

SUGGESTED CITATION:

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The Forgotten Years of Bibendum. Michelin's American Period in Milltown: Design, Illustration and Advertising by Pioneer Tire Companies (1900-1930).

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MICHELIN, THE GREAT WAR AND TIRE COMPANIES

The passing economic crisis of 1907 was a warning cry to Michelin's international expansion efforts: the American subsidiary was the second—after the Italian one, which also had its own factory—and last large venture in this sense. The pre-war climate and the beginning and development of the Great War tested the strength of each of the pillars on which the enterprise from Clermont-Ferrand was based. Across the Atlantic, the Michelin Tire Company in Milltown found themselves in a delicate situation as a result of their own idiosyncrasy.

1. French at heart

Milltown's Michelin Tire Co., although set up as an independent company under U.S. law, was in fact one of the ramifications of the French parent company. Jules Hauvette-Michelin was responsible for day-to-day management, but global and strategic decisions were established and monitored from France, by none other than Edouard Michelin, who was included in the charter as President of the company. In addition, the start-up of the Milltown plant and the production processes involved French employees from Clermont-Ferrand. These were administrative, technical and skilled labor who held positions of responsibility in different sections of the company. The perception that it was a French firm operating on American territory—a perception that in fact had always existed—was especially encouraged. Especially at that time when the prestige of Michelin and of imported European products constituted a guarantee of quality and provided an ideal sales pitch (figs. 1-2).¹

But this same label was an important handicap, both in practical matters and in their being considered as a “foreign firm” by the American government when World War I broke out. On August 1, 1914, Germany declared war on Russia, and France began to mobilize its army against the inevitable—it would declare war two days later. In addition to voluntary enlistment, the military draft recruitment of those meeting the age criteria—between 17 and 42 years old—was carried out. This call to defend the homeland included French citizens scattered throughout the world ... including the Gallic workers of the Michelin company in Milltown.

On the afternoon of Monday, August 3rd, fifty Michelin employees in Milltown received the compulsory draft order, which involved their being transferred during the following days to nearby New York, where a French passenger ship was waiting them.² Single men were the first to depart on August 6, while those with family in Milltown enjoyed a 24-hour special permit. Some women accompanied their husbands on the trip, and were taken in by the parent company in Clermont. Michelin offered them a job at the factory or as caregivers of children whose father had been recruited, as well as providing them with some financial assistance.³

A total of eighty-six French citizens residing in Milltown, including Michelin employees, embarked for their homeland, and on August 26, barely twenty days after leaving their lives in the American town, they were already fighting at the Front. The Michelin workers who had been drafted also invested their last hours in making a transfer of functions to the workmates—American citizens—that replaced to them. Of course, their post would remain reserved for them until their return. Management employees included Stéphane Bridier, director of the sales department, replaced by Mr. Bensen; J. Bougarde, Head of Storage, replaced by Charles Crabiel; L. Gorends, head of the pilot and testing department, replaced by Mr. Mayencon; Mr. de Monteleon, of the credit department, replaced by Mr. Whitley; and Paul Cholet (or Chelot), chemist and President of the Michelin Athletic Association.⁴ Several of the wives of enlisted workers occupied the jobs of their husbands at the factory.⁵

During 1915 Jules Hauvette-Michelin made at least two trips to France—the first between January-February and the second at the end of year⁶—, in all likelihood to meet with the Michelin brothers to report on the conditions in Milltown and receive instructions on the strategy to follow and the measures to be applied during that exceptional period. Europe was fully engrossed in battle, while the United States maintained a disconcerting neutrality despite the pressure and growing anti-German hostility of much of the American public. In an interview with Jules Hauvette-Michelin conducted by the local *New Brunswick Times* a few days after his arrival, he was asked about the situation in his homeland:

“(...) [Mr. Michelin] was inclined to be reticent, for the reason that the Michelin Tire Company of Milltown is an American Institution and consequently Mr. Michelin feels that its officers should remain neutral in their expressions of opinion.”⁷

2. American soldiers

The United States formally entered the conflict with the prior declaration of war proclaimed by President Woodrow Wilson, on April 2, 1917. Two days later the resolution was passed in the Senate, approved on April 6 by the House of Representatives and finally signed by the President that same day. The military enlistment law of May 18 became effective on June 5, the national day for recruiting all men in the country between the ages of 21 and 30, inclusive.

To manage the process, recruitment centers were formed throughout the country. In New Brunswick (including neighboring Milltown) the local draft board included among its members Elmer E. Connolly, a respected and influential local citizen and top manager of the Michelin Tire Co.—to which he was linked from 1914 to 1926—and Elmer Dunham, also a Michelin employee and in charge of the recruiting office. Throughout Middlesex County the total registry was 19,625, and in its capital, New Brunswick, the figures were 4,298 including 1,713 foreigners.⁸ It was customary for each city to place large panels in a prominent place, known as the “Roll of Honor,” listing residents enlisted in the military and serving their country. This was also the case in the town of Milltown (figs. 13).

The early departure of French Michelin workers in 1914 was joined by American citizens in 1917 and 1918, for which—although no specific data are available on this—it is likely that the tire manufacturer's workforce was considerably reduced and the Milltown factory depleted in its productive capacity. However, it is presumed that part of the staff had the company's support in claiming one of the six reasons that guaranteed being exempt from the draft,⁹ especially the one defined as being "indispensable men in the industries necessary for the maintenance of the armed forces."¹⁰

Michelin manufactured different products for the American army, among which stood out the production of gas masks. The elastic, insulating and sealing properties of rubber made it the ideal material for this type of mask. As a press release from the offices of Milltown stated and published in numerous newspapers:

"Michelin also took a leading part in making gas masks both in France and at Milltown. Like other tire factories, we were just getting under full swing at the factory when the war ended, but the officers who examined our masks in competition with the masks manufactured by the other tire companies stated officially that the Michelin mask was superior to any others. They commented particularly on the high quality of workmanship in our mask. At a meeting in Springfield, Mass., where the military representatives from the various tire factories met to study the different masks, it was pronounced by the experts from Washington who presided that our mask was the most perfect mask exhibited."¹¹

The production began in August 1918 and probably counted on the incorporation of female labor to supply the shortage of personnel. It is likely that other items for the army, such as boots and rubber footwear or raincoats and waterproof fabrics for coverings, awnings and tents, were also made on the premises of a small factory separate from the industrial complex and located on Main Street, in front of the large central office buildings.¹² However, there is no record of Michelin receiving orders for tires that were intended for military vehicles.

An enigmatic photograph from 1917-1918 reveals new information about the company's activities linked to the U.S. Army (figs. 15). It shows what appears to be the interior of a Milltown factory production warehouse in which pieces of artillery are stored, operated by a towing vehicle with the inscription "U.S. Naval Gun Factory." Did Michelin assemble naval artillery pieces at the Milltown industrial complex?¹³ The possibility exists that Michelin comprised another one of the companies in the automotive and components sector that participated in the Navy's arms manufacturing business, which centralized the reception, control and commissioning of different articles in the facilities of the Washington headquarters, the Gun Factory of the Washington Navy Yard.¹⁴

In any case, the contribution of the Michelin Tire Company as a supplier of military articles was merely testimonial, negligible, far from being a recipient of the large army contracts. Powerful U.S. firms such as Goodyear, Goodrich or United States Rubber, as well as the rest of the national companies of the sector benefited to a greater or lesser extent from government orders and contracts.

3. The civilian army

The need of economic support for financing the the war led to the creation of numerous government initiatives in the form of campaigns to raise funds from the population, businesses and shops, as well as the different entities and associations of civil society. In this sense, the contribution of Michelin Tire Co.

—the main engine of the community in Milltown—, their workers, managers and Vice President Jules Hauvette-Michelin was noteworthy (figs. 7-8).

An important initiative was the issuance by the United States Treasury of war bonds offered in five distinct periods, spread out between 1917 and 1919.¹⁵ For the subscription of the bonds, territorial committees were created throughout the country in well-known campaigns such as “Liberty Loan,” which received an enormous quantity of propaganda material in the form of posters, outdoor billboards, advertisements, stickers, brooches, postcards or stamps designed by some of the best illustrators and artists of that period.¹⁶ The headquarters of distinct entities made their contribution by allocating spaces for propaganda on their facades, shop windows, showcases and counters (figs. 25-28). Each locality was assigned a minimum quota of sales that was generally surpassed, in a feverish capitalization of patriotism in which a great number of local associations and national organizations participated. In addition to the subscriptions obtained from different establishments and banks, teams of volunteers, Red Cross nurses, Boy Scouts and other institutions were responsible for encouraging door-to-door subscriptions, and included soliciting pedestrians on the streets to participate.

