufacturing and commercialization of their brand.
2. "American tires now factors in Europe," *Motor Age*, May 23, 1912, p. 34.
3. The 1905 Gordon-Bennet Cup edition took place in Auvergne near Clermont-Ferrand and was seen as a polarized conflict between Michelin and Continental—who dominated the scene at that time—, each one equipping six vehicles representing France and Germany respectively. Dunlop and Palmer were the official brands representing Great Britain and Diamond represented American, with each equipping three vehicles. The results, which were to be expected given European supremacy and with Michelin capturing the first four positions, were not favorable for Akron's brand, with their first classifying vehicle in position number twelve of eighteen enrolled in the race.
4. Dumond (1993), p. 596; Blackford and Kerr (1997), p. 100.
5. Erker (2005), p. 519.
6. "Export possibilities cheer tire makers," *Automotive Industries*, October 7, 1926, p. 632.
7. According to articles and news in *The India Rubber World*: "Growth of a Belgian factory," April 1, 1907, p. 211; "Tires and tire makers," September 1, 1908, p. 412; "British company notes," March 1, 1908, p. 182.
8. According to Rémi (2009), p. 18. In addition, see: "Filature de viscose La Soie de Compiègne; puis usine de pneumatiques Englebert, puis Uniroyal, actuellement Continental," Conseil régional de Picardie-Service de l'Inventaire du Patrimoine Culturel. File written by Dufournier Benoît and Fournier Bertrand, 2002. Access (2015) www.inventaire.picardie.fr
9. In 1926 sales of second-line brands through establishments associated with the respective tire companies accounted for 45.6% of Goodyear's total sales; 42.3 % for U.S. Rubber; 28.1% for Firestone. Gettell (1940), p. 227.
10. French (1986) in the article *Business History Review*, p 40.
11. According to Leigh (1936), p. 258. On the contract binding Goodyear as a supplier to Sears Roebuck, see French (1991), p. 54-55.
12. As mentioned in the news article "Michelin factory changes likely to bring about better production," *The Milltown Review*, October 3, 1929.
13. Vertical advertising module for Fayette Motor Accessoires Co., Michelin distributor, published in *The Daily News Standard* (Uniontown, Pennsylvania), November 8, 1929.
14. Jemain (1982), pp. 213-214.
15. According to the data in Table XV "The distribution of renewal and spare automobile pneumatic tire sales to consumers by various channels, 1922-1934 inclusive" in Leigh (1936).
16. Gettell (1940), p. 304.
17. According to the data in Table XVII "Number of retail stores operated by the various tire companies, 1926, 1934" in Leigh (1936), p. 142. In any case, these figures were reviewed and different

sources consulted vary or agree to a greater or lesser extent. For example, French (1986) in Table V "Number of retail stores by firm, 1924-1935" lists the following data in 1930: Firestone, 430; BF Goodrich, 150; Goodyear, 134; U.S. Rubber, no data (24 in 1929); Fisk, 121; General, 22; Dunlop, 20 (510 in 1934).

18. According to the data in Table XX "Large vs. small companies. Participation in the total tire market 1921-1933 for selected years only" in Leigh (1936), p. 197.

19. "New Jersey," *The India Rubber World*, August 1, 1927, p. 279.

20. Jouas (2005), p. 71.

21. Leigh (1936), p. 195.

22. "Michelin will end tire making here," *The New York Times*, September 11, 1930.

23. "Michelin tire plant forced to close," *Fichburg Sentinel*, September 10, 1930, p. 9.

24. As shown in Table XVI "Automobile tire production in the United States, 1910-1933," Carlsmith (1934), p. 100.

25. "Sales of Tires off 24 % from 1929," *The Wall Street Journal*, September 27, 1930.

26. According to the cross-data of Table XXI "Tire durability, 1910-1938," Gettell (1940), p. 218; and Table III "Average mileage and weight of the cashing for selected years, 1905, 1937," Gaffey (1940), p. 39.

27. According to the data in Table XXVI "Number of tires required annually, 1910-1938," Gettell (1940), p. 240.

28. Epstein, p. 44 and Table C-1, "Thirty-three years of tire prices in relation to World War II," p. 45.

29. Gettell (1940), p. 309.

30. In the United States sales made as credit or installments constituted one of the economic pillars for the automobile industry. In 1929 cash payments accounted for less than 40 % of total sales. Such measures—applied to both new and used cars—permitted more modest classes to access vehicles and contributed greatly to the diffusion of automobiles. By contrast, in France sales by credit barely reached 15 % of the total. As explained in the French trade unionist newspaper *Le Cri du People*, March 8, 1930, citing Deraine Georges's article, "Développons la vente à crédit," *Journée Industrielle*, December, 1929.

31. "Michelin tires sold by Standard Stores," *Daily Boston Globe*, March 16, 1930.

32. Harvey System advertisements in *The Free-Lance Star* newspaper, March 24, 1930 and acquisition by AMOCO, August 11, 1932.

33. These phenomena of entrepreneurial concentration also happened in a variety of leading companies in the international scene. In Britain, for example, India Tire & Rubber Co. (Great Britain) Ltd. passed, in 1933, to be jointly controlled by Dunlop who finally acquired it three years later. The British division of BF Goodrich was constituted in 1924 as a subsidiary of the American parent company, that maintained financial control until 1934; that year it was renamed British Tire & Rubber Co. Ltd. The new company also controlled India Rubber Gutta Percha & Telegraph Works Ltd—and with it Palmer Tire Ltd—to form a corporation that included companies such as the historic Stepney Tire & Rubber Co. Ltd. (as explained in the dossier listed in the biography *The monopolies and restrictive practices commission report on the supply and export of pneumatic tyres).* The leader of the sector in Germany, a revitalized Continental, took advantage of the end of a decade of uncertainty that would lead to the American and global stock market crash, and incorporated several rival companies such as Excelsior in 1928 and Peters-Union, Pollack-Titan AG and Liga -Gummiwerke in 1929 (Erker, p. 31).

34. French in the article *Business History Review*, p. 34.

35. According to data in Table III "Entries and Exits in the Tire Industry, 1914-1937," French (1986), p. 33; and the chapter "Concentration and competition in the 1920s," French (1991), pp. 45-46.

Other authors dealt with different sources and offer distinct figures, although being similar in terms of growth: according to Klepper and Simons (2000) the maximum number of producers in the sector of the tire industry was reached in 1922 with 274 firms, falling to 49 active companies in 1936. Klepper and Simons, p. 732.

36. Epstein (1949), p. 67.

37. "Les bénefices de Goodyear en baisse"," *Bibendum*, August 1928, p. 9. In this sense, a news item in *Time* that same year explained the Goodyear case whose net benefit of $6,364,005 for the period during January-June 1927 had declined in 1928, for the same January-June period, to $3,074,200. "Tires," *Time*, August 27, 1928.

38. "L'année 1928 est déficitaire pour les concurrents américains," *Bibendum*, April, 1929, pp. 11-12. In this sense, the news published in *Time* detailed the problems of several companies for the period of January-June 1928, comparing it with the same period from the previous year: for BF Goodrich, profits of 45,813,501 were transformed into a deficit of $ 1,574. 889; Fisk Rubber Co. accrued a deficit of $ 4,983,134. "Tires," *Time*, August 27, 1928.

39. This tax policy—known by the nickname "McKenna Tax" for the politician Reginald McKenna who initiated it—, responded to a historical demand of the local tire sector, invaded by foreign brands due to the lack of protectionist zeal that existed in other countries. In this regard, there are "Tire import duty," May 1, 1927, and "British notes," August 1, 1927, both published in *The India Rubber World*.

40. Dumond (1993), p. 650.

41. Erker (2005), p. 33.

42. Jemain (1982), pp. 112-113.

43. I am grateful for the information provided by Éric Panthou, former librarian responsible for the Michelin Collection at the Bibliothèque du Patrimoine de Clermont Communaté in Clermont-Ferrand and a historian who, as a specialist in the subject, has published the book listed in the bibliography *Les plantations Michelin au Viêt Nam. Une historie sociale: 1925-1940* dedicated to explaining the history of Michelin plantations in the Orient.

44. Fredet (1982), p. 205.

45. A news item from 1915 already stated the intention of Henry Ford to begin the manufacture of their own tires to equip the production of cars. "Ford to make tires and operate steamship line," *Horseless Age*, July 7, 1915. The rumor circulating in 1929 about Ford's interest in the Michelin facility had some grounding. It was precisely in this timeframe, between 1927 and 1929, that Henry Ford began an ambitious project to control all raw materials used in the manufacture of their vehicles. This was the case of rubber utilized in tires and other components, controlled from London and other strategic centers such as Paris and Amsterdam, thanks to the revitalized—after the First World War—colonial empire of the European powers.

In May 1927, Ford ceased production of their best-selling Model T to give way in October of that year to the new Model A. In 1928 the facilities of Ford's manufacturing and assembly complex along the Rouge River in Deaborn—whose work began in 1917—were fully operational. The growing demand for tires so as to factory equip all units supported the company's vision for the future: in 1927 an agreement was reached for the purchase of land in Brazil and the establishment of a production center on the east bank of the Tapajós River, one of the Amazon's largest tributaries.

From this strategic enclave, in operation since 1928, it was possible to monitor the cultivation of *Hevea brasiliensis*, the plant from which the most pure and coveted latex was extracted. In addition, the production was initiated for certain articles derived from the plant's treatment. The set of facilities and dwellings formed a singular complex, which soon was baptized with the name Fordlandia.After several years of unsuccessful struggling, the investment proved to be of low profitability—to which several factors contributed, such as the development and viability of synthetic rubber—and was finally dismantled in 1945. Ford manufactured their own tires on American soil—to equip a fraction of their cars—between 1938 and 1942, the latter being the year in which production, along with machinery, was transferred to their facilities in Russia. Epstein (1949), notes on p. 68.

46. "Michelin factory changes likely to bring about better production," *The Milltown Review*, October 3, 1929.

47. Ibid.

48. "Michelin is laying out model tire factory in Milltown; hand labor to be largely eliminated," *The Milltown Review*, November 28, 1929.

49. It was speculated that it might be Henry C. Young, who at the time was superintendent of the Michelin factory in Milltown and professionally based in Akron. Rumors began after two visits to the factory that he made in the last week of September. "Michelin factory changes likely to bring about better tire production," *The Milltown Review*, October 3, 1929.

50. "Michelin factory shutting down, throwing 300 employes out of work; mergers discussed," *The Milltown Review*, April 25, 1930.

51. "Michelin plant to reopen," *Automotive Industries*, May 24, p. 815.

52. "Michelin to give employees $700,000," *The Port Arthur News*, July 17, 1930. "Men laid off to get Michelin bonuses," *The New York Times*, July 18, 1930; "Michelin employees will get $700,000," *San Antonio Express*, July 18, 1930; "$700,000 bonus given, 7,000 employees, idle more than three months," *The Clearfield Progress* (Clearfield, Pennsylvania), July 18, 1930; "Michelin gives to employees," *The Sunday Avalanche Journal*, July 20, 1930. "New Jersey," *The India Rubber World*, August 1, 1930.

53. "Michelin tire plant forced to close," *Fitchburg Sentinel*, September 10, 1930; "Michelin will end tire making here," *The New York Times*, September 11, 1930; "Michelin tire plant permanently closed," *The Wisconsin State Journal*, September 11, 1930; "Michelin to close plant permanently," *Syracuse Herald* (Syracuse, New York), September 11, 1930; "Michelin not to reopen," *The Morning Herald* (Hagerstown, Maryland), September 12, 1930.

54. "Pacific Coast," *India Rubber World*, June 1, 1927, p. 161.

55. *India Rubber World*, August 1, 1927, p. 281.

56. "Lowensteins buy tire firm" and "Tire firm's sales large," *San Antonio Light*, April 6 and 13, 1930.

57. "Basketball has many supporters in this borough," *The Milltown Review*, November 28, 1929.

58. "Michelin factory shutting down, throwing 300 employes out of work; mergers discussed," *The Milltown Review*, April 25, 1930.

59. As Brian Harto, a member of the Milltown Historical Society, explained to me personally.

60. "David S. Servis," *The New York Times*, March 4, 1945.

61. "Walter Richard Smith," *The New York Times*, October 3, 1955.

62. *The New York Times*, October 21,1930; *Brooklyn Daily Eagle*, October 30, 1930; *Fortune*, 1933.

63. As illustrated in the photograph reproduced and referenced in the chapter, facilitated by the archives of Michelin Patrimoine Clermont-Ferrand, France.

64. "Knitting Mill rents New Jersey Building," *The New York Times*, July 13, 1937.

65. "Jersey plant leased by metal goods firm," *The New York Times*, July 19, 1938.

66. The list of companies that occupied some of the facilities includes: Algro Knitting Mills Inc. (1937), Metalfield Inc. (1938), and from 1939-1940, Chicopee Manufacturing Co. (1946), Johnson and Johnson, Heidingsfeld Printing Co., Oakite Products Corp. and Asol Corporation. Lawrence Berger, the new owner, continued with the landlord's policy of the facility. According to *Stage I: A cultural resources survey of the project area for the former Michelin Tire factory, Ford Avenue*

Milltown, Middlesex County, New Jersey; pp. 36-37.

67. "Michelin Tire expands," *The New York Times*, January 2, 1950.