Elmer E. Conolly, Treasurer of the Michelin Tire Co., served as a member of the executive committee in each of the different Liberty Loan campaigns held in New Brunswick except for the second. It was precisely in this second campaign, which began on October 1, 1917, that 91% of Michelin’s employees purchased war bonds, as both individual—priced at \$ 50 each—and in packages of a certain volume. In each division of the factory, posters were placed listing the names of those who had contributed to the cause. Large panels were also placed at the entrance to the premises that indicated the percentage of subscriptions received from each department, a figure calculated in proportion to the number of employees who worked there. The attitude and involvement of the staff more than met the company’s request made by the Vice President and General Manager Jules Hauvette-Michelin through a conference addressed to the heads of each department and by means of a signed document that had been delivered to each worker.¹⁷

Also in the second “Liberty Loan” campaign we find a similar example in the policies promoted by a major firm in the industry—Michelin’s rival who held a higher level ranking—the Fisk Rubber Company of Chicopee Falls, Massachusetts. The company installed a huge panel approximately seven meters long and two meters high with a calendar to list the subscriptions made by employees from their different departments during the seven days of the campaign—starting on Wednesday, October 17 and ending on Wednesday October 24, 1917. Above the lists a clock-marker was placed with a series of increasing numbers up to a limit of \$ 200,000, with the purpose of recording the increases that occurred day by day throughout the initiative ... actually the amount was raised in the first 24 hours. A second watch, with a maximum of \$ 350,000, was installed next to the first one. The patriotic behavior publicly displayed on the panel and in various editions of the corporate magazine during those days spurred rivalry between departments, reaching 5,121 subscribers—97.33 % of Fisk Rubber Co. employees—with purchases valued at a total of \$ 333,200 (fig. 14).¹⁸

4. The third and fourth campaigns

On April 5, 1918 the third issue of war bonds began. A brief news item, probably generated by a press release from the Michelin Tire Co. in Milltown, reported on the success of the campaign among their staff. According to the news report, approximately 93 % of workers signed war bonds and highlighted that among the various sections of the company, there was 100 % employee participation in twenty-two

departments. Likewise, the nineteen delegations distributed throughout the country participated with one or more subscribers, some of whom reached 100 % participation with their employees.¹⁹

In the fourth Liberty Loan campaign that officially commenced on September 28, 1918, the war bonds sold in the small town of Milltown—not counting those of the Michelin Tire Company assigned to New Brunswick—amounted to \$ 63,150, surpassing the established goal of \$ 39,000. The figure for New Brunswick—including the Michelin factory and their workers—was \$ 3,633,100, exceeding the stipulated initial quota of \$ 3,011,600.²⁰

The total collected resulted from the sum of four actions. In the first place, the subscriptions obtained by fundraising teams from local institutions and delegations of national organizations such as the Boy Scouts or groups from the Women’s Committee, worth \$ 1,020,450. Second, subscriptions made by corporations and corporations, with \$ 860,700; and thirdly those made by their employees, with \$ 1,441,950. Finally, bonds sold directly by banks contributed \$ 310,000.

In this fourth campaign we know that about 60 local firms participated, among them the Michelin Tire Co. of Milltown. The contribution could be made in two ways, through the direct contribution of the companies themselves and through the individual contributions of their workers.

As for subscriptions made directly by the management of each company—data are available for 47 entities—the following amounts may be classified: twenty companies with contributions between \$ 1,000-4,000; seventeen companies with contributions between \$ 5,000-10,000; three companies with contributions between \$ 11,000-15,000; five companies with contributions between \$ 25,000-28,000; one company with a contribution of \$ 50,000 and three companies with contributions of \$ 100,000 or more.

With respect to the individual contributions of these companies’ workers, a wide spectrum of figures can be observed—these businesses were of very diverse types and sizes—, ranging between \$ 350 and \$ 800,000. Of note are the first eight on the list of which four are from the rubber industry: the aircraft manufacturer Wright-Martin Aircraft Corp. (\$ 800,000); the pharmaceutical Johnson & Johnson (\$ 287,700), Pennsylvania Railroad Company (\$ 90,100), Michelin Tire Company (\$ 60,000), Neverslip Works, a division of Manufacturers Iron and Steel Co. (\$ 20,400), United States Rubber Co. (\$ 17,000) and Howe Rubber Co. (\$ 15,800).

If we look at the two types of contributions—the businesses themselves and their workers—made by companies in New Brunswick related to the rubber industry, we can establish the following comparative ranking which includes the contribution of the Michelin Tire Co. and their workforce:

1. Johnson & Johnson:

\$ 250,000 in company subscriptions; \$ 287,700 in employee subscriptions.

2. Michelin Tire Company:

\$ 100,000 in company subscriptions; \$ 60,000 in employee subscriptions.²¹

3. United States Rubber + India Rubber Company:

\$ 100,000 in company subscriptions; \$ 37,100 in employee subscriptions
(which includes the \$17,000 that was contributed by India Rubber Co workers).

4. Howe Rubber Company:

\$ 25,000 in company subscriptions; \$ 15,800 in employee subscriptions.

This list is headed by Johnson & Johnson, leader in the healthcare and surgical market (rubber was an essential component in several of their products). They are followed by the tire manufacturer Michelin Tire Co. of Milltown and the India Rubber Co., which produced footwear and other items as a division of the powerful United States Rubber. The Howe Rubber Co. ends the list, which was founded in Newark in 1905 as a manufacturer of air and gas balloons and then established in New Brunswick as a manufacturer of tires and tubes.

Jules Hauvette-Michelin, along with Elmer E. Connolly, was also a member of the 52-member fundraising committee from the Catholic Knights of Columbus fraternal lodge—which both supposedly were members of—and raised \$18,983 in contributions.²² The General Manager of the Michelin Tire Co. also participated in the executive committee responsible for the first fundraising campaign in the Milltown area—along with Mrs. Conrad W. Kulthau—for the local division of the Red Cross, the War Finance Committee of the New Brunswick Chapter American Red Cross.²³

5. Cultivating loyalty

Another measure adopted by Michelin was in line with the nation-wide campaign proposed by the U.S. administration for the control of raw materials, embodied by the approval of the Food and Fuel Control Act—known as the Lever Act—in August 1917. Through the newly created U.S. Food Administration severe measures to control and regulate the production, distribution, export and import, storage, commercialization and consumption of staple foods were implemented. The government agency advocated for a reasonable and rational use of resources, given the scarcity of food that the military mobilization of the population from agricultural and cattle-raising areas and the abandoning of farming and livestock holdings had caused in allied countries, as well as the American army's own needs.

Following one of the slogans created by the U.S. Food Administration's propaganda division, "Food is ammunition, do not waste it" or "Food will win the war" and appealing to the spirit of sacrifice during difficult times, the government promoted the creation of self-consumption orchards. These were known as the so-called 'victory gardens' or 'war gardens', public and private land and gardens reconverted into fields for cultivating vegetables. According to a report in June 1917, about 90 per cent of rubber factories and businesses in the sector set up land for cultivation by their workers, such as the Goodyear Tire & Rubber Co. in Akron, with more than 100 hectares designated for growing corn, wheat, potatoes, green beans, legumes, etc. The Pennsylvania Rubber Co. in Jeannette had 24 hectares of plowed and planted land next to the factory, divided into individual plots.²⁴ Another example was the Firestone Tire & Rubber Co. in Akron, which facilitated seeds and a 28-hectare plot adjacent to the factory containing 350 vegetable gardens—divided into plots of 30 x 60 meters—for their employees.²⁵

In order to develop this and other measures and to ensure compliance, a corresponding government delegation was set up in the town hall of Milltown, run by Robert E. Ross.²⁶ The Michelin company had launched a similar initiative a few months earlier, in May, when an extended field adjacent to the factory was made available to employees for cultivating. A piece of land was awarded to any company worker that requested it, and could be cultivated as intensively as they wished. The land was plowed, irrigation systems were set up and special prizes were created for the best crops.²⁷

Another way of increasing the morale and well-being of the workforce was to raise wages. Given the context of a lack of skilled labor, and faced with competition and the demands of other industries in the

sector, it was prudent to reward and encourage employee loyalty and commitment. According to a press report published in November 1917:

“In line with the general policy of the Michelin company to take good care of its employees, and in recognition of the increased cost of living, the President of the company recently declared an unsolicited advance in wages throughout the plant. This was the fourth such unsolicited increase made within the last eight months. The clerical staff of the company were also remembered by substantial increases in salaries.”²⁸

In this context it is also possible to understand the protectionist measures taken by the company after the end of the war. In May 1919 Jules Hauvette-Michelin returned from a recent trip to France, supposedly to receive direct instructions from the Michelin brothers on policies to implement.²⁹ Between June and July 1919 Michelin launched an ambitious life insurance scheme with complete coverage and entirely free of charge for Milltown factory employees and commercial delegations in recognition of the loyalty and patriotism shown by staff and those called upon to fight during the war years. The amounts were proportionally allocated according to the seniority of the worker, who had been working with the company for a minimum of six months.³⁰

6. Back to normal

The end of World War I in November 1918 led to the return of soldiers to France, their gradual incorporation into civilian life, and a labor market that was overwhelmed by supply. This provoked a new wave of emigration of French workers who embarked on the transatlantic voyage in search of opportunity, some of which presumably had Milltown as their destination.³¹ In addition, the men who had settled in the small town of New Jersey began their return home: amongst the 86 French soldiers who left in 1914 to defend their homeland—50 of which were Michelin workers—66 returned alive and 18 of them fell in combat. As for the Michelin factory employees, not all came back alive, and others were distinguished for their merits during the war: Stéphane Bridier, sales director, received the “Legion of Honor” award, and chemist P. Cholet was awarded the “Croix de Guerre.”³²

The reception of war heroes took place during a large parade held in their honor on Saturday, June 28, 1919 in New Brunswick. The streets were decorated with flags representing America and the Allied forces, as well as banners with the text “Welcome Home.” The windows and balconies of houses were decorated as well as the facades of different commercial establishments located on both sides of the street marking the parade route, which was closed off as the procession passed.

Around 800 licensed soldiers marched in the parade, commanded by General William Weigel and other military leaders, as well as representations of Allied forces such as British and Canadian soldiers. The veterans of the French army presented a delegation of fifty men who “under Capt. Cholet and bearing French and American flags received a tremendous ovation wherever they passed” (figs. 16). Also participating in the parade were organizations such as the American Red Cross and the Salvation Army, as well as civil associations of all kinds. Among the representation of educational institutions was the delegation of École Française de Milltown, with about eighty children dressed in colorful regional costumes depicting different French provinces.³³

The Milltown community offered its own “Welcome Home Day” to the soldiers, with a series of festive events in their honor that took place between 2 pm and midnight on Saturday, September 27, 1919.

Among the activities of the program was a baseball game between the Michelin team and the Philadelphia Colored Giants, as well as concerts and a large dance party (figs. 17).³⁴

The patriotic allegiance and active participation of the Michelin Tire Company in various initiatives to support the U.S. government and their campaigns—in addition to the number of French combatants, those who gave their lives and the ones decorated with honors—were all used in the firm’s promotional actions. Other companies in the sector conducted similar activities, setting off a fierce—and not so appropriate—ranking of merits. In the particular case of Michelin in Milltown, the contributions shown were figures that grouped the individual effort of the distinct foreign subsidiaries added together with that of the French parent company. Thus, a news article published in different newspapers—without a doubt derived from a press release issued by Michelin—in February 1919 states:

“No company in the whole American automobile industry has better reason to be proud of its contribution to the victory of the allied armies than the Michelin Tire company of Milltown, N. J. ” “(...) The other day one of the big Akron tire companies sent a newspaper notice all over the country to the effect that 5800 of their employees were called to the colors, and that of these, eight had been killed in action. Called to the colors may mean one thing and may mean another, but our company had 3333 men actually fighting in the war, not for a few months, but for four solid years, and 511 of these died heroically in defense of the allied cause. This is too sacred a matter to boast about, though we might as well give the facts in Justice to our company and its brave men.”³⁵

7. The situation of Michelin in France

The state of emergency following the declaration of war between France and Germany had a special impact on the rubber industry. In a first phase, it triggered the paralysis of all production as the French government took control of the situation and the inventory of the army’s needs, such as the management of raw materials. This included the reserves and supply of rubber and coal that fed the power plants, rail traffic and the private vehicle fleet. In addition, the process of recruiting workers for the military left factories with no staff to assume production. During the first month about 40 % of workers were mobilized only in the rubber industry, including 2,000 Michelin employees and more than 600 of their competitor Établissements Bergougnan in Clermont.

As of August 1914, the National Defense reached a series of agreements with different companies to ensure the supply of solid rubber and pneumatic tires—and their replacement—for the army’s vehicles. As a trade-off, in addition to the agreed price, the demobilization of necessary personnel, access to raw materials and authorization to resume commercial exports to allied countries were allowed (figs. 107). In the case of Michelin, this allowed “the resumption of sales to individuals in the domestic market and the re-supply of their foreign agents.”³⁶

In any case, the manufacturer that most benefited from army commissions was **Bergougnan**, who before the war had already equipped—an estimated 65-70 %—many of the trucks and trailers carrying artillery components for the armed forces.³⁷ This type of heavy-duty transport needed solid rubber tires, a product for which Bergougnan had little competition in the Gallic market as Michelin traditionally had specialized in pneumatic tire technology (figs. 208-213). The American branch of Bergougnan also took advantage of the situation to appeal to ties of sympathy between the United States and France, making constant use of warlike images for advertisements inserted in American magazines (figs. 214-220).

Michelin tires produced under government contracts were limited to other types of vehicles such as cars, motorcycles, light trucks and vans, of which they provided around 70-80 % of the needed supplies. But the situation changed in 1917 and 1918, when the company's adaptability found a way to diversify their production and monopoly of up to 50 % of government commissions when the manufacturing of aircrafts began, which started in 1915. Thus, the company began producing artillery shells, aviation bombs, gas masks and other items, also ensuring the constant supply of raw materials that allowed them to maintain production for civilian purposes.³⁸

Moulin-Bourret (1997, p. 302) proposes the hypothesis that the existence of Michelin's American subsidiary in Milltown might have made it easier for the French parent company to receive commissions for manufacturing aircrafts for the U.S. military. In the autumn of 1917 Michelin hosted one hundred American pilots, sent there to be trained in handling the Breguet-Michelin XIV B2 model—of which the company manufactured 147 units—as well as handling their armament—Michelin also produced 27,700 bombs for these aircrafts.³⁹ Production of the Breguet-Michelin aircraft rose to 1,884, representing 4 % of the total number of aircrafts manufactured by different French companies during the war.

Torrilhon, also based in Clermont-Ferrand, had a modest participation with pneumatic and solid rubber tires for trucks or fabrics for balloons. The different French companies, in accordance with their capacities, collaborated with the military industry in their distinct traditional specialties. Or they reoriented their production towards the construction of arms or of vehicles and their components as well as towards applying the properties of rubber to impermeable articles such as footwear, clothing, awnings or tents.

The **Hutchinson** company entered the conflict with productive infrastructure and solid financial reserves, despite the fact that early on, the German authorities confiscated the Mannheim factory and the Hutchinson branch in Brussels. The branch in Milan, on the other hand, was working at full capacity for the Italian army. Their French factory in Langlée became involved after a period of ceasing activities, thanks to agreements with the army that—as in the case of Michelin—allowed them to satisfy the demand of the domestic civil market. Important war products produced at the Hutchinson facility included gas masks—also made by other firms, such as Michelin—, solid rubber tires for truck, artillery guns and other products for the air force—in which the company was a pioneer prior to the war—such as zeppelins and hot air balloons or pneumatic tires for aircraft landing gear (figs. 224-227).

8. The border with Belgium

After the declaration of war, the factories and commercial delegations of tire manufacturers on respective sides of the conflict established in enemy territory were confiscated and lost their rights. These measures included properties, infrastructure, deposits of raw materials and stored products and the annulment of industrial patents granted in each country. Such was the case, for example, of Michelin's German delegation, the Deutsche Michelin-Pneumatik-Aktiengesellschaft, legally established in December 1906 and headquartered in the city of Frankfurt.

The rubber factories established on invaded territories located in Belgium and the north of France were a priority objective for the German army. Belgium was one of the main European importers of natural rubber and had an important industry in the sector that was highly diversified, with factories historically established in a strip of French territory adjoining the border between the two countries. Among those who offered tires in their catalogs were companies such as Colonial Rubber, founded in 1891 and

manufacturer of Colonial tires in Prouvy-Thiant and in Levallois-Perret; Jenatzy-Leleux, tire manufacturer of the Jenatzy model in Brussels; A. Michel-Jackson, founded in 1890 and manufacturer of Le Centaure tires in Haullin and Menin; as well as the potent local firm Englebert, founded in 1877 and with a factory in Liege. Most of these facilities were looted and dismantled by German military forces, if not completely destroyed, which was the case of Englebert's factory. This also occurred with the two factories of the French tire and air-conditioning company A. Wolver—created in 1896 by Antoine Mathias Wolber—located in Wailly and Soissons, the latter having been opened only a few months before the start of the conflict.⁴⁰

On the other side, the German-owned factory which the subsidiary Continental Caoutchouc & Gutta-Percha Compagnie operated in Clinchy since 1910 was confiscated at the end of 1914 by the French authorities and shut down.⁴¹ The same situation happened with the rest of the German and Austro-Hungarian businesses that had previously operated from their headquarters in French territory, such as the tire manufacturer Peter's Union.⁴²

Two other foreign companies on the Allied side collaborated with the French government in supplying the troops. The Compagnie Francaise des Pneumatiques Dunlop in Argenteuil, which had been closed for a few months, was in operation at the beginning of 1916, dedicated entirely to the manufacture of ammunition and projectiles.⁴³ The American subsidiary BF Goodrich, with their factory in the town of Colombes, before the war was producing tires for the civilian market, but had maintained a contract with the French Army to equip trucks since 1912. At the outset of the war the production department for solid rubber tires—staffed with eighty qualified men who were exempt from recruitment—came under military control, and both factory production and the stock accumulated in Paris warehouses were requisitioned by the government.⁴⁴

9. Michelin tires ... German?

If Michelin and other firms such as Bergougnan supplied the French army with pneumatic and solid rubber tires, the same occurred with the main manufacturers of German tires and their government, notably the Continental Caoutchouc und Gutta-Percha Co. in Hannover or the Gummiwerke "Excelsior" AG of Hannover, located in Linden. Michelin's international exports—and of course those destined for German and Austrian markets—were interrupted with the onset of the Great War and only resumed after ensuring that control mechanisms and traceability to the tires' final destination were in place.

In this regard, the company's efforts are reflected in the French Ministère de la Guerre's dossier entitled *Dossier confidentiel indiquant les précautions prises par la société Michelin et Cie. dans tous les pays pour éviter que les produits Michelin aillent dans les pays ennemis*. Numerous provisions were established to prevent Michelin's commercial agents in neutral areas from providing supplies to the German army. For example, those wishing to commercialize Michelin tires in the Netherlands were first required to pay a \$1,000-1,400 security deposit as a guarantee of loyalty. Among other issues, a report detailed the intervention in October 1914 on the Lathouwers authorized dealership located in Bois-le-Duc, the Netherlands. Through the delegation of the Société Anonyme Belge du Pneumatique Michelin, a merchant placed an order of a considerable size, justifying it as intended for the Dutch navy. After an investigation the operation was canceled, as it was found that the cargo was actually destined to be delivered to the German army.⁴⁵

In one way or another—whether by fraudulent business practices, taking advantage of truck and car tires seized from allied troops as well as the confiscation of Michelin deposits in invaded territories, or for other reasons—it seems that the tires of the French firm equipped some military vehicles belonging to enemy forces. This was described by an American magazine specializing in the motor sector in a news item published in February 1919:

“(…) It is interesting to note that the German army employed ‘Continental’ and ‘Oberspree’ tires almost exclusively. A certain number of Michelin tires were in use until 1917. It is not known whether these were requisitioned in the invaded districts of France or whether they were made in moulds stolen in France. In any case, the fact that these tires were available until 1917 indicates that rigid economy [restrictions on production and lack of raw materials in Germany] was effected in their use.”⁴⁶

This presence of Michelin tires on German vehicles—an affront to the company—was also reflected in an astonishing 1916 advertisement published in the state of Iowa’s newspaper *Des Moines Register*, paid for by an exclusive Michelin distributor. In an advertisement that was clearly differentiated from the American subsidiary’s corporate advertising—and which was surely issued without their approval—the Hippee Motor Supply Co. dealership in Des Moines, Iowa used the image of Bibendum to depict an unusual scenario which evidenced the neutrality in the conflict of the United States ... and of the Michelin Tire Company in Milltown (figs. 11-12).