68. "Vacant plot sold on East 46th St.," *The New York Times*, March 29, 1950.

69. "Arthur J. Lowenstein dead at 72; president of Michelin Tire Corp.," *The New York Times*, August 1, 1962.

70. "Walter Richard Smith," *The New York Times*, October 3, 1955.

71. Information provided by Francesca Tesi, authorized by Michelin to access and consult Michelin's *Histoire de Michelin* on the history of Michelin, a book commissioned by the company to the writer and journalist Tristan de La Broise. The manuscript, completed in 1999, remains unpublished because the company decided not to publish it. There are several copies of this work that are zealously conserved internally, but my requests through Michelin Patrimoine to consult them were never met. Tesi (2007), pp. 23-24.

72. Although the news item appeared in 1928, I do not have the exact reference date of the publication in the French magazine *Agence Économique et Financière* (I had access to an excerpt extracted from the page, as part of a dossier compiling news provided by the Archives of Crédit Lyonnais).

73. For the review in American press, "Michelin Tire," *The Wall Street Journal*, May 29, 1929.

74. "Michelin et Cie," *Agence Économique et Financière*, May 23, 1930.

75. According to the news brief published in *Journal des Finances*, June 10, 1932.

76. Of course the chronicles on the development of the crisis in the Milltown factory were followed with interest and disseminated by the French press, as exemplified by news published in the Parisian monthly magazine *L'Europe Moderne* in its October 1930 issue, reproducing a note from *L'Agence Nationale* of July 13, 1930: "Michelin et Cie. The die is cast. The company's Vice President announces that it is going to stop production in the United States and will close the Milltown, New Jersey facility because it cannot cover their expenses due to the economic crisis currently plaguing the tire industry."

77. "Caoutchoucs. Coloniales," *Journal des Finances*, number 20, May 13, 1932, p. 393. "Le superpa riote s'installe en Norvège," *Le Cri du Peuple*, June 18, 1932.

78. As stated in the article "M. Michelin interviewed 'at home'," *The Automobile*, April 18, 1907. p. 680. The expression "Michelin boit l'Amerique" remained in French in the original news item of the American magazine.

Bibliography

Blackford, Mansel G.; Kerr, Kathel Austin.
BFGoodrich: Tradition and Transformation, 1870-1995.
Columbus: Ohio State University Press, 1996.

Bryan, Ford Richardson. *Beyond the Model T. The Other Ventures of Henry Ford.*
Detroit: Wayne State University Press, 1990.

Carlsmith, Leonard E. *The Economic Characteristics of Rubber Tire Production*.
Doctoral thesis. New York: Columbia University, 1934.

Duvert, Rémi. "La filature de soie de Clairoix (Oise)." Collection *Les Notices Historiques Clairoisiennes* number 2, 2009. Association Art, Histoire et Patrimoine de Clairoix.

Dumond, Lionel. *L'Industrie Française du Caoutchouc, 1828-1938: Analyse d'un Secteur de Production.* Doctoral thesis, Université Paris 7-Denis-Diderot, 1996.

Epstein, Ralph C. *Concentration and Price Trends in the Rubber Tire Industry, 1930-1947.* Akron: Federal Trade Commission, 1949.

Erker, Paul. *Competition and Growth: a Contemporary History of the Continental AG.* Düsseldorf: Econon, 1996.

—"Continental contre Michelin: les industries pneumatiques allemande et française pendant la guerre et la résistance des structures oligopolistiques traditionnelles," *Histoire, Économie et Société*, volume 24, number. 4, 2005.

Exenberger, Andreas. *Ford's Obsession to Rubber. An Empirical Study about Irrational Decision Making.* Annual Meeting of the Austrian Economic Association / Jahrestagung der Nationalökonomischen Gesellschaft, Innsbruck, May 28,2005.

Fredet, Jean-Gabriel; Pingaud, Denis. *Les Patrons Face à la Gauche.* París: Éditions Ramsay, 1982.

French, Michael J. *The U. S. Tire Industry. A History*. Boston: Twayne Publishers, 1991.

—"Structural change and competition in the United States tire industry, 1920-1937," *The Business History Review*, Volume 60, number 1, Spring 1986, pp. 28-54. Harvard Business School Publishing.

Gaffey, John Dean. *The Productivity of Labor in the Rubber Tire Manufacturing Industry*. New York: Columbia University Press, 1940.

Gettell, Richard Glenn. *Pluralistic Competition: with an Illustrative Case Study of the Rubber Tire Industry*. Doctoral thesis. Berkeley: University of California, 1940.

Grandin, Greg. *Fordlandia. The Rise and Fall of Henry Ford's Forgotten Jungle City*. New York: Metropolitan Books/Henry Holt & Co., 2009.

Jouas, Josette. *Ces Bretons d'Amérique du Nord.* Rennes: Éditions Ouest-France, 2005.

Klepper, Steven; Simons, Kenneth. "The making of an oligopoly: firm survival and technological change in the evolution of the U. S. tire industry." *Journal of Political Economy*, volume 108, number 4, 2000. University of Chicago.

Leigh, Warren W. *Some Marketing Problems of the United States Automobile Tire Industry and Some of Their Effects Upon that Industry Since 1922.* Doctoral thesis. Evanston, Illinois, School of Commerce, 1936.

Panthou, Éric; Binh Tran Tu. *Les Plantations Michelin au Viêt Nam. Une Historie Sociale: 1925-1940*. Clermont-Ferrand: Éditions La Gallipote, 2013.

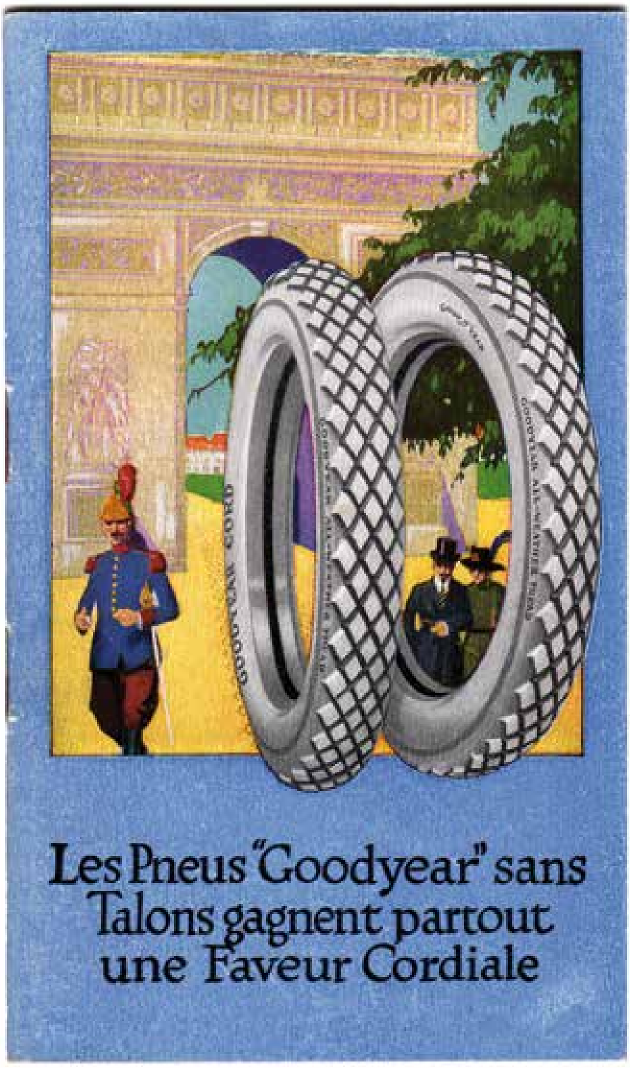
Tesi, Francesca. "The Michelin Tire Company: the American adventure (1907-1931)." This article contains the author's paper on the subject in EBHA-European Business History Association, 11th Annual Conference, Geneva, Switzerland, 13-15 September 2007. Curiously, the author dishonestly presented a large part of the text as her own—in the conference and in the article—without any kind of citation or reference. She actually literally copied, sentence for sentence, the article which I authored "Los años olvidados. La etapa americana de Michelin en Milltown, 1907-1929," published two years earlier in the book edited in three languages—Spanish, French and English—*Nunc est bibendum !!.. Un mito gráfico desde 1898.* Valladolid, Michelin España Portugal, 2005.

Ford Motor Company's Brazilian rubber plantations. Dearborn, Michigan, Benson Ford Research Center, The Henry Ford, 2011. Accessible at www.thehenryford.org

Stage I A cultural resources survey of the project area for the former Michelin Tire factory, Ford Avenue Milltown, Middlesex County, New Jersey. Report prepared by the company Boraie Development, LCC for the remodeling and development project of Ford Avenue promoted by Milltown City Hall through the Milltown Ford Avenue Redevelopment Agency, August 2006.

The monopolies and restrictive practices commission report on the supply and export of pneumatic tyres. Presented to Parliament in pursuance of Section 9 of the Monopolies and Restrictive Practices (Inquiry and Control) Act, 1948. London: Her Majesty's Stationery Office, December 1955.

"American tires now factors in Europe," *Motor Age*, May 23,1912, p. 34.



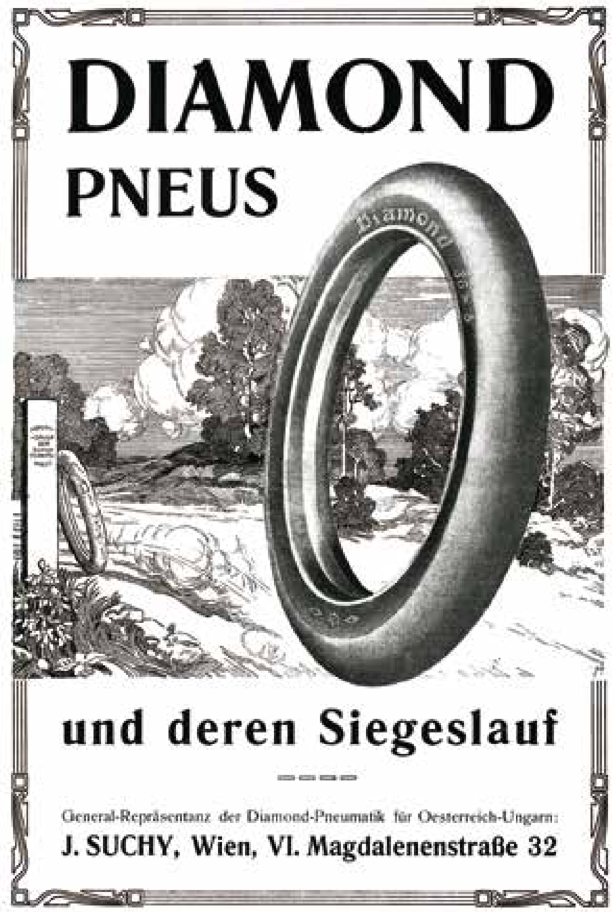
OPEN MARKET.

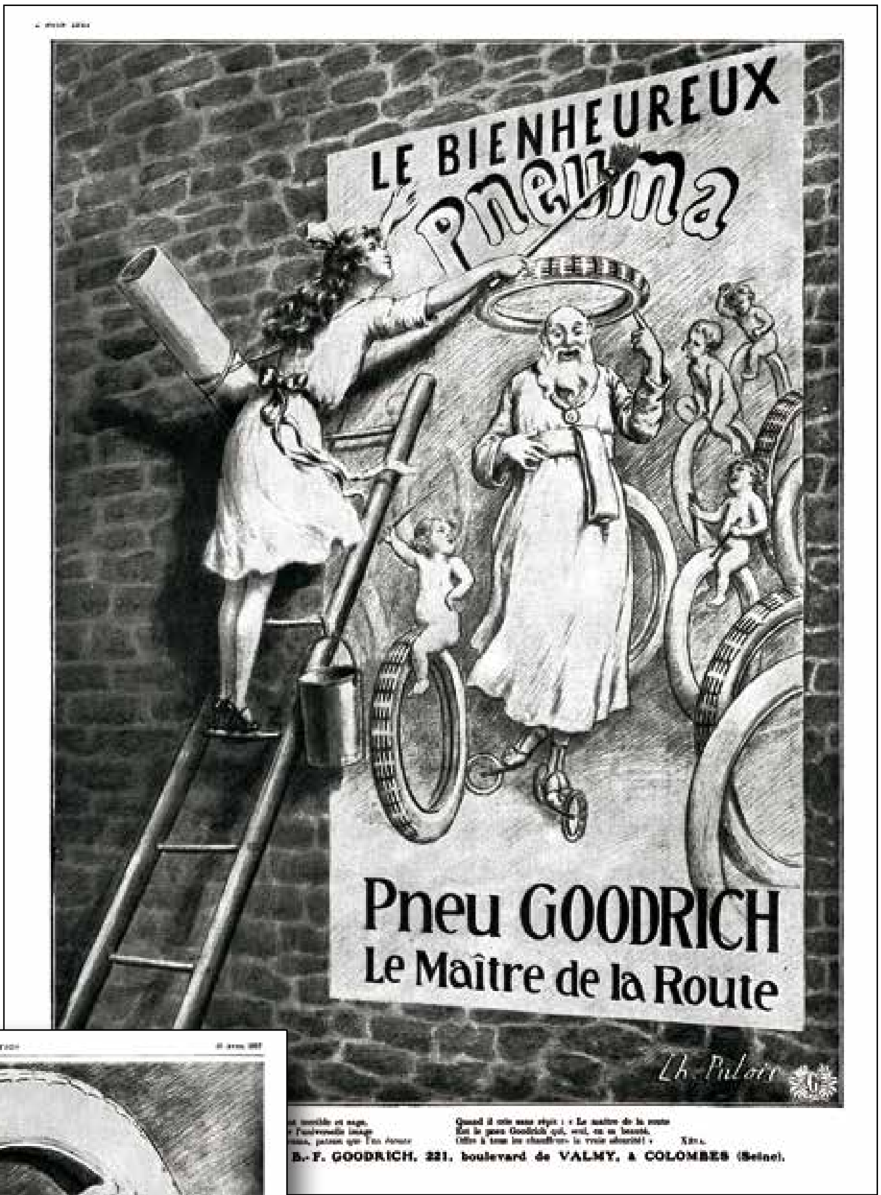
In the years following the Great War, garages and automobile accessory shops in France had an ever-expanding array of formerly minority brands. The above image shows the facilities of Henry Nigon Etablissements in the town of Béziers, Languedoc-Roussillon, with their shop and mechanical repair garage. Of note is the list of available tires, as they were an official authorized agent for tires from France's Michelin, Belgium's Englebert and American's Goodyear and Royal-Cord (United States Tires) companies. The image on the left displays the cover of a Goodyear publicity booklet in which, over some twenty pages, they explain in detail the advantages of the straight side system—standardized in America—of fixing covers to rims, challenging the prevailing clincher / beaded edge (pneu à talons) technology in France.
The illustration uses the patriotic symbol of the Parisian Arc de Triomphe as a reference, over which Goodyear tires are superimposed, reinforcing by association the brand being linked to the territory.