The pneumatic mascot, at the center of the illustration, advocated an end to hostilities by brandishing his neutrality as he headed towards a circle of six different armored vehicles, all of them equipped with Michelin’s Universal Tread model. These war vehicles had the name of the belligerent nations written on them—Germany, Austria, Russia, Italy, France, and England—and were driven by popular patriotic figures recognizable by their garments. The British John Bull exclaimed: “General Sherman said ‘War is hell’, but I say that the war is hell on wheels plus 100%,” to which the German pilot replied: “Yes, John, I agree with you. But think how much worse it would be without Michelin casings. I actually believe the set I use on my car is bomb-proof.”

It is likely that this advertisement and the frivolousness about the grueling war in which Michelin’s native homeland was immersed—in addition to recklessly showing the enemy using French tires—made a strong impact on those in charge of the Michelin Tire Co. in Milltown.

10. The American Rubber Industry in the Great War

U.S. manufacturers in the rubber sector and their staff, along with the rest of the industries, put their facilities and productive capacity at the service of authorities. Within the War Industries Board—the entity controlling American industry in times of war—the Government created a specific division that managed the war effort of the rubber industries, overseeing their needs, initiatives and contributions. The War Service Committee of the Rubber Industry of the U.S.A. operated fifteen separate sections,⁴⁷ including the departments of solid rubber and pneumatic tires, the Solid Tires Division and the Pneumatic Tires Division. The entity was managed by Harry Thatcher Dunn, President of the Fisk Rubber and Federal Rubber companies, both being tire manufacturers. Among the six members of his advisory team were James C. Matlack,⁴⁸ former director of the Michelin Tire Co. in Milltown during 1907-1909.

It is unknown to what extent the prior relationship between Matlack and Jules Hauvette-Michelin, who had taken over his former post since 1910, may have influenced the assignment of military contracts to produce military articles.⁴⁹

One of the key issues affecting the American rubber industry, which accounted for about 50 percent of crude rubber worldwide, was the blockades imposed on producers in strategic eastern territories controlled by the British government. In November 1914, Britain declared the rubber embargo to prevent any shipment of raw material or manufactured goods to the enemy, bearing in mind that American companies, who maintained neutrality in the conflict, continued to trade with both sides indistinctly. It was not until January 1915 that the resumption of imports was agreed upon after the firm commitment of the United States Government to avoid trading with Germany and their allies (figs. 111-112).

At the beginning of June 1917, the recruitment of men being of military service age began, and different companies proposed measures to protect the jobs of those who were drafted. Goodyear Tire & Rubber, for example, announced that all mobilized employees would regain their positions on their return. The United States Rubber Co. confirmed that their absence would not interrupt the contribution to pension plans servicing the workers. Or the case of the Dryden Rubber Co. in Chicago, who offered to pay enlisted employees the resulting difference between the low salary the army provided and the salary they would have received in their job. Female workers accessed vacant jobs and met the new production needs created during the conflict.⁵⁰

Firms within the rubber sector also offered to implement instruction and military training as yet another activity that was provided to factory workers, as well as to make various infrastructures available to the administration. United States Rubber ceded a portion of their downtown commercial and exhibition space on Broadway for use as a recruiting office. Employees of the Fisk Rubber Co. in Chicopee Falls, Massachusetts, offered the large sports stadium for mobilization tasks.⁵¹

Through the internal corporate magazines of different companies in the tire sector—an instrument of direct communication between management and workers—the task of raising awareness of the war time situation was carried out, as well as important campaigns encouraging subscriptions to war bonds and fundraising to help institutions such as the Red Cross. It was customary in these publications to assign several pages featuring the company employees who had enlisted, dedicating special coverage to their situation on the front and their experiences, as well as offering informational profiles in homage to the heroes and the fallen ones in combat (fig. 61).⁵²

Government control over industry and restrictions were accentuated in 1918. Imports of rubber and automobile manufacturing—in which steel consumption declined—were reduced to 50 % from the previous year's levels; fuel was also rationed. As for the production of solid rubber and pneumatic tires, which was also affected by 50 % during the second half of the year, manufacturing was reduced to strictly necessary measures, interrupting the production of certain products and focusing on the standardization between manufacturers.⁵³ War time economics meant that contracts with the government constituted a priority option so as to obtain raw materials and to continue production to some extent for the internal civilian market.⁵⁴

11. United Manufacturers of America.

The firms most favored for U.S. military orders were the American market leaders known as the “Big Four”: United States Rubber, Goodyear, Firestone and Goodrich. The first two focused their businesses in the area of solid rubber and pneumatic tires, while the other two historically provided a great diversity of manufactured products derived from rubber. It is not surprising, then, that Goodyear and Firestone received the major contracts to equip military vehicles and trucks with solid rubber tires. Other medium-sized companies such as Fisk, Swinehart, Hood, Kelly-Springfield, Republic, Star, Ajax, General, Empire or Sterling, among others, also participated with their solid rubber and pneumatic tires, although in a much smaller proportion than the four dominating companies (figs. 29-30, 65-96).

Moreover, three of the leading companies, Goodrich, Goodyear and U.S. Rubber had preferred status with the Gas Defense Service. They were awarded the largest contracts for the development and manufacture of gas masks and their components—goggles, glasses, belts, filters, tubes and pleats—which, in part, used rubber. Firestone followed suit, but on a smaller scale, as did other smaller tire manufacturers such as Fisk, Pennsylvania Rubber, Miller Rubber, Faultless Rubber, Federal and Michelin Tire in Milltown. The workforce in the vast majority of factories consisted of female workers.⁵⁵

A number of small and medium American manufacturers, in times of neutrality, also initiated negotiations with European governments involved in the war. Two news items from November 1915 tell us that Arthur W. Savage, President of the Savage Tire Company in San Diego, California, traveled to the frontline to engage in negotiations with Allied armies and to offer the patented technology used in their pneumatic steel tires. The invention of Arthur Savage addressed the need to adequately protect the inner tube, for which he developed a cover lined with small pieces of steel juxtaposed and united with joints or articulated hinges, forming a protective mesh that had an aspect similar to armored Armadillo skin. After numerous and convincing demonstrations, Arthur Savage was commissioned by the British War Office to equip transport vehicles as well as by the British Admiralty and the French Government to equip transport vehicles and military ambulances.⁵⁶

United States Rubber began their participation in the Great War in 1914 from a neutral and strictly commercial position, responding—along with other American and Canadian manufacturers—to the British and French orders to equip their troops with rubber footwear. With the entry of the United States into the war, U.S. Rubber received orders for all types of military equipment: solid rubber and pneumatic tires, inner tubes, rubber footwear, waterproofed fabrics and awnings, sanitary items, cables with insulating coatings or gas masks (figs. 31-56).⁵⁷

Goodyear, the second company in the pre-war commercial ranking of tire manufacturers after U.S. Rubber, also contributed and did so particularly in two aspects: in solid rubber and pneumatic tires for motorized transportation and as the largest military supplier in aeronautical military apparatus. During the war they produced around 1,000 balloons of different models and 60 airships (blimps), destined for operations in aerial reconnaissance and observation and for anti-submarine combat. They also manufactured a large number of mechanical rubber parts, aircraft tires, 715,000 gas masks and 4,750,000 of related components, of which valves predominated (figs. 63-64).⁵⁸

Firestone played a prominent role as a supplier of solid rubber and pneumatic tires to the armed forces. In addition to solid rubber tires, pneumatic tires and inner tubes, the company provided seventy-five percent of the steel bases required for equipping motorized artillery tires, and a third of the tires utilized. They also participated in the manufacture of aerostatic observation balloons, gas mask components,

glues and rubber cement in addition to a wide variety of products and accessories, such as a small production of rubber footwear.⁵⁹

Goodrich was commissioned to manufacture airships, since in the years prior to the war they had supplied the military with rubber-treated fabrics for the fuselage of these devices. They produced eleven large airships and 362 observation balloons to support artillery destined for use on the European front. In addition to thousands of gas masks, “the company manufactured during 1917 and 1918 rigid rubber casings for tank and submarine batteries, millions of units of rubber tubes for sanitary use, hundreds of thousands of meters of hoses, around 50,000 raincoats, 800,000 pairs of waterproof boots, and thousands of tires for airplanes, cars, trucks and bicycles” (figs. 97-109).⁶⁰

On the night of January 16, 1919, a dinner celebrating the nineteenth anniversary of the Rubber Association of America—of which the Michelin Tire Co. was a member—was held at the Hotel Waldorf-Astoria, baptized with the name the “Victory Banquet.” A total of 850 male diners, consisting of association members and guests, sat at large tables in a room profusely decorated with patriotic symbols such as emblems, garlands, banners from Allied forces and the Army and Navy, all presided over by a large American flag. The event, enlivened by an orchestra, later included speeches and a variety show of vaudeville numbers that the female guests could also enjoy, who were accommodated for these acts on the side balconies. The event was attended by all the important figures in the rubber industry and tire manufacturing companies ... including Jules Hauvette-Michelin and James C. Matlack.⁶¹

12. Crossing the English Channel

Britain’s entry into the conflict came when it declared war on Germany on August 4, 1914, the day after France’s declaration. The country’s pre-war commercial scene was characterized by the absence of tariffs on tire imports since 1904, and as a result, French, German and American firms had established representative agencies supplying the British market with their products. Thus, brands like Michelin, Bergougnan, Goodrich, Firestone or Continental had no obstacles when competing with local companies.