1. Etablissements Henry Nigon promotional postcard. Photograph by E. Roques (Béziers). Postmarked 1924.
2. French advertising brochure for Goodyear straight side imported tires, c. 1914.

A DIAMOND IS FOREVER.
The examples of advertisements shown here reflect the commercial onslaught that the American firm Diamond Rubber Co. began in 1911 to position themselves in European markets. The design of the advertisement originally created to be published in American press, as seen in the image on the right, served as a basis for corresponding local versions, in this case the French and German, as shown below. Although no reference is made to a concrete rival brand, this is a case of indirect comparative advertising as it does present unequal confrontation between an "ordinary" tire and the Diamond tire. Diamond covers remain intact thanks to their long life span while the rival lies next to a road post, worn and battered after trying to follow Diamond's lead.

3. Advertisement for Diamond tires published in the American magazine *The Review of Reviews,* 1911.
4. Advertisement for Diamond tires published in the French magazine *Lectures pour Tous,* 1912.
5. Advertisement in the German Automobile Club magazine *Allgemeine Automobil-Zeitung,* April 16, 1911.



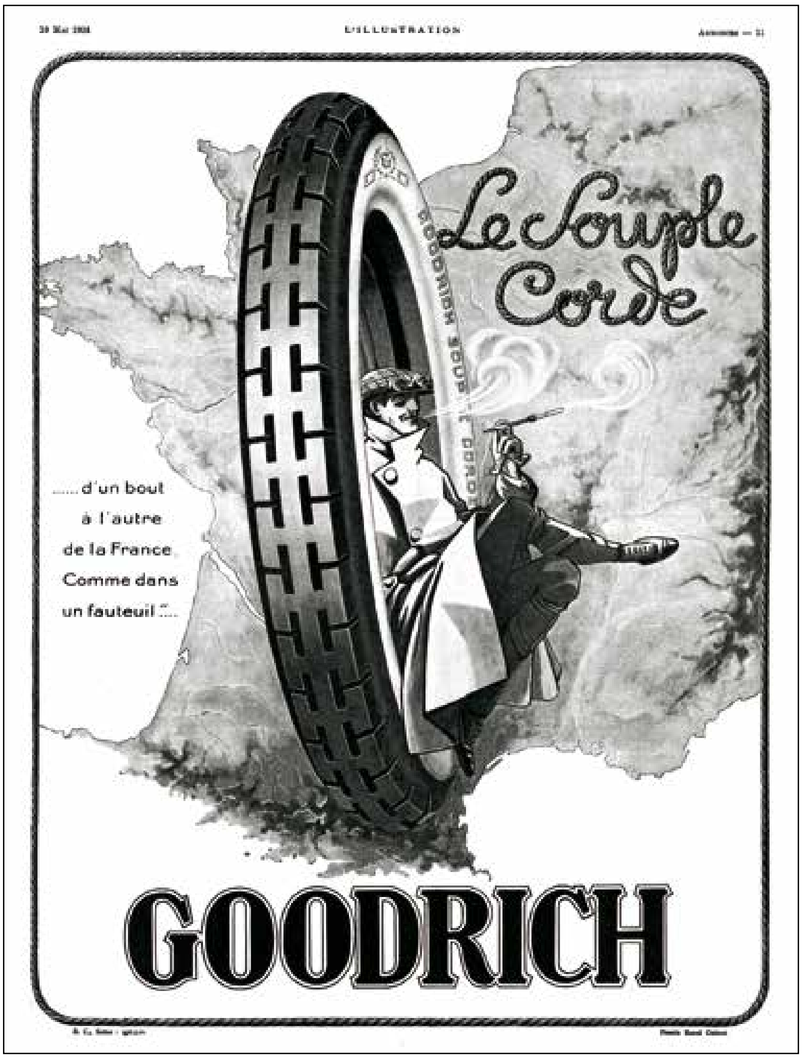


THE MASTER OF THE ROAD.
In 1917, along with the slogan "Le Maître de la Route," Goodrich used a series of characters to advertise their Safety tire model. The person in charge of illustrating them was the academic painter and muralist Charles Putois, born in Mâcon (Saône-et-Loire). One of the characters is the young Miss Safety that appears on the left holding the advertised product. In the image above, a poster is being hung in which another protagonist is presented, portrayed with his characteristic attributes, the aura in form of a tire over his head and an inner tube used as a belt at his waist. This is Pneuma, a sort of male deity "Patron of motorists and everything that is pneumatic." The newly-bred being does not come from beneath cabbage leaves, as tradition has it, but "is born in the village of Colombes, from the interior of a red Goodrich inner tube," as stated in the advertising text.

6. Full-page advertisement for Goodrich's French tires published in the magazine *L'Illustration,* June 2, 1917.
7. Full-page advertisement for Goodrich's French tires published in the magazine *L'Illustration,* April 28, 1917.

MADE IN FRANCE.
The Safety tire was produced on Goodrich's premises in Colombes when production started in 1911, along with other models such as Lisse, Ferré—having smooth treads and metal trim, respectively, which soon became obsolete—and solid rubber tires for heavy vehicles. The tread of the Safety model was entirely rubber, formed by the aligned repetition of modules composed of five parallel and vertical bars, joined by another that passed through the center. This pneumatic tire tread design and fabric technology applied for its construction were replaced at the beginning of the twenties by the Souple Cord model based on cord technology. In the illustrations of the examples shown on this page —above, the Safety model and on the right, the Souple Cord that replaced it—references to territorial and patriotic affiliation were utilized, as a means of asserting Societé Française BF Goodrich's claim to be recognized as an eminently French industry.

8. Advertisement for Goodrich Safety tires published in the French magazine *L'Illustration,* October 30, 1920.
9. Advertisement for the Goodrich Souplé Cord in *L'Illustration,* May 10, 1924. Illustration by Raoul Guinot.



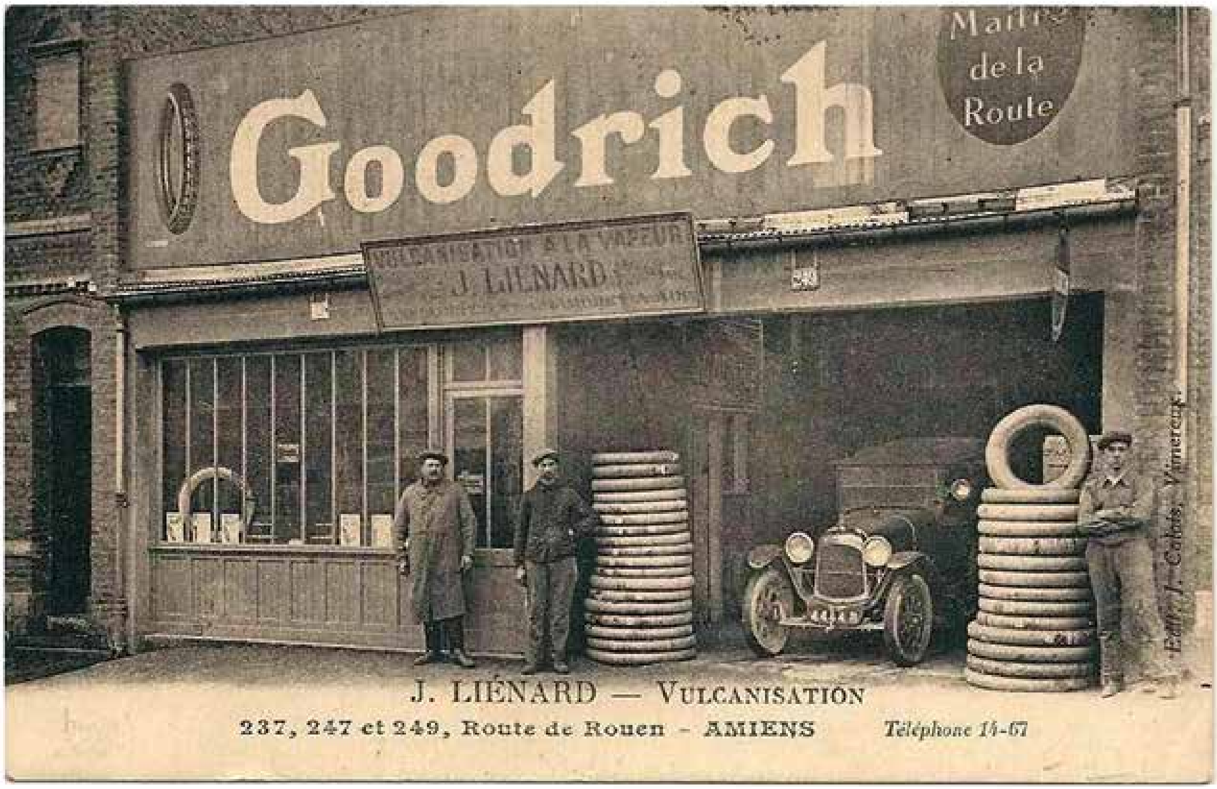
PAYING REVERENCE.

The image above shows one of the advertising posters for the French branch of Goodrich illustrated by Raoul Guinot. The illustration depicts the admiration a stagecoach driver has for the Goodrich tire, the authentic "Maître de la Route" before which he takes off his hat and bows in respect. The composition plays with the concept of progress, confronting the obsolete animal-drawn carriage—a parked carriage in the background—with the modern technology of motor vehicles—the gigantic tire in the foreground. The Guinot illustration was reproduced in different publicity and promotional elements such as postcards, brochures, posters and press announcements.

The image on the left shows its adaptation to a full color advertisement for the 1923 cover of *Automobilia,* a French magazine of the automotive sector.

10. French lithograph poster for Goodrich, c. 1923. Illustration by Raoul Guinot.

11. Cover of the bi-monthly illustrated magazine *Automobilia,* May 15, 1923.



BACK TO BASELINE.
By the end of the 1920s Goodrich was fully positioned in the French market, having established considerable commercial deployment and with the Colombes factory operating at full capacity. The situation radically changed in the early 1930s, with the severe global crisis affecting the American parent company and the entire industry. The progressive decline of the firm's operations in France resulted in a change in the company's policy and in the decision to transfer administration to a local management team, endowed with its own decision-making power.

12. Postcard of the mechanical workshop J. Liénard, in the French town of Amiens, 1929.
13. Corporate stationery of the establishments representing Goodrich, in this case for the mechanical repair business M. Lusteau, in the town of Port-Saint-Pére, 1928.


CYCLES ET AUTOMOBILES -:- GARAGE

VENTE :: ÉCHANGE :: LOCATION
Réparations de toutes Marques
- TOUR ET AJUSTAGE -
MÉCANIQUE GÉNÉRALE
ARMES :: MACHINES A COUDRE
ÉCRÉMEUSES

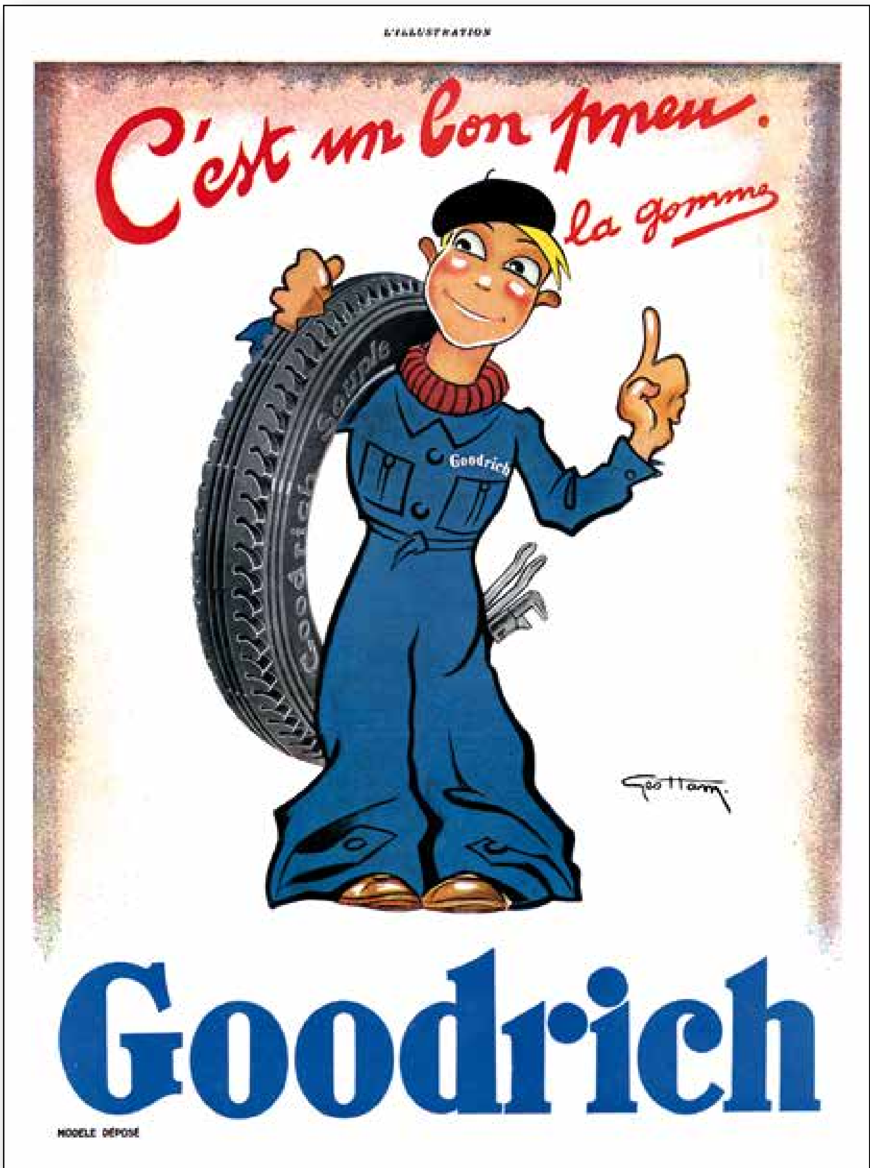
M. LUSTEAU
MÉCANICIEN
PORT-SAINT-PÈRE (Loire-Inférieure)

Port-Saint-Père, le 5 Janvier 1928

Monsieur D'HUYTEAU à BOUAYE Doit

Novembre 1927		Conduire la voiture à Nantes pour redresser les 2 ailes avant Redresser et souder les 2 ailes peinture	120
	2	bidons essence	22 70
			142 70
			23
			165 70

"GOODRICH"
LE MAITRE DE LA ROUTE

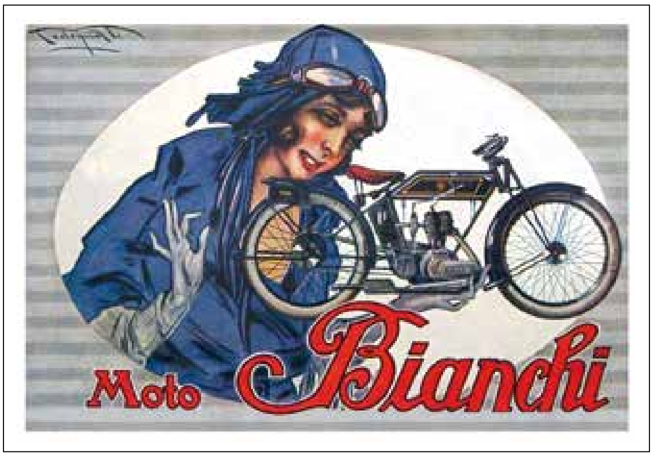


THE LITTLE MECHANIC. Goodrich low-pressure cord technology tires, which appeared on the American market in 1924, were subsequently produced at the Colombes factory for the French market. Around 1930 the renowned illustrator and poster artist Georges Hamel "Geo Ham" (1900-1972) devised a mascot to accompany the product in their advertising campaigns. It dealt with "La Gomme," a friendly portrayal of a young man who worked as a mechanic at a repair shop. He was dressed in a blue jumpsuit, with levers and tools in his pocket, and carrying a Goodrich pneumatic tire over his shoulder. This pose was very similar to the well-known corporate character of the U.S.-based Fisk Rubber Company, the boy in his pajamas.

14. Goodrich's advertisement in *L'Illustration,* September 3, 1927. **15.** Full-page advertisement in *L'Illustration,* October 3, 1931.

THE GOODRICH NURSERY.
The image above shows one of the shops in Goodrich's network for the sale of their products in France, around 1930. As can be seen in the façade, the presence of the little mechanic was displayed multiple times on different supports and adaptations, both outdoors and out in the open—the resistant and durable enameled signs—as well as inside displays and windows sheltered from the elements in the form of small posters, cardboard cut-outs and volumetric figures. In addition, the character was also used in promotional material and for corporate identity, such as brochures, stationery and envelopes. The slogan "Securité sur pneu Goodrich" represented the continuity of the message from previous campaigns, such as the utilization of the feminine figure Miss Safety to endorse the Safe model in 1917.

16. Photograph of a distributor for Goodrich products in France, c. 1930.
17. Two-sided enameled metal sign, used to identify businesses and advertise Goodrich tires. 60 x 80 cm. Illustration by Geo Ham.

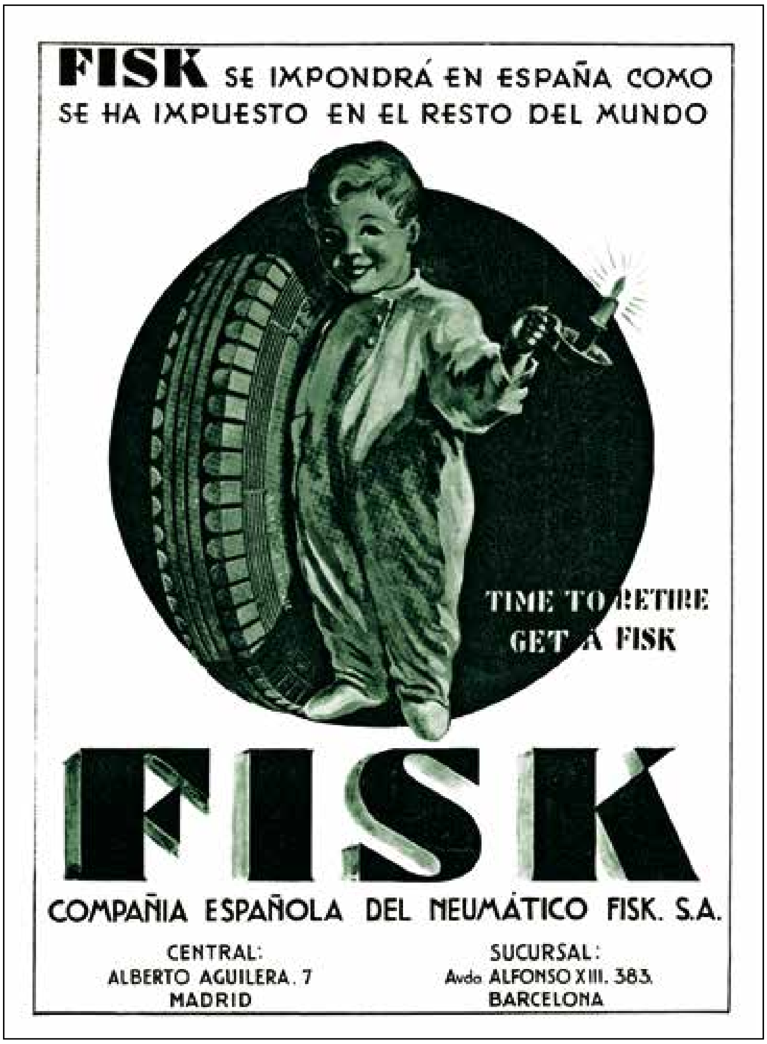


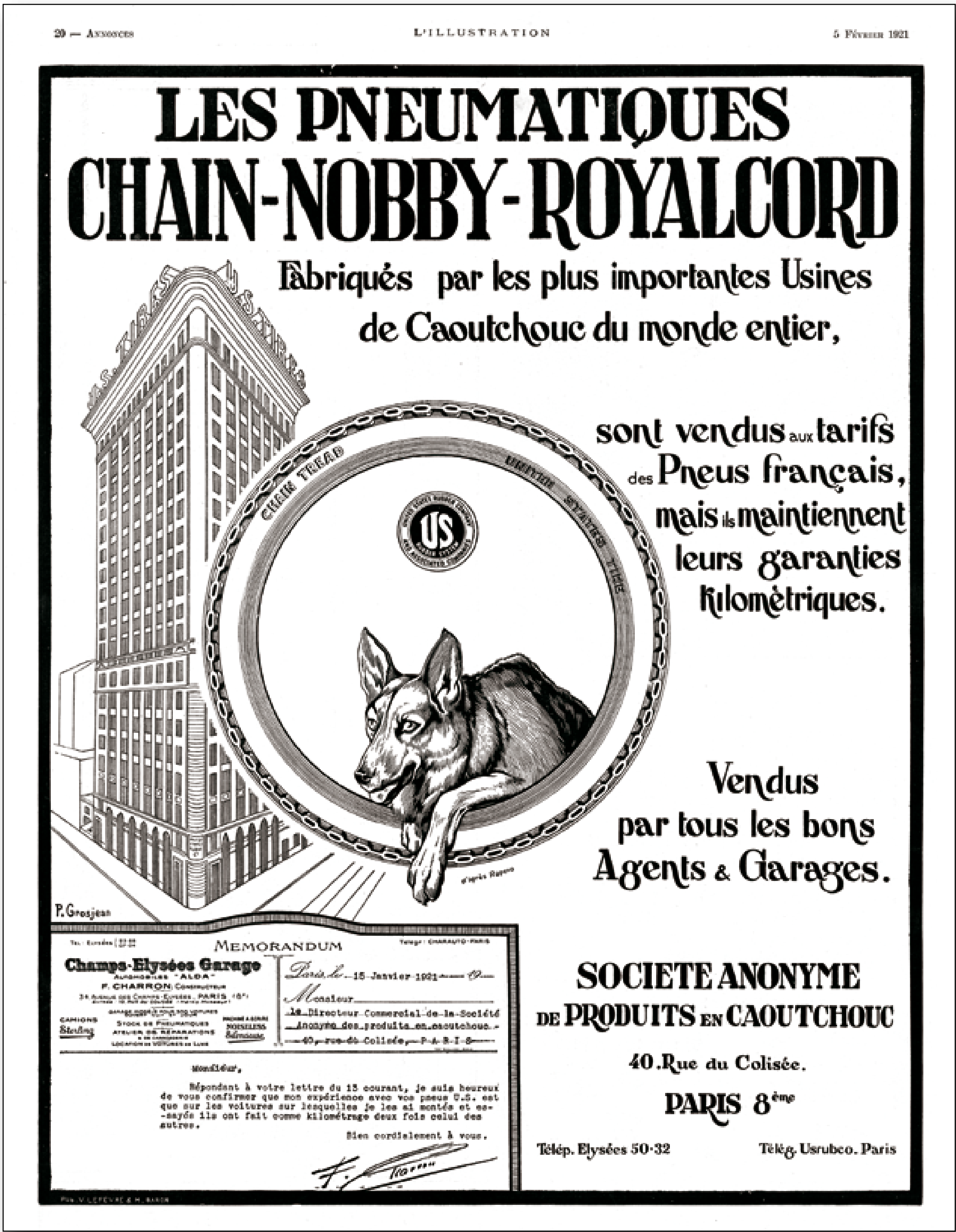
CARNALITY. The renowned illustrator and poster artist from Italy, Plinio Codognato (1878-1940), was one of those in charge of the advertising for Goodrich's Italian division based in Milan. The artist settled in that city in 1918, where his work focused on brands linked to the motor world such as Fiat and Bianchi, motorcycles NSU, Frera and Gilera. He also created posters and advertisements for tire firms such as Maison Talbot, Goodrich, Dunlop , Englebert, Morgan Tyre, United States Tires and Pirelli. The modest and innocent character of Miss Safety created by Putois was reinterpreted for the Italian market by Codognato, being transformed into yet another one of the carnal and sensual women that were habitual in his advertising graphics.

18. Goodrich's advertisement on the cover of *Rivista Mensile del Touring Club Italiano,* March 1920.
19. Advertising postcard for Bianchi motorcycles, c. 1925.

BEYOND THE PYRENEES ...
After the end of World War II, the principal American companies decided to consolidate their positions in the European continent, either through the installation of production centers or through the strengthening of their import and distribution agencies.
In the Spanish market, for example, the local agency for Goodrich was supplied by tires coming from the neighboring French subsidiary factory in Colombes. According to Blackford and Kerr (1996, p. 105), the combined sales of Goodrich tires in France and Spain for the first nine months of 1929 exceeded $5.5 million, a profitable and lucrative business.
Other American companies such as Fisk, Mohawk, United States, Firestone or Goodyear were also present in the Spanish market—which lacked a tire industry of their own—but always utilized import agencies.