In the case of Michelin and Bergougnan, the start of the war also meant the cessation of foreign operations decreed by the French government. But the agreements reached in September and October to secure the supply necessary to meet the needs of the French armed forces also included as a trade-off, conditions for the resumption of exports to allied and neutral countries such as Great Britain (figs. 111-112, 115 and 117). This avoided shortages and the closure of distribution agencies abroad, which would have caused the painful loss of market shares obtained with much effort during the previous years. In addition, interest groups formed by French tire manufacturers, with Michelin at the lead, achieved protectionist measures from their government to maintain the domestic market. As such, for much of the war “the French market, protected by legal measures, was practically closed to foreign manufacturers, who had to request special authorizations for their importation.”⁶²

The London-based Michelin Tyre Co. was a key agency for the French firm’s international operations. London’s financial market with its commercial shipping fleet and British ports had a leading role in the importation of rubber and raw materials from the territories and colonies controlled by the government of Great Britain. In the profitable but fluctuating market of replacement tires, the turnover of Michelin’s subsidiary at the dawn of the war was comparable to that of their direct rival Dunlop. Nevertheless, the latter led by a wide margin in the sector of original equipment direct from the factory. The rest of the market was distributed among the importing subsidiaries of American firms—Goodrich, Goodyear

Tyre & Rubber Co. Gt. Britain Ltd. (organized in 1912), Firestone Tyre & Rubber Co. Ltd. (1914)—; a number of autochthonous companies such as North British Rubber, Palmer, Avon, Moseley and Bel-dam; and several foreign firms such as the Italian Pirelli (officially present since 1909), Continental and Peter's Union from Germany, the Russian Prowodnik or the French Bergougnan.⁶³

This cohabitation between autochthonous and foreign firms having increasing clout, such as Michelin and the burgeoning American brands, was not easy. The situation was prompted by the fact that foreign tires entering Britain were free of customs duties, contrary to the usual protectionist charges established in most countries. In September 1915, the tariff decree popularly known as “McKenna duties” was launched, which sought to stop the importation of luxury goods and protect the autochthonous market at a rate of 33 $\frac{1}{3}$ % *ad valorem*. The automobile and all its components were included in that category, with only one exception ... automobile tires. Perhaps the reason for this was the urgent need for tires that, in times of war, could not be satisfied by the limited productivity of British companies themselves.⁶⁴ This situation remained unchanged until 1927, despite constant pressures exercised by the British Tire Manufacturers Association to remedy the issue.⁶⁵

13. British pride

The constant and massive barrage of foreign tires arriving in Britain to cover the war requirements—and eventually invading the civilian market—alerted local manufacturers. The safeguarding of the market itself was transformed into a genuine battle to raise awareness about protectionist issues. Campaigns encouraging a patriotic spirit and the rejection of imports exposed the negative repercussion that this situation generated in the national economy. The leading British firms issued provocative press advertisements, criticizing America's exasperating neutrality in the conflict and the aggressive export trade policy practiced by U.S. companies, which took advantage of the weakness and needs of others in times of war. The autochthonous manufacturers, each one according to their possibilities, actively participated in equipping the British military.

Dunlop worked at full capacity during the war for one of the ten departments in which the Ministry of Munitions of the British government was divided, making solid rubber and pneumatic tires as well as other articles such as tires for airplanes—already present in the 1911-1912 catalog—, tanks and armored cars. In 1916 their productive capacity multiplied with the inauguration of the modern factory at Fort Dunlop, built on the outskirts of Birmingham (figs. 155-159).

North British Rubber, the Scottish firm with a factory at Castle Mills, Edinburgh, manufactured military equipment both for offensive and defensive purposes. Prior to the declaration of war, the company maintained commercial ties with Germany, especially with Hannover Continental. This enabled them to acquire the necessary technical knowledge in the treatment of fabrics and sheets intended for the manufacture of aerostatic devices for the British and Allied armed forces. The first orders for balloons arrived in 1915 and counted on the participation of another company from the same town, the Victoria Rubber Co. Other types of material manufactured by the North British Rubber during the war included footwear—1,185,036 pairs of waterproof boots, 70,000 pairs of boots and shoes, and 47,000 pairs of snow boots commissioned by the French Government—, gas masks and their complements, hoses, mechanical parts of all types and fabrics as well as impermeable bags and covers. Of course, pneumatic and solid rubber tires for motor vehicles were also manufactured—48,305 covers and 16,103 tires—as well as for motorcycles. In addition, existing machinery was adapted to produce ammunition and bombs (figs. 168-180).⁶⁶ A company advertisement published December 1914 in the British magazine

The Graphic (fig. 169) explained that out of a workforce of 5,000 employees, 500 had enlisted, and the rest, working from the factories, actively contributed by manufacturing the government's military orders.

The Avon India Rubber of Melksham in Wiltshire county, was on the limited list of the most important British rubber industries. During the first year of the conflict, about 300 of their workers voluntarily enlisted, increasing to 566 employees who served in the military throughout the war. Controlled by the Ministry of Munitions since September 1915, their solid rubber and pneumatic tires—the latter produced since 1901—equipped all kinds of military vehicles from bicycles and motorcycles to cars, trucks, tanks, ambulances, cannon trailers and artillery pieces. They also produced rubber parts and articles such as hoses, tubes or various types of ammunition (figs. 160 and 162-164).⁶⁷

Other firms involved in the war effort were **Palmer Tyre**⁶⁸—one of the divisions of India Rubber's diversified production, Gutta Percha and Telegraph Works Company of Silvertown, London—and, among others of less importance, the **Henley Co.** (fig. 181), the **Beldam Tyre Co.** in Brentford (fig. 182), the **Wood-Milne Co.** (fig. 183) or **David Moseley & Sons** from Ardwick, Manchester (figs. 165-167).

14. The situation in Italy

The tires distributed on the British market by the Michelin Tire Co. came in part from the Les Carmes factory in Clermont-Ferrand and also from the Turin factory, especially in the months leading up to Italy's entry into the conflict, declaring war on Germany in May 1915.⁶⁹ Historically, from the outset, most of the Italian subsidiary's production was destined to supply foreign markets: between 1907 and 1926, 25% of total production met domestic market demand, while on average, exports exceeded 75% except for the years between 1916 and 1921, being the war period and the crisis of 1921. Concretely in 1914, 12-14% of the Italian Michelin's production met the needs of domestic consumption while the remaining 88-86% was devoted to exports.⁷⁰ The usual foreign markets served by Italian Michelin production in the years prior to the war were, in order of importance: Belgium, Switzerland, Great Britain, Germany, Argentina and Austria. In 1916, Michelin equipped 70% of the French army trucks and vans used on the front and 40% of the trucks in England, while their transalpine facilities had contracts with the Italian government to supply military vehicles, although Pirelli was their main provider.⁷¹

Pirelli equipped most of the Fiat cars produced in Turin with solid rubber tires: about 500 cars were supplied to English and French troops in 1914 while Italy remained neutral and a total of 50,000 vehicles—30,000 for Italian forces, 15,000 French and 5,000 divided between the American, English and Portuguese allied armies—were dispatched between January 1915 and the end of 1918.⁷² Bergougnan, Michelin's competitor in Clermont-Ferrand, also received orders from the Italian government. In the spring of 1916 the Société des Etablissements Bergougnan was busy filling the order of 25,000 solid rubber tires at the rate of about 900 units a day.⁷³

The Société Française BF Goodrich—the French subsidiary of the American company, with a factory in Colombes, Paris and operative since 1911—also participated in the war orders for the transalpine forces. At the start of the war, Goodrich established a delegation in Turin near Fiat's facilities, to supply solid rubber tires for Italian vehicles.⁷⁴

Before the war began, Fiat's facilities in Turin had about 2,000 staff. Subsequently, the workforce increased by 2,200 employees, which was linked to the growing demand in production and achieved by incorporating large numbers of female labor, in part to cover for the enlisted men. In the case of

Michelin's Italian subsidiary, the number of personnel mobilized for battle amounted to one thousand, between 950 Italians and 50 French men. After signing the armistice and during the first years of 1920, the number of workers reached 2,400, 45 of them being French.

On Sunday, June 15, 1924, a multitudinous tribute to those killed in combat during the Great War was held on the premises of the Michelin industrial complex in Turin. The event, centering on the unveiling of an honorary monument, was attended by employees, associations of former soldiers, top representatives of institutions and the civil, military and ecclesiastical society as well as a delegation of the French administration and Michelin's parent company in Clermont-Ferrand. The name of each of the fallen—a total of 63, including 54 Italians and 9 French men—was inscribed in it, accompanying a bronze female figure in high relief, allegory to the virtue of sacrifice. A plaque flanked by the shields of France and Italy lay at her feet with the epigraph: "To the prodigal sons of the same lineage, united in labor and at arms, fallen in defense of the Fatherland's ideal." This reinforced the twinning between the two nations that housed Michelin's two European factories.⁷⁵

15. The fertile battlefields

Prior to the war, the promotion of tourism on wheels had been one of the pillars of Michelin et Cie. By facilitating road transport and assisting the motorist during the journey, the identification between the trip, the driver and their vehicle and the company's tires was established. The Michelin Red Guide—provided free of charge for the first edition in 1900—included maps of itineraries by zones, the signaling of municipalities with uniform identification plates as well as the numbering of French roads. These were initiatives that transcended the characteristic functions of a private company. In order to manage these activities, in 1908 Michelin established the *Boureau du Tourisme* department—later called *Boureau des Itinéraires*—headquartered at 99 Boulevard Pereire in Paris.

However, the beginning of the war interrupted the annual publication of the guide, as well as the rest of the firm's promotional activities. Michelin also saw the production of their factories halted, the cessation of exports along with the military recruiting a large part of their male employees. In addition, the needs and requirements of the military implied the supply of solid rubber tires for heavy transport, trucks and artillery, a product outside of the exclusive focus on pneumatic tires that Michelin had realized for years. To mitigate this lack of income, recover their share of leadership and attempt to retain qualified personnel, the company initiated a series of strategic actions.