20. Advertisement for Goodrich tires published in the Spanish press, 1923. Triunfo Advertising Agency.
21. Advertisement for Fisk tires in the Spanish magazine *Nuevo Mundo,* 1929.



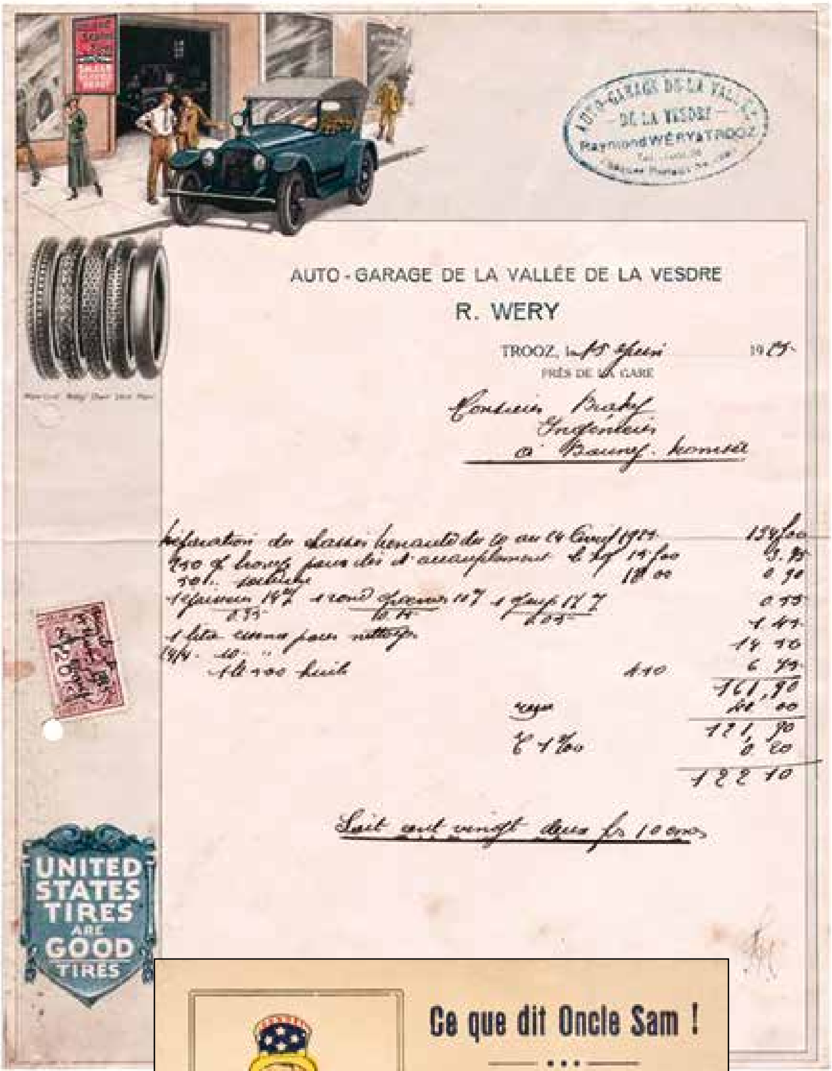


THE AMERICAN PORTAL. The image above portrays a surprising testimonial advertisement for tires imported by the Parisian Societe Anonyme de Produits in Caoutchouc and manufactured by the powerful company United States Rubber: the Chain models—with non-skid rubber studs in the shape of a chain, as the English name indicates—Nobby and Royal Cord. Two graphic elements stand out in the composition. On one hand, there is the perspective drawing of the U.S. Rubber Co. building—illustrated by P. Grosjean—, built in 1912 on the corner of Broadway and West 58th Street in New York City to house the company's headquarters, which was unknown to the French public. On the other hand, there is the illustration of the German shepherd—signed by Armand Rapeño—, a symbol of fidelity and security used in their advertisements by several tire companies.

22. Advertisement for United States Rubber Company tires published in the French magazine *L'Illustration,* February 5, 1921.

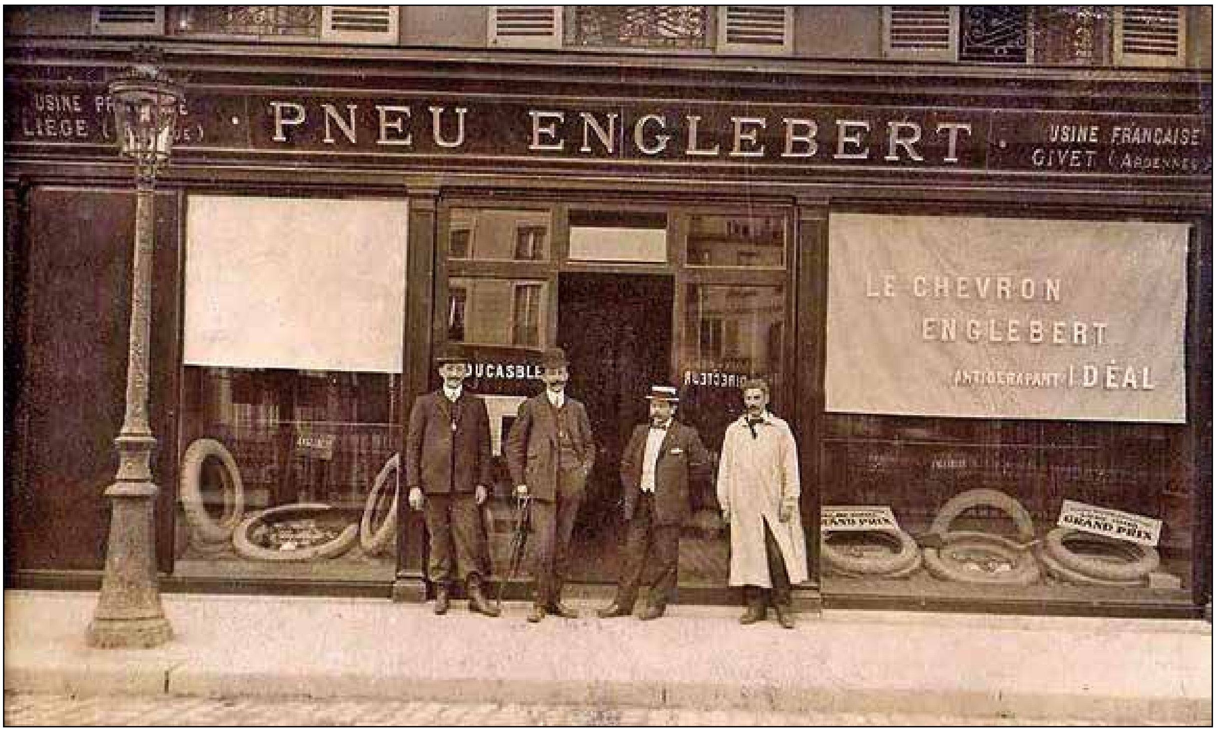
FRENCH PRESENCE.
To the right, an image of the original United States Rubber stationery used in America which was also utilized in their associated French establishments. Below left, a woman in military uniform and carrying the flag with the stars and stripes reminds us that the American tire rendered a great service in the war, and was now preparing to become the "ideal pneumatic" of the new era. Below right in a promotional postcard, Uncle Sam endorses the message repeating the American slogan of the company in French: "United States Tires Are Good Tires."

23. U.S. tires stationery, 1923.
24. United States Rubber promotional postcard for their Chain Tire, c. 1920.
25. Belgian promotional postcard for imported United States Rubber tires, c. 1920.



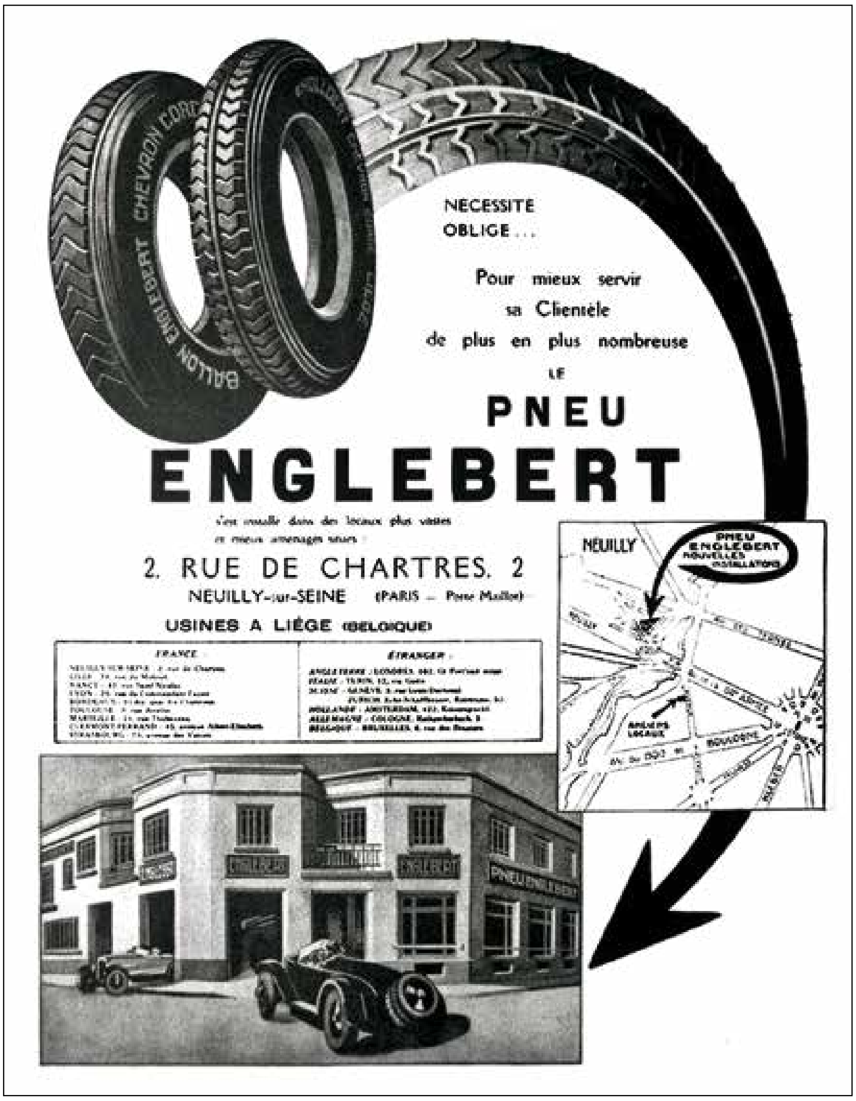
PIRELLI AND FIRESTONE. Other companies in the sector increased their presence in France through subsidiaries such as the Société Française Pirelli. Apart from this, agreements were also made with import agencies, such as the Compagnie Génerale de Commerce in the case of Firestone.

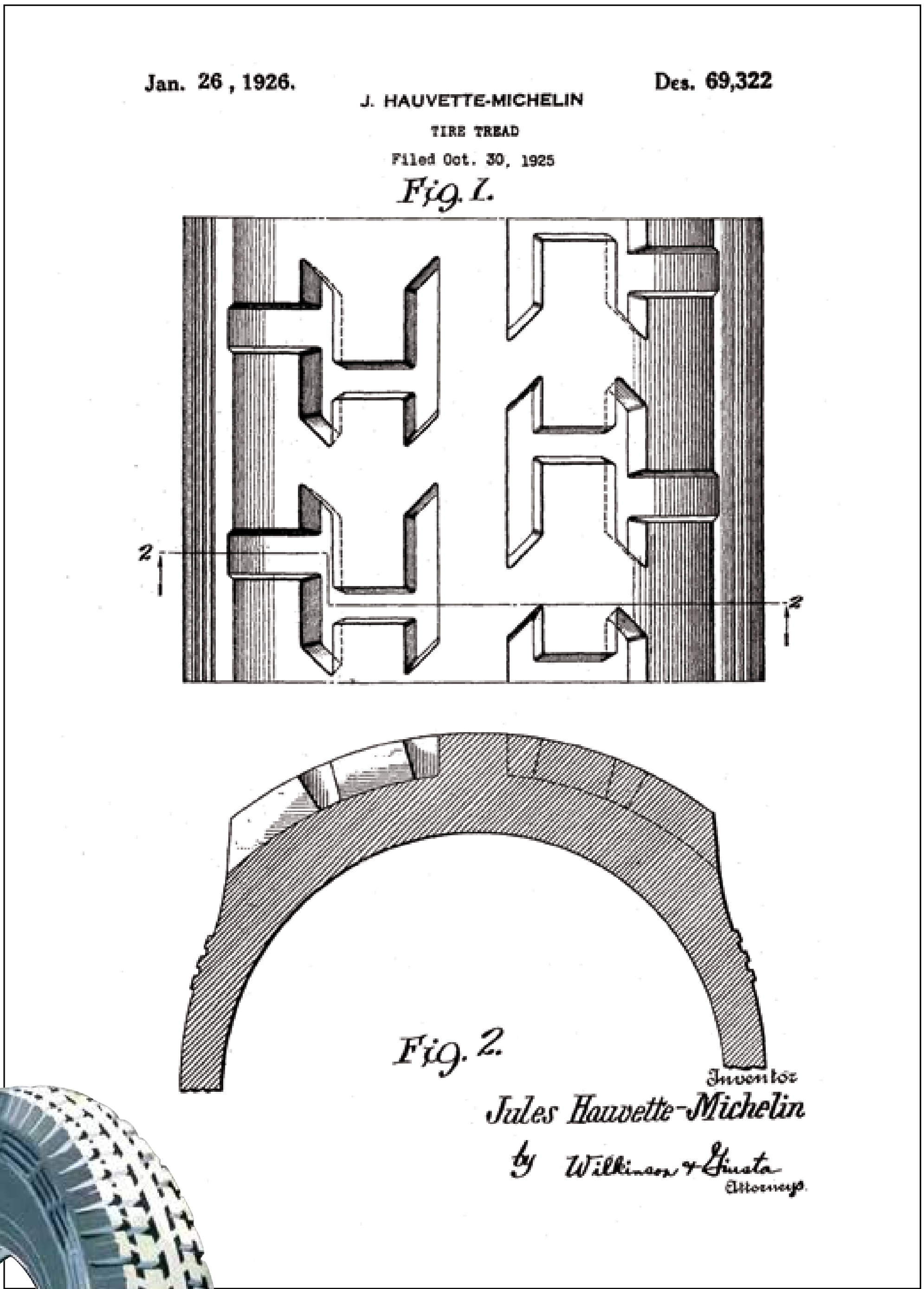
26. Advertisement for Pirelli tires in *L'Illustration* magazine, October 4, 1924. Illustration by Alexis Kow (1901-1978).
27. Module advertisement for the American Firestone Non-Skid tire published in *L'Illustration* magazine, October 30, 1920.



BELGIAN EMBASSY.
The above photograph shows the facade of the Belgian company Englebert's headquarters in Paris, at 156 Malakoff Avenue. As can be read on both sides of the main sign above the door, the firm owned factories in Liège, Belgium, and Givet, in French territory.
On the right a press advertisement from 1926 is shown, informing about the transfer of facilities to a new, more spacious installation, located at number 2 Rue de Chartres, in the Metropolitan area of the capital Neuilly-sur-Seine.
In that same year Englebert had delegations in several French cities: Clermont-Ferrand, Bordeaux, Strasbourg, Lille, Lion, Marseilles, Nancy, Paris and Toulouse.

28. Photographic postcard, c. 1910.
29. Advertisement for Englebert tires in the French magazine *L'Illustration,* October 2, 1926.



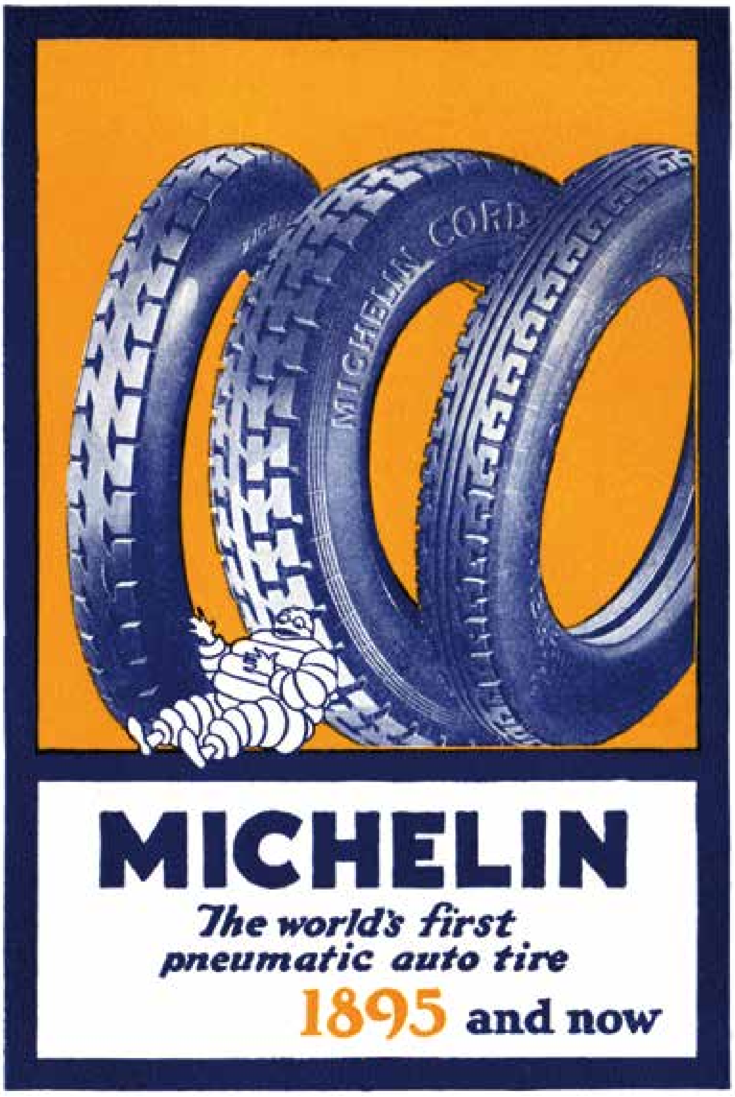


THE SUPERTREAD.
The patent for the tread design named "Supertread" had been requested October 1925, and was accepted three months later, in January 1926. Production and commercialization—this model was exclusive for the American market—still had to wait one year, and finally, in February-March 1927, the first pneumatic tires appeared with the new tread.

30. U.S. Patent number 69322 for the Michelin tread known as Supertread.
31. Detail of the enameled metal identification plate for official Michelin-contracted workshops and garages, showing a reclining Bibendum inside a Supertread pneumatic tire, c. 1927.

THE TRANSCENDENT TIRE. The image below shows a Michelin postcard portraying the dawn of a new era, the era of the Supertread tire. It deals with a tire that, as the press advertisement on the right also indicates, was destined to mark a new era that was "epochal."

32. Michelin modular advertisement in an American newspaper, November 8, 1928.
33. Advertising postcard in the form of ink-blotter, c. 1928.



CATALOGUE. By 1928, Michelin's American subsidiary was marketing several types of pneumatic tires—manufactured at the Milltown factory—in which cord technology was applied to different tread designs for given models. The high and medium pressure models with Universal Tread, and low pressure models or balloon tires with treads known as Tiger-grip and Supertread.

34. Advertising sign for the Michelin Tire Co. for shop windows and interiors, c. 1928.
35. Examples of different tire models offered by Michelin in 1927-1928.

Michelin
High-Pressure Cord
Universal Tread

Michelin
Comfort Balloon
Tiger-grip tread

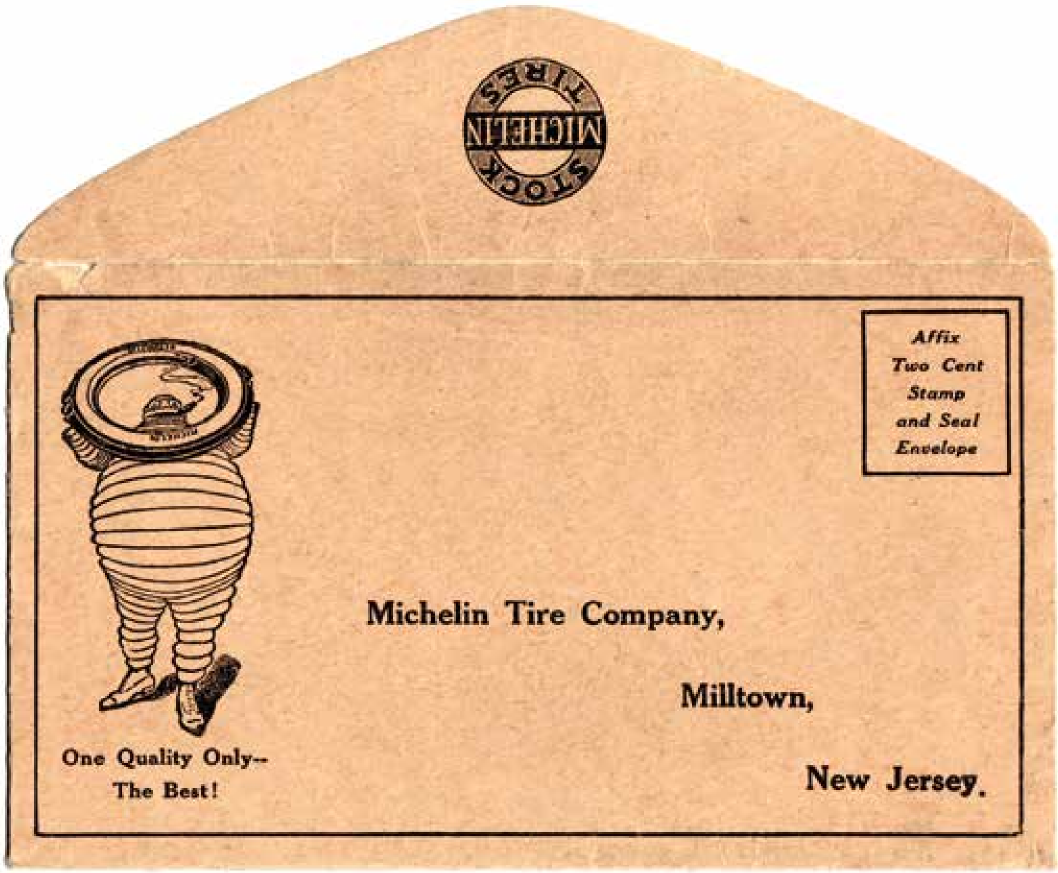
Michelin
Comfort
Balloon

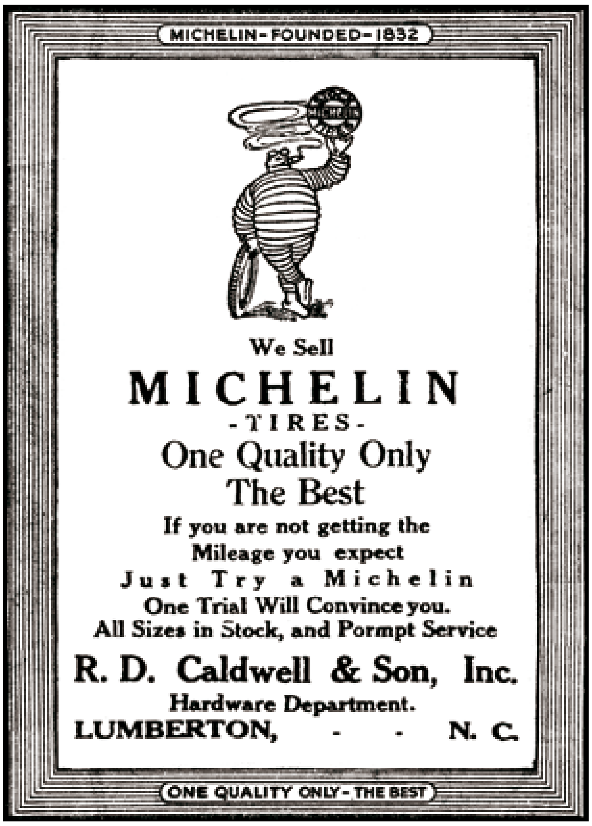
Michelin
Heavy Duty Balloon
Supertread

Michelin
Heavy Duty Cord
Supertread

THE ONE AND ONLY.
Since the beginning of the 20th century, Michelin's slogan "One quality only, the best" was persistently stamped on posters and press advertisements, underlining the company's commitment to the product quality offered and reinforcing the policy of product stability for their catalog. In the examples shown on this page, contrasting a 1912 British poster and an American 1971 Michelin advertisement—being almost sixty years apart—we see that the rationale has been perpetuated. Both the heading—"We refuse to make several grades of tires"—as well as the text—"Michelin makes only one grade. THE BEST"—emphasize the same message.