If the forecast for the growth of road transport on motor vehicles—fitted with pneumatic tires—had fostered Michelin's early initiatives on tourism and the creation of the Red Guide, the presumed avalanche of post-war foreign tourism required a similar response.⁷⁶ The cartographic team responsible for the edition of the Red Guide was commissioned to work on a new project, the preparation of tourist guides covering the principal locations of battles fought in the war.⁷⁷

As a demonstration of the spirit of patriotism and service behind Michelin's proposal—in addition to the aforementioned collateral benefits—the profits resulting from the sale of the various volumes that made up the collection were donated to the Alliance Nationale—Alliance Nationale pour l'Accroissement de la Population Française, founded in 1896 by Jacques Bertillon—and their social campaigns promoting natality. The collection *Les Guides Illustrés Michelin des Champs de Bataille* consisted of twenty-nine volumes. The first was published one year before the armistice was signed in September 1917, the last in April 1921, and the collection was widely advertised in intensive publicity campaigns (figs. 236-250).

Each of the guides, with variable page numbering, was bound in cloth and had numerous photographs and detailed maps complementing the marked routes, accompanied by texts that chronologically narrated the development of the war and the role of the protagonists in each concrete location. The indications always referred to routes destined for motor vehicle travel, and the interiors of the guide's front and back covers included advertising for maps and other Michelin products, as well as addresses of recommended accommodations and authorized garages where for refueling and repair.⁷⁸

The reader and user of these guides consisted of the potential visitor who would travel to areas that were devastated and in reconstruction,⁷⁹ be it ex-combatants, travelers on pilgrimage to the places where family and friends had fought and perished or merely curious tourists. Originally, the guides were published in French, targeting the autochthonous public and those from Allied countries of Francophone influence such as neighboring Belgium. But very soon, the potentially large Anglo-Saxon market was taken into account, and nineteen of these guides were translated into English (figs. 251-255). This comes as no surprise given the large contingents of troops from Britain, Australia—about 92,000 Australian soldiers were in France at the end the war—, New Zealand, Canada and America who fought, not in vain, on French and Belgian lands.

16. Guides in America and Italy.

In 1920, three volumes were published in the English language in France, generically titled *The Americans in the Great War*. They were dedicated specifically to the American reader and included the description of locations and the development of battles in which North American Allied forces fought: *The Second Battle of the Maine* (vol. I), *The Battle of Saint Mihiel* (vol. II) and *Meuse-Argonne Battle* (vol. III). Along with these books, seven more publications were introduced into the United States by the New York publisher War Records Publishing Co. under the supervision of the Michelin Guide and Touring Bureau belonging to the Michelin Tire Co. in Milltown.⁸⁰ They were also responsible for the local edition of the three “American” volumes commissioned by Essex Press Inc. from neighboring Newark (figs. 261-265 and 266-269).⁸¹

The availability of guides for the American public was communicated through advertisements and press releases in various publications.⁸² The investment towards advertising space in generalist journals—especially significant in *The Literary Digest*—and in other types of magazines such as *The American Motorist* or *La France* was \$13,260 (figs. 272-283).⁸³ Between June and November 1920, a dozen of these advertisements were also published in *The American Legion*, the official weekly magazine of veteran military personnel who were part of the American Expeditionary Forces dispatched to France (figs. 284-289). In most of the illustrations the signature of the author responsible for the entire campaign may be viewed, the Memphis cartoonist and cover illustrator William Thatcher Van Dresser (1871-1950).

Book prices ranged from \$0.50 for *Amiens, Soissons, and Lille*; \$1.00 for *Verdun, Reims and Ypres*, and for each of the three volumes in *The Americans in the Great War*, and \$1.50 for *The First Battle of the Marne*. The publications were part of the catalog presented by Michelin agents to the contracted shops and repair shops within the commercial network, which offered the complete collection of ten volumes for the single price of \$9.00.⁸⁴

Italy provided another distinctively different market for the guide. The 1919 collection of the *Guida dei Campi di Battaglia* consisted of four volumes: *Introduzioni storico-geografica* (vol. I), *Isonzo* (vol. II), *Piave, Cadore, Carnia* (vol. III) and *Trentino* (vol. IV). A total of twenty-nine proposed itineraries were

published, describing and documenting the scenarios of war in Italy with photographs, diagrams and maps (figs. 256-257). The edition—and total cost of production—was handled by the Agenzia Italiana Pneumatici Michelin in Milan and 5,000 copies were printed at a price of 50 lire for the entire collection. The total amount of sales for the publication reached 250,000 lire, which was entirely dedicated to finance the education of the country's war orphans (fig. 258).

The transalpine agency channeled a series of annual scholarships and grants through the *Comitati Provinciali Orfani di Guerra*: a scholarship of 800 lire for orphans attending elementary schools “tecniche, ginnasiali o complementari;” a 1,500 lire scholarship for studies in technical institutes, nautical schools, regular schools, intermediate schools of commerce and professional institutes; a 3,000 lira scholarship for university and higher education institutes. As in the case of France, the profits obtained from the commercialization of the guides was destined towards social aims.⁸⁵ The first 53,000 liras from publication sales allowed the 1922-1923 school campaign to be endowed with these incentives, with the intention of continuing the initiative in successive years.⁸⁶

Notes

1. French luxury goods, such as automobiles and their components, were a symbol of distinction and elevated social status, as evidenced by the slogan used in some 1906 advertisements by the Eben E. Winans Michelin Products Selling agency: "It is considered *CHIC* to have Michelin tires on your car even in France."
2. The large French passenger ships, which usually serviced the New York-Le Havre line, were confiscated by the French Government and used for the transport of conscripts. As a civilian vessel they were an easy target for the enemy navy, so it was customary for them to be camouflaged and painted to achieve the appearance of a warship. Jouas (2005), pp. 76-77.
3. According to news published in the newspaper *New Brunswick Times* "Michelin must go to war" and "Michelin men sail tomorrow" on August 3 and 4, 1914; and "Trade news notes," *The Indian Rubber World*, September 1, 1914, p. 669. This is also mentioned in Jouas (2005), p. 76.
4. *Ibid.*
5. "Forsakes bride to serve his country," *The South Amboy Citizen*, August 15, 1914, p. 2.
6. Jules Hauvette Michelin returned to New York on February 15, 1915 after his voyage aboard the ship *Rochambeau*, from the French port of Le Havre, according to the passenger list publication *New York Passenger List, 1820-1957* from the Ancestry.com archives. A news item reported on the second trip: "J. Hauvette-Michelin has just returned from abroad, aboard the French ship *L'Espagne*," *New Brunswick Times*, November 22, 1915.
7. "Mr Michelin, neutral on war, talks of new tire," *New Brunswick Times*, November 22, 1915.
8. Wall (1921), p. 108.
9. *Ibid.*, pp. 108-109. "Under the rules, exemptions were granted to six classes: Men indispensable to industries necessary to the maintenance of the military establishment; men with wives, children, parents or other dependents upon them for support; clergymen and divinity students; alien residents who had not taken out their first naturalization papers, and Germans; pilots and marines in the merchant marine service; criminals convicted for felonies and the morally deficient."
10. In one of the scarce references identified on the subject, John G. Rosta, whose stated in an interview: "(...) the people that worked at Michelin Tire Works produced tires for our military at that time, ... and they were exempt from the draft," *Interview with John Rosta*, carried out by G. Kurt Piehler and Mark Rybak in New Brunswick, New Jersey, October 18, 1997. Rutgers Oral History Archives of World War II.
11. "3333 Michelin men fight in World War," *The Sunday Oregonian* (Portland), February 16, 1919, p. 11. On the beginning of production: Wall (1921) pp. 66-69; and in "Big year ahead for tire plant," *Trenton Evening Times*, March 22, 1919.
12. According to information provided personally by Brian Harto, member of the Milltown Historical Society. These units received the popular nickname "The Rinky Dink" [small time, amateur, lower quality] and were probably conditioned to respond to military orders, although it is unknown whether they were intentionally built or if they previously existed.
13. The photograph was located at the Michelin Patrimoine Archives of Clermont-Ferrand, in a folder along with other interior shots of various facilities at the Milltown factory. It is likely that the image portrays a production plant of the factory, but there is also the possibility that it shows the use of Michelin tires by truck cranes utilized by the U.S. Gun Naval Factory in their own installations.
14. As explained with respect to the private industry in *History of the Naval Gun Factory, 1883-1939*, accessible from the Department of the Navy's website www.history.navy.mil/library/online/nav-gunfound.htm, Naval Historical Center, Washington Navy Yard, Washington DC.