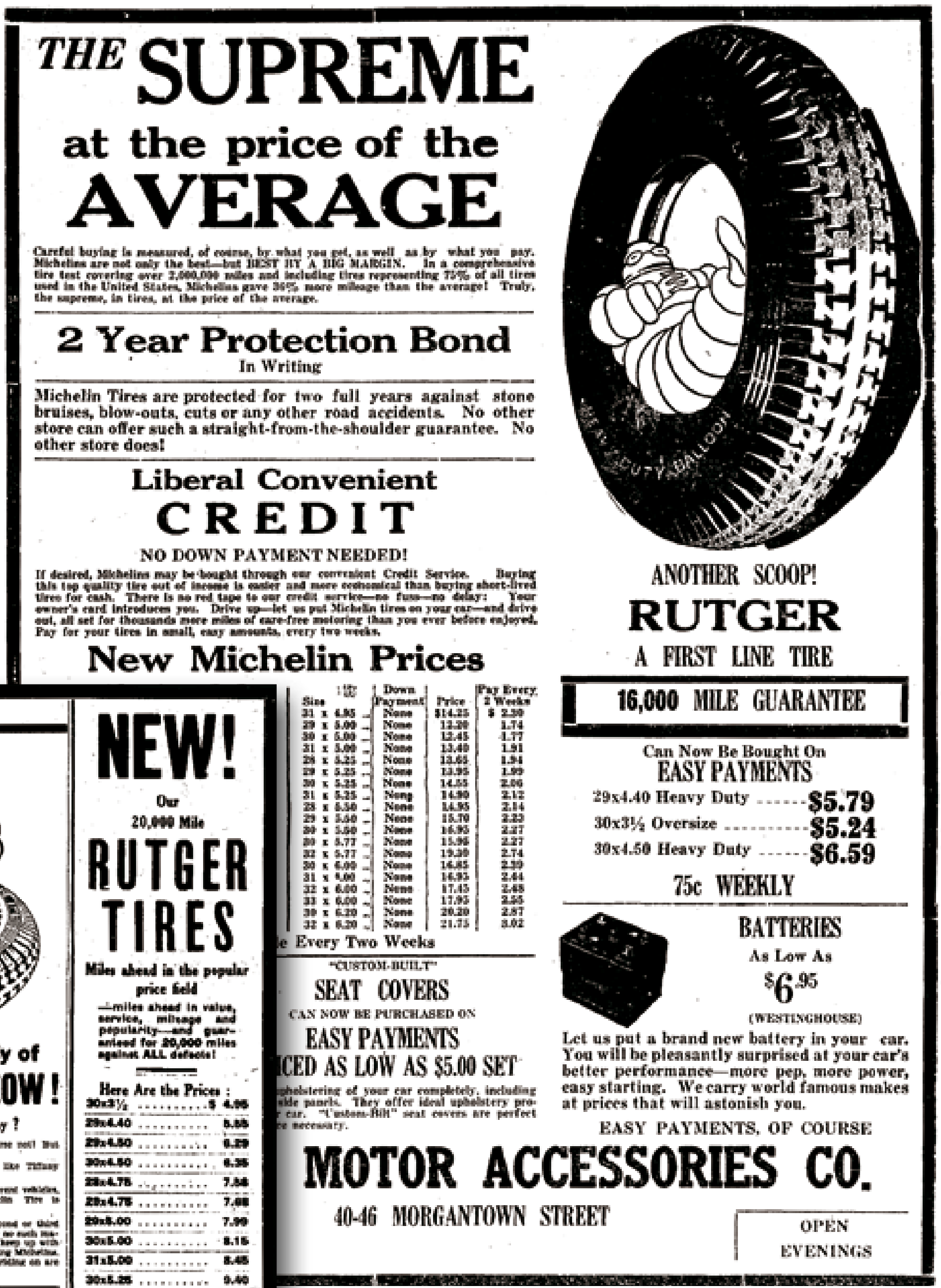
36. Full-page Michelin advertisement published in an American magazine, 1971.
37. Lithograph poster of Michelin bicycle tires for the British market, illustrated by H. L. Roowy, 1912.

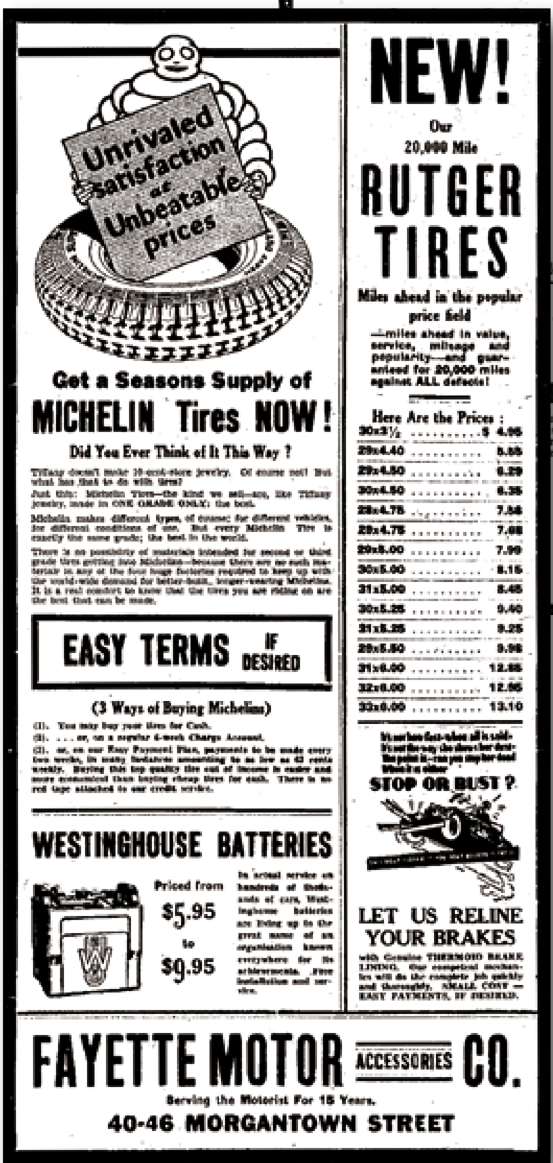




MORE THAN ONE. As was the case in France and in markets like Great Britain, Michelin employed the motto "One Quality Only. The Best " in their American campaigns. Other companies, as the example here shows, also wielded similar arguments in their advertisements, albeit on a one-off basis.

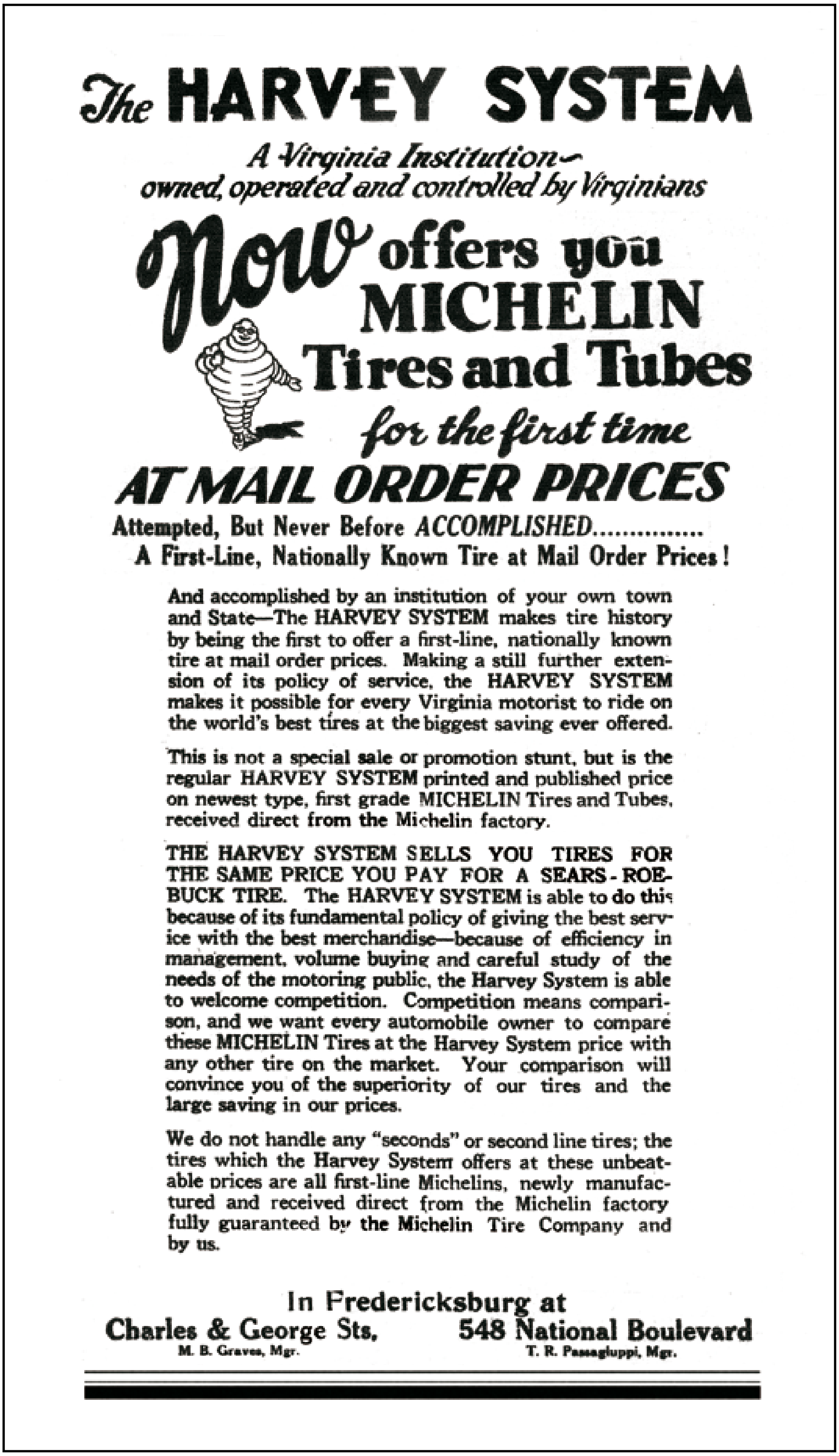
38. Corporate envelope of the Michelin Tire Co. in Milltown, c. 1912. **39.** Advertisement in the *The Robesonian,* September 2, 1915. **40.** Full-page advertisement for BF Goodrich published in the magazine *Automobile Topics,* September 30, 1922.





A SECOND BRAND.
The Rutgers pneumatic tires and inner tubes, manufactured as a second brand and at a more economical price, were advertised by sharing space with models commercialized with the Michelin label. By showing listings of models and tariffs alongside one another prices could be compared.
In this way, the company intended to cover different market segments having different levels of purchasing power.

41. Advertisement in the newspaper *The Morning Herald* (Uniontown, Pennsylvania), September 3, 1929.
42. Advertisement in the newspaper, *Daily News Standard* (Uniontown, Pennsylvania), May 20, 1930.



43. Advertisement published in the newspaper *The Free-Lance Star* (Fredericksburg, Virginia), March 24, 1930.

SALES. In view of the imminent cessation of Michelin's activities, various businesses associated with the commercial network initiated a rapid liquidation of accumulated stocks. The brand's potency, it's active salesman and ambassador Bibendum and the reputation of Michelin products were diluted in a sea of offers in which the price of the product was the true appeal. This was a far cry from the company's historical policy.

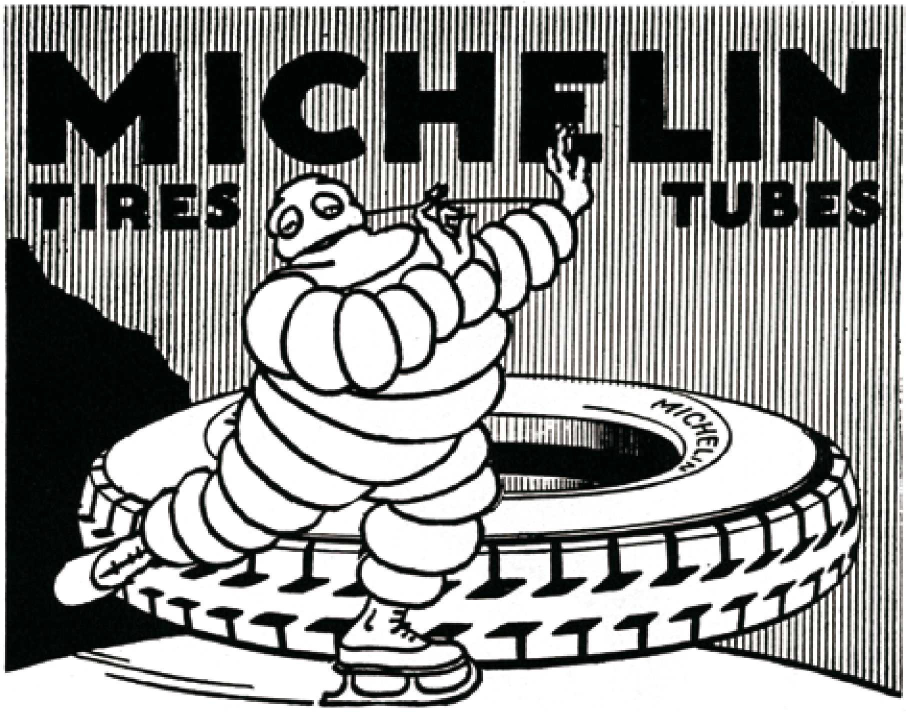
44. Advertisement published in the newspaper *San Antonio Light* (San Antonio, Texas), April 23, 1930.
45. Advertisement for the chain of Standard Stores published in the newspaper *Lowell Sun* (Lowell, Mass.), April 11, 1930.
46. Advertisement in the *San Antonio Light* newspaper, April 6, 1930.

THE GUARANTOR. On April 25, 1930, the cessation of producing Michelin tires was publicly announced. However, advertisements did not indicate that it dealt with an operation to sell off accumulated stocks. Thus, in the May advertisement shown here, the figure of Bibendum the Michelin tire man acts as guarantor of the product, as does the photograph of the person who supposedly is the owner of Jack's Palace, a tire and automobile accessories establishment from Charleston.