15. The start dates of the different war bond issue campaigns were, consecutively: first Liberty Loan, April 24, 1917; second Liberty Loan, October 1, 1917; third Liberty Loan, April 5, 1918; fourth Liberty Loan, September 28, 1918.
16. In the third “Victory Loan” launch about 9,000,000 posters were printed—using 12 different models—5,000,000 stickers for windows and window displays, 16,000,000 pins and 50,000,000 stamps. Among the list of artists who participated in their creation we can find the names of Howard Chandler Christy, Josep Pennell, J. C. Leyendecker, Sydney Riesenber, Robert Paus, Henry Raleigh and Sydney S. Stern. “9,000,000 posters to herald new Loan,” *The New York Times*, March 10, 1918.
17. “Michelin Tire Co. in patriotic drive,” *The New York Sun*, November 11; “Bond leaves at Michelin,” *The Indianapolis Sunday Star*, November 11; and “Liberty Loan Big Succes,” *The Chester Times* (Pennsylvania), December 1, 1917.
18. “How the Fisk Rubber Co. kept tabs on its Liberty bond drive,” *Motor West*, November 15, 1917, p. 32.
19. “Michelin 100 p. c. patriotic,” *The New York Sun*, May 5, 1918.
20. “The city’s vast total for Liberty Loan,” *The New York Times*, November 17, 1918. Although the figures provided in the news stated that the amount subscribed in the particular case of New Brunswick was \$ 3,419,150, this figure was transcribed into \$ 3,633,100, a result that was justified in detail in Wall’s (1921) text, pp. 85-86.
21. Some comparative figures for the first Liberty Loan campaign rank the United States Rubber Co. of New York in first place, with a company subscription of \$ 1,000,000 and \$ 1,400,000 from individual workers representing their different factories and commercial dealerships. Other examples of bond subscriptions in this first campaign, completed July 15, 1917, include \$ 750,000 from BF Goodrich’s nearly 700 employees; \$ 675,000 from 11,000 Goodyear Tire & Rubber Co. workers, and \$ 100,000 from the company Ajax Rubber and \$ 300,000-400,000 from their employees. Source: “War news in rubber industry,” *The India Rubber World*, July 1, 1917.
Another example would be that of the medium-sized company The Republic Rubber Corp. from Youngstown, Ohio. The value of corporate contributions totaled close to \$ 30,000—\$ 1,000 for company management and \$ 29,000 for their employees—representing 1,782 subscribers. Butler, Jos. G. *History of Youngstown and the Mahoning Valley, Ohio*. Vol. 1. Chicago/New York: American Historical Society, 1921, p. 792.
In the case of the fourth Liberty Loan campaign, the following is an example of one of the leading companies in the sector: “Employes and officials of The BF Goodrich Co. reached their quota of \$ 2,150,000 towards the Fourth Liberty Loan in less than forty-eight hours. This did not include subscriptions from any of the 125 branches maintained by the company or the \$ 500,000 purchased by officials of the company in New York,” *The India Rubber World*, November 1, 1918, p. 100.
22. Wall (1921) p. 91
23. Wall (1921), pp. 99-100.
24. “The Rubber industry is ‘doing its bit’,” *The India Rubber World*, June 1, 1917, p. 508.
25. “Increasing the food supply,” *The India Rubber World*, July 1, 1917, p. 573.
26. Wall (1921), p. 114.
27. As explained in the article “Michelin employees to grow vegetables,” *Oakland Tribune*, May 27, 1917. Another example in the tire industry is detailed in an article about the Dunlop Tire & Rubber Goods Company, Ltd. of Toronto, in Ontario. In the spring of 1914 with a pre-war atmosphere, about one hundred parcels were built on a 57-hectare property located on the company’s premises, to be cultivated by the workers. During 1918, “a single employee extracted the following vegetables from his garden: 18 sacks of potatoes, 260 kg of turnips, 75 kg of parsnips, 112 kg of carrots, 186 kg of beets, 37 kg of beans, 28 kg of green beans , 500 kg of onions, 15 baskets of tomatoes, 300 gourds,

- 85 heads of garlic, a large number of lettuce and radishes, brussels sprouts, etc.” “The Dunlop greater production plan,” *The India Rubber World*, February 1, 1919.
28. “Bond sale at Michelin,” *The Indianapolis Sunday Star*, November 11, 1917, p. 17.
 29. Jules Hauvette Michelin returned to New York on May 5, 1919 after traveling aboard the La Savoie passenger ship from the French port of Le Havre. *New York Passenger List, 1820-1957* archive accessible at Ancestry.com
 30. “Michelin insures all its employees,” *The New York Sun*, June 29, 1919; “Michelin plans insurance for all employees,” *Indiana Evening Gazette*, July 5, 1919.
 31. Jouas (2005), pp. 78-79.
 32. Wall (1921), pp. 147-148.
 33. Ibid, pp. 66-69.
 34. As stated in the book of commemorative acts edited for the occasion, *Welcome Home Day. Official Souvenir Program. Saturday, September 27, 1919*.
 35. “3,333 men in war; 511 killed; 690 earn medals,” *The Syracuse Herald*, February 16, 1919.
 36. Moulin-Bourret (1997), pp. 199-200.
 37. Ibid, p. 254.
 38. Ibid, p. 307.
 39. Ibid, p. 302.
 40. For more detailed information see the three articles published in the sector’s specialized magazine *The India Rubber World*: “From a well-known Frenchman,” April 1, 1919; “An investigation of German ravages in rubber factories of Belgium and Northern France during the Great War,” June 1, 1919, pp. 475-477; and “German ravages in the rubber factories of Northern France,” September 1, 1919, pp. 679-682.
 41. Although part of their equipment was recycled for military purposes. The presses used to manufacture Continental tires were moved in order to manufacture 75-millimeter projectiles. “Machinery impressment,” *The India Rubber World*, January 1, 1916, p. 197.
 42. “Sequestration of Teutonic firms,” *The India Rubber World*, January 1, 1916, p. 197.
 43. “Machinery impressment,” *The India Rubber World*, January 1, 1916, p. 197.
 44. “Enlarge French automobile factories,” *The Automobile*, February 3, 1916, p. 222. “Effects of war on tire industry,” *New York Tribune*, November 22, 1914.
 45. As Moulin-Bourret (1997) explains, pp. 200-201. The amount expressed in dollars comes from the information contained in the article published in an American publication: “Motor industry subscribes fortune to French war loan,” *Motor Age*, January 13, 1916, p. 25.
 46. “German truck train organization,” *Automotive Industries*, February 13, 1919, pp. 396-397. The Oberspree tire brand was manufactured by the Gummiwerk Oberspree GmbH. in the town of Oberschöneweide, near Berlin.
 47. Depending on the sector within the rubber industry, in 1918 the War Service Committee was assigned to fifteen departments or divisions, in addition to the central managing body itself, known as the Central Committee: Aircraft Division, Boot and Shoe Division, Clothing Division, Crude Rubber and Kindred Products Division, Foreign Trade Division, Gas Defense Division, Hard Rubber Division, Insulated Wire and Cable Division, Mechanical Rubber Goods Division, Medical Rubber Goods and Sundries Division, Pneumatic Tire Division, Railway Supplies Division, Reclaimed Rubber Division and Solid Tire Division. “Activities of the War Service Committee of the Rubber Industry of the U.S.A.,” *The India Rubber World*, October 1, 1918, p. 9, and November 1, 1918, p. 70.
 48. This is included in the listing of members by department for the Rubber and Rubber Goods Section of the War Industries Board. “Government officials in charge of rubber matters,” *The India Rubber*

World, November 1, 1918, p. 66. Also See “An active worker in connection with the War Industries Board,” *The India Rubber World*, December 1, 1918.

49. Since 1902 Matlack was the director of the International Automobile and Vehicle Tire Company in Milltown, a tire manufacturer that was acquired by Michelin to establish their American subsidiary. In the impasse until the nomination of a director who the Michelin brothers were fully confident of—Jules Hauvette-Michelin—, Matlack led the Michelin Tire Company in Milltown until 1909. He was then appointed CEO of the competitor Ajax Rubber, with which he had an affiliation for eight years until his departure in early 1917. In December of that same year he was elected president and CEO of another tire manufacturer, the Globe Rubber Tire Mfg. Co. of New York. The quality of the relationship between the replaced Matlack and the newcomer Jules Hauvette-Michelin is not known, although news from a local newspaper speculated on rumors that it was tense and had deteriorated progressively until the departure of Matlack. Could this past incidence have influenced the relationship between the Michelin American subsidiary and the government administration in times of war?
50. “The Rubber Industry is ‘doing its bit’,” *The India Rubber World*, June 1, 1917, p. 507.
51. *Ibid.* The issue of female labor in tire-manufacturing companies is also addressed in “Improved equipment increases number of women pull workers,” *The India Rubber World*, October 1, 1918.
52. For example, in the Fisk Rubber Co. corporate magazine we find sections such as “Service Fisk Record, list of fiskers in service” or two pages of “Interesting letters from fiskers in the service,” *The Fisker*, February 1918, number 14. A wealth of profusely illustrated news items and feature articles with photographs of the Front and soldiers can be found in the 1917 and 1918 editions of *Milestones* magazine, published by Firestone. Also in the internal magazine *Hood Arrow* of Hood Rubber in Watertown, published fortnightly, we can find in the November 15, 1918 issue around nine pages dedicated to employees enlisted in the military. Most of the descriptions included their mailing address and employees and colleagues from each department were encouraged to send Christmas greetings. *The India Rubber World*, December 1, 1918. Those known as ‘Roll of Honor’ or lists of recruited individuals were habitually displayed in each town as a tribute to their enlisted citizens. This was also true for Milltown, home of the Michelin Tire Company. A large panel crowned by two American flags listed local residents dispatched to combat zones, as seen in a photograph reproduced in the publication *Milltown, Images of America*, p. 100. In addition, the leading magazine of the rubber industry also devoted several pages in 1917 to publish information on enlisted employees from various companies in the rubber and tire sector: “The rubber trade Roll of Honor,” *The India Rubber World*, July 1, pp. 577-578; August 1, pp. 641-643.
53. “To cut tire and tube production 50% during August and September,” *Automotive Industries and The Automobile*, August 1, 1918, pp. 205-210. In another news report on the particular case of the Gillette Rubber Company in Eau Claire, it specifies that the factory, in compliance with government orders, reduced their production by half during the months of August and September 1918, resulting in a daily production of 400 tires. This policy was achieved by suspending night shifts which affected about forty workers; thirty-five of whom accepted the offer to be relocated by the company. “Gillette Tire Co. ends night work 2 months,” *Eau Claire Leader* (Eau Claire, Wisconsin), August 21, 1918.
54. Lief (1951), p. 94, and French (1991), p. 38.
55. “Gas defense equipment and the rubber industry,” *The India Rubber World*, March 1, 1919; and “Federal Rubber Co. makes 1.000 gas masks a day,” *Automotive Industries*, September 19, 1918.