47. Advertisement published in *The Charleston Gazette* (Charleston, West Virginia), May 16, 1930.

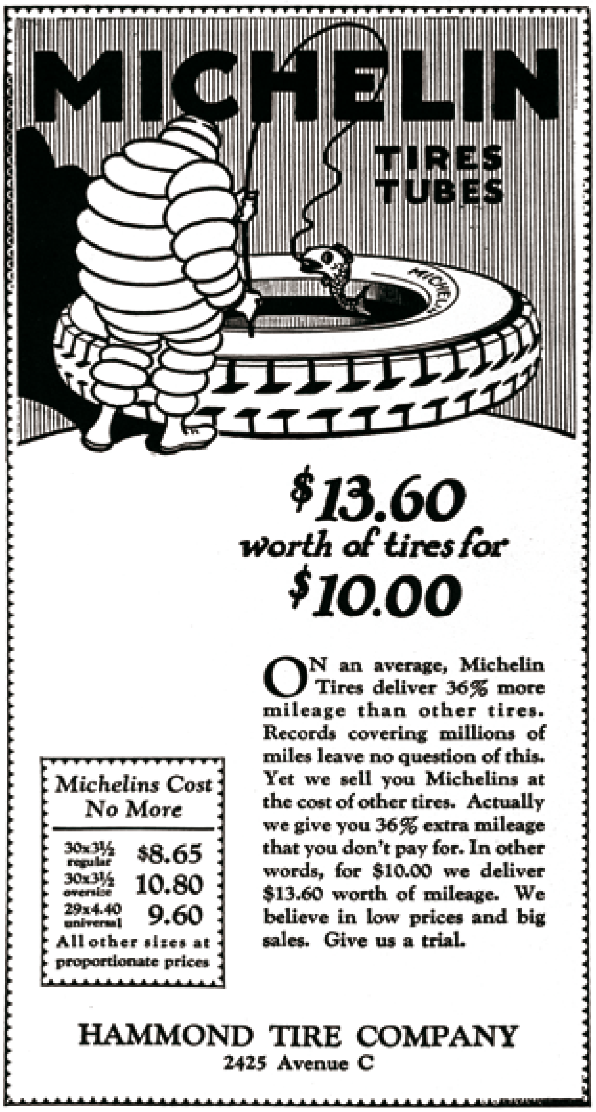
THE BIBENDUM OLYMPICS. Around 1928, Michelin's internal Graphic Arts Studio created a series of illustrations of the mascot Bibendum practicing different sports disciplines and performing balance exercises. In these scenes he is always accompanied by the Michelin Balloon Cord model, in this case having the classic tread known as Universal Tread.

48. Several examples of poster stamps—without any postal value—issued by Michelin for the European market, c. 1928.



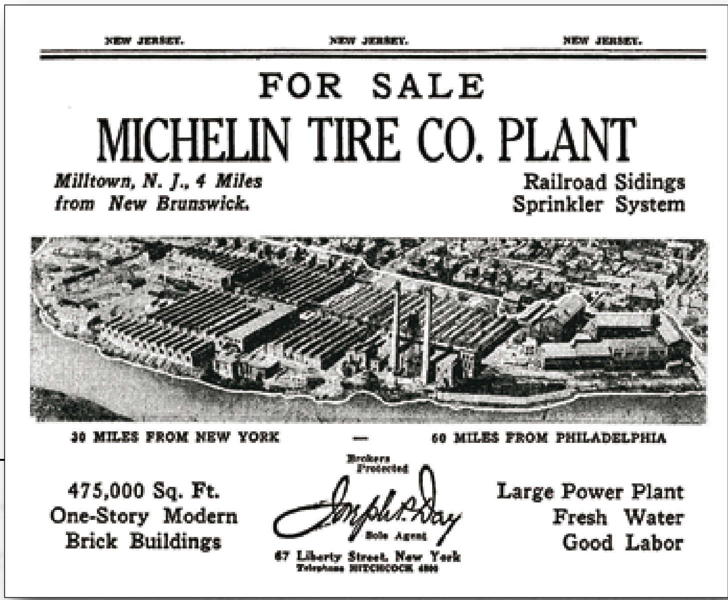
THE MICHELIN STUDIO. In the last two years of Michelin Tire Co. activity in Milltown, their press advertisements employed clichés (printing plates) produced in France by the internal advertising department. They had a very different style from that which characterized the American subsidiary's previous production.

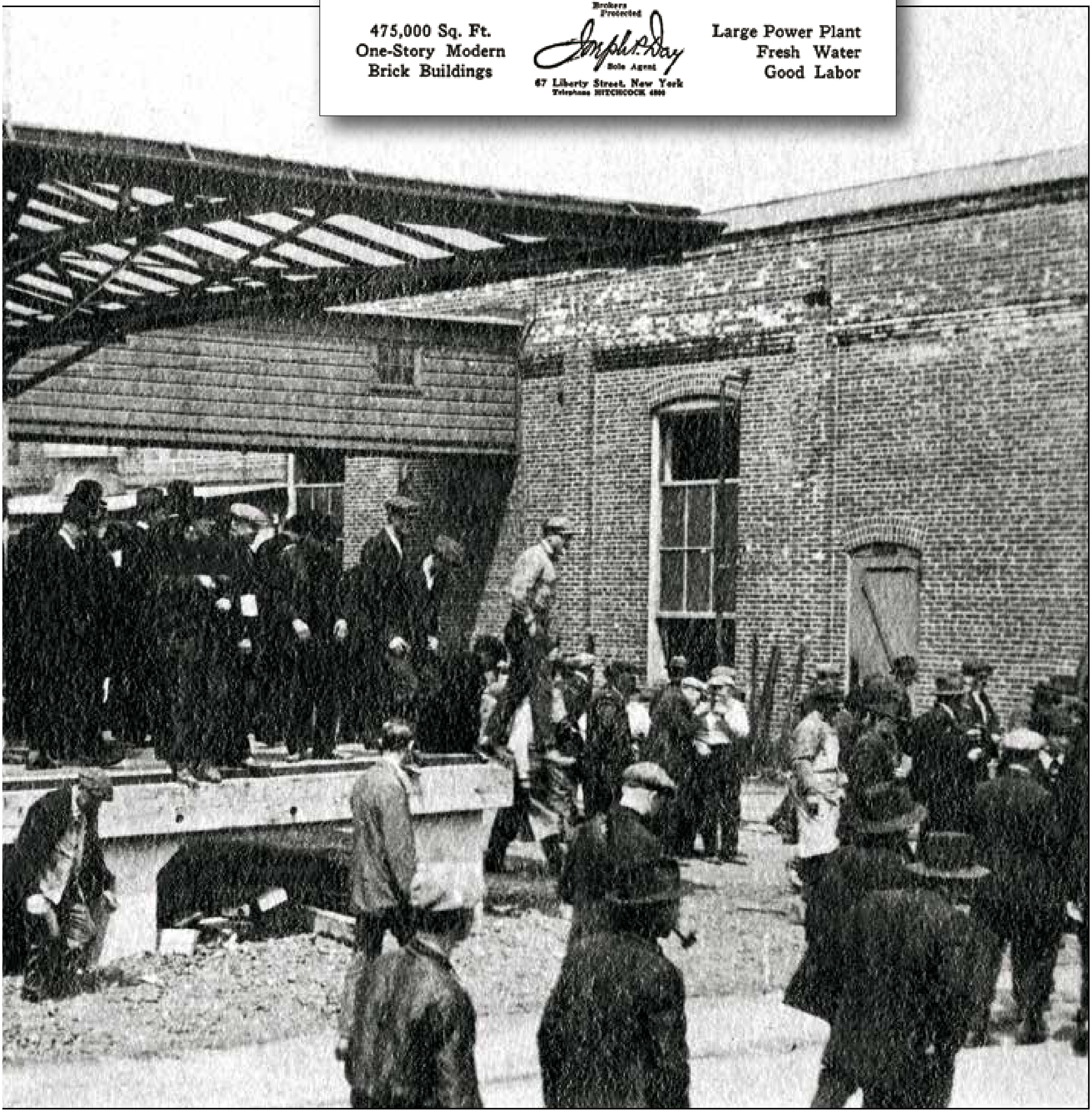
49. Samples and detail of illustrations for modular advertisements used for publicity in American press for different establishments associated to Michelin's commercial network. Original printing plates of the Michelin Studio, 1928.



A BITTER TASTE. The closure of the Milltown factory left most of their staff unemployed, about 700 employees, 300 of whom worked until the moment the activities ceased. During the following months, the sale of infrastructure and land was initiated through advertisements published in the press.

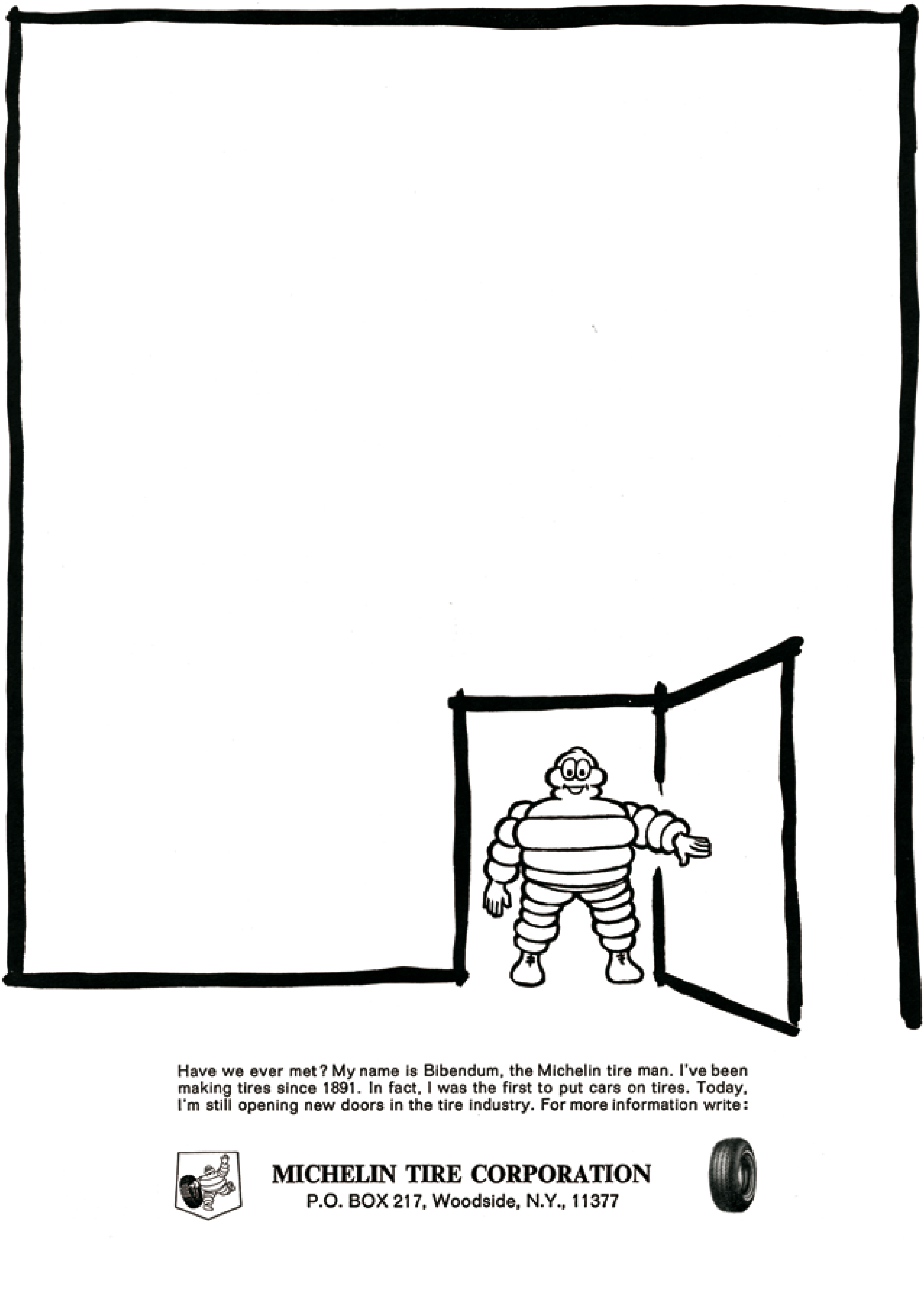
50. Advertisement for the sale of facilities in *Fortune* magazine, 1933.
51. Advertisement for the sale of the industrial complex published in *The New York Times,* October 21, 1931.
52. Photograph of Michelin workers at the Milltown facility who were affected by the situation. c. 1930.


NEW JERSEY. NEW JERSEY. NEW JERSEY.
FOR SALE
MICHELIN TIRE CO. PLANT
Milltown, N. J., 4 Miles from New Brunswick.
Railroad Sidings
Sprinkler System
30 MILES FROM NEW YORK — 60 MILES FROM PHILADELPHIA
475,000 Sq. Ft.
One-Story Modern
Brick Buildings
Brokers Protected
Sole Agent
67 Liberty Street, New York
Large Power Plant
Fresh Water
Good Labor



53. Photograph of the outdoor billboard advertising the sale or rental of the Michelin industrial complex. It was placed alongside the general road network that accessed the town of Milltown, probably the U.S. Rt. 1 highway. c. 1932.


TURN HERE
MILLTOWN
AND HOME



ENTERING THROUGH THE MAIN DOOR. This was the first advertisement for Bibendum's official launch in his second venture as Michelin's corporate and promotional mascot targeting the U.S. market in 1967. The novelty of Michelin's tires with radial technology soon became a benchmark for the automotive industry sector, and the character began to appear again in advertisements.

54. Full-page advertisement published in the American magazine *Time,* May 19, 1967.

A COMEBACK IN THE SPOTLIGHT.
The images here depict two more examples of the campaign launch for Michelin model X radial tires. The return of the mascot to the advertising stage being "acclaimed by consumers" is the metaphorical embodiment of Michelin's reappearance in the competitive U.S. tire market.

55-56. Full-page advertisements in the American magazines *Newsweek,* 1965, and *Time,* June 30, 1967.