56. "The Savage Steel Tire in the European war" and "Savage pneumatic tires for war machines," *The Bakersfield Californian*, November 13 and 20, 1915.
57. Babcock (1966), p. 141.
58. O'Reilly, pp. 44-45; and Rodengen (1997), p. 52.
59. Lief (1951), pp. 92-93.
60. Blackford y Kerr (1997), p. 67.
61. "Victory Banquet," *The India Rubber World*, February 1, 1919, pp. 233-239.
62. Dumond (1993), p. 53.
63. "Selling American tires in Great Britain," *Automotive Industries*, September 28, 1922.
64. Ibid.
65. When import tires were finally taxed in early 1927, Michelin decided that the time had come to expand their commercial presence with a factory of their own and started the steps for the construction of the Stoke-on-Trent factory in North Staffordshire, which produced their first English tires in November 1927. This was followed by the example of French automakers Citroën—who opened a factory in Slough in 1926—and Renault—with a small factory in Acton in 1927—whose presence in the British market also gave them access to markets under Anglo-Saxon influence with favorable conditions.
66. As explained in the publication on the company listed in the bibliography, in addition to the information contained in a 24-page booklet that includes the conference given, probably around 1919, by W.W. Williams, employee of the North British Rubber Company and can be consulted accessing www.nbrinklies.com/ww2.html
67. As explained in the chapter on Avon's history, "The war years and in between," on their corporate website accessible at www.avon-rubber.com/About-Us/our-history.htm
68. "Items of war news," *The Times*, September 15, 1914.
69. Moulin-Bourret (1997), p. 264.
70. The values indicative of the percentage of total production destined for export during that period were: 1913 and 1914 (86%), 1915 (82%), 1916 (70%), 1917 (49%), 1918 and 1919 (28%), 1920 (71%), 1921 (68%), 1922 (75%). "L'industria e il commercio della gomma in Italia," *L'Economia Nazionale*, November 1928, p. 39-43; "Ai caduti dello Stablimento Michelin," *Bibendum*, June 3, 1924, p. 7.
71. "Michelin tires at the front," *The Indianapolis Sunday Star*, May 6, 1917.
72. As explained in separate articles of the Spanish sports magazine *Stadium* published in Barcelona: "El esfuuerzo de Fiat en la pasada guerra" [Fiat's Effort in the Last War], March 15, 1919, p. 141, and "Los talleres Fiat, de Torino" [The Fiat Workshops of Torino], May 3, 1919, p. 219.
73. "The situation in France," *The India Rubber World*, May 1, 1916, p. 438.
74. "Italian motor industry prospers in face of war," *Motor Age*, January 20, 1916, p. 19.
75. "Ai caduti dello Stablimento Michelin," *Bibendum*, June 30, 1924, p. 2-11.
76. According to Harp (pages 95 and 120), the forecasts of U.S. visitors to battle scenes after the war ended were 600,000-700,000, based on the study of tourism conducted in March 1916 by Pierre Chabert for the French Office National du Tourisme. The figures came from the 400,000 tourists who visited France between April 1913 and April 1914. The reality, however, was far from the estimates with only 200,000 travelers.
77. Harp, p. 92.
78. For more information on the subject, I recommend reading the exhaustive and documented chapter "Touring the trenches. Michelin Guides to World War I Battlefields" from the book by Stephen L. Harp, pp. 89-125. In addition, there is a doctoral thesis mentioned on numerous occasions which

- is a recommended read: Champeaux, Antoine. *Les guides illustrés Michelin des champs de bataille, 1914-1918*. PhD thesis, Université de Paris IV, 1984.
79. According to a 1919 report, the Touring Club de France prepared the way for tourists with initiatives such as erecting monuments in places where American troops had fought or sending circulars to towns “urging mayors to advise citizens not to eliminate remains and signs of war and to keep them in conditions for the expected tourist visits.” “Says France plans for war-zone trips,” *The New York Times*, January 27, 1919.
 80. According to explanations derived from advertising texts for the guides in the American press.
 81. As stated in the last pages of the three volumes of *The Americans in the Great War*.
 82. Different sectors of the American press also fomented this type of tourism. In 1919, for example, *Motor* magazine published a series of articles written by Francis M. Mansfield on a variety of tourist routes in France targeting battle locations to visit traveling by car, illustrated with maps and itineraries: “The road to the Rhine,” February, 1919, pp. 54, 79 and 110; and “The Circuit of the Battlefields,” April 1919, pp. 56, 81 and 106.
 83. “Alphabetical List of Advertisers, 1913-1922,” *National Markets and National Advertisers 1922*, p. 92. The figure is taken from this annual publication, collecting information compiled by the Advertising Department of The Crowell Publishing Co., New York, based on the in-depth analysis of 34 leading national magazines in the U.S.
 84. “Michelin guides to battle fields of World War,” *The Newark Daily Advocate*, February 25, 1921.
 85. “Turismo benefico,” June 1922, pp. 2-6, in the corporate magazine *Bibendum* published by the Agenzia Italiana Pneumatici Michelin.
 86. “Sinite parvulos,” December 1922, in the corporate magazine *Bibendum* published by the Agenzia Italiana Pneumatici Michelin.

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For Hard Work and Reliability

MICHELIN TIRES

Are Always Selected by All the Leading Manufacturers

<p>PATRONIZED BY:</p> <p>Corbin Motor Vehicle Crescenting Lansdale Co. Ford Motor Co. Overton-Duryea Kays Cordier Ingers Dunlop American Motor Walham Acme Rebeck</p>	<p>PATRONIZED BY:</p> <p>S.L.M. Bartolomeo Cleveland Hawitt National Raiser Royal Tourist Jendelaker Walker Haynes Renault Freres F.A.A.T.</p>	<p>PATRONIZED BY:</p> <p>C.G.V. Fahard & Lorraine Mercedes Mey Sals Richter-Schneider Delannoy-Belleville Soma Freres De Dion De Dietrich Delahaye Saurer Moore Nevada</p>
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"Reign Supreme"

<p>1st A. C. F. Grand Prix 1906 - 1907 1st Targa Florio - - 1906 - 1907 10-mile track record, 9 m. 47½ s.</p>	<p>1st Vanderbilt Cup Race 1904-1905-1906 1st Kaiser's Cup Race - 1907 15-mile track record, 14 m., 45 s.</p>
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OUR NOVELTIES:

MICHELIN Special Racing Round Tread Tire.

MICHELIN SEMELLE Anti-Skid and Non-puncturable.

Used by Nazzaro in the last Kaiser's Cup and the Grand Prix.

E. Lamberjack & Co.
SOLE AGENTS FOR U. S.
31-33 WEST 31st STREET
NEW YORK CITY
Tel. 556 Madison

LIFE

French Natural Sparkling

Perrier

THE Water

Have you ever tried Perrier with a slice of lemon or with your whiskey? Nothing so refreshing.

With Meals—Aids Digestion



FRENCH FLAG-BEARERS.

In the texts and images of early American Michelin advertisements there were constant references to the French origin of products imported and marketed in the United States. This label of quality "Made in France" was also prized and exhibited by other exclusive products consumed in North America, such as Perrier carbonated water as shown in the image on the left. From 1908, with the start-up of the Milltown factory, the strategy demanded the suppression of such references and to fully assume the American origin of Michelin products in advertising communication.

1. Advertisement for E. Lamberjack & Co., Michelin's exclusive importer for the North American market, in *Travel Magazine*, August, 1907.
2. Advertisement for the French carbonated mineral water Perrier in *Life* magazine, November 4, 1909.

THE AMERICAN SOLDIER.

Michelin, a French company based in the United States, had few opportunities to promote their contribution to the war effort. Their share of being a protagonist was limited, at first due to American neutrality early in the conflict and subsequently, due to the preference given to large national companies in signing contracts with the military.

This page shows two of the scarce examples of patriotic images used by Michelin Tire in Milltown with the corporate mascot as the protagonist. The example on the right was published one month before the declaration of war between the United States and Germany. Bibendum poses armed with a rifle, ready to enter into combat. The text of the advertisement titled "Michelin, the Rear Guard" also alludes to the pre-war environment, as evidenced by the first paragraph: "For your peace of mind, it is mighty reassuring to have a Michelin Universal on the rear of your car."

In the image below, the Michelin advertisement contrues an allegory on the communion between the firm's products (Bibendum), the American market (Uncle Sam) and the satisfied customer, marching in unison on a common front. The scene emulates the powerful iconography used by painter and illustrator Howard Pyle in his 1903 painting *The Nation Makers*, a patriotic tribute to General Washington and his colonial troops in the defense of Philadelphia during the American War of Independence.

3. Advertisement published in *Motor Age*, March 1, 1917.

4. Illustration of an insert for *Motor World* magazine, January 2, 1918.

MICHELIN

The Rear Guard

For your peace of mind, it is mighty reassuring to have a Michelin Universal on the rear of your car.

For then you know that no matter what happens to your tires your spare is the best that you can get. You know at all times that you have a tire in reserve that will see you through the roughest going.

And if you have Michelin Casings and Tubes on all four wheels as well, then indeed you have the ideal tire equipment, and you will have the minimum of tire trouble and expense.

MICHELIN TIRE CO., Milltown, N. J.



**NOW JOIN *the* ARMY
of satisfied**

MICHELIN TIRE DEALERS

M
Michelin dealers are
prosperous dealers.
Their bank accounts
grow steadily bigger.

An Army of Satisfied Users
*Wholesale Tire Distributors
and Retail Dealers*

DO you want to annex an army of satisfied customers? If so, sell them Sterling Tires. They will not only continue to do business with you, but they will tell their neighbors and friends about the honest values you are giving in Sterling Tires!

For many years the tide has been in favor of Sterling Tires; and today, the tide is stronger and swifter than ever.

Here are the reasons why Sterling Tires have won and hold the confidence of dealers and car owners:

First, we have always had a sincere desire to build perfect satisfaction and extreme endurance into every Sterling Tire.

Second, our long and successful experience has taught us a great deal about making dependable tires. We have every manufacturing resource.

Third, we use the very best material—and plenty of it.

We give the broadest and fairest guarantee. It will pay you to read this guarantee!

Territory is being rapidly taken up. Write today for full information; tomorrow may be too late.

**Sterling
Tires**

STERLING TIRE CORPORATION
Rutherford, New Jersey, U.S.A.

THE MERCHANT TROOPS.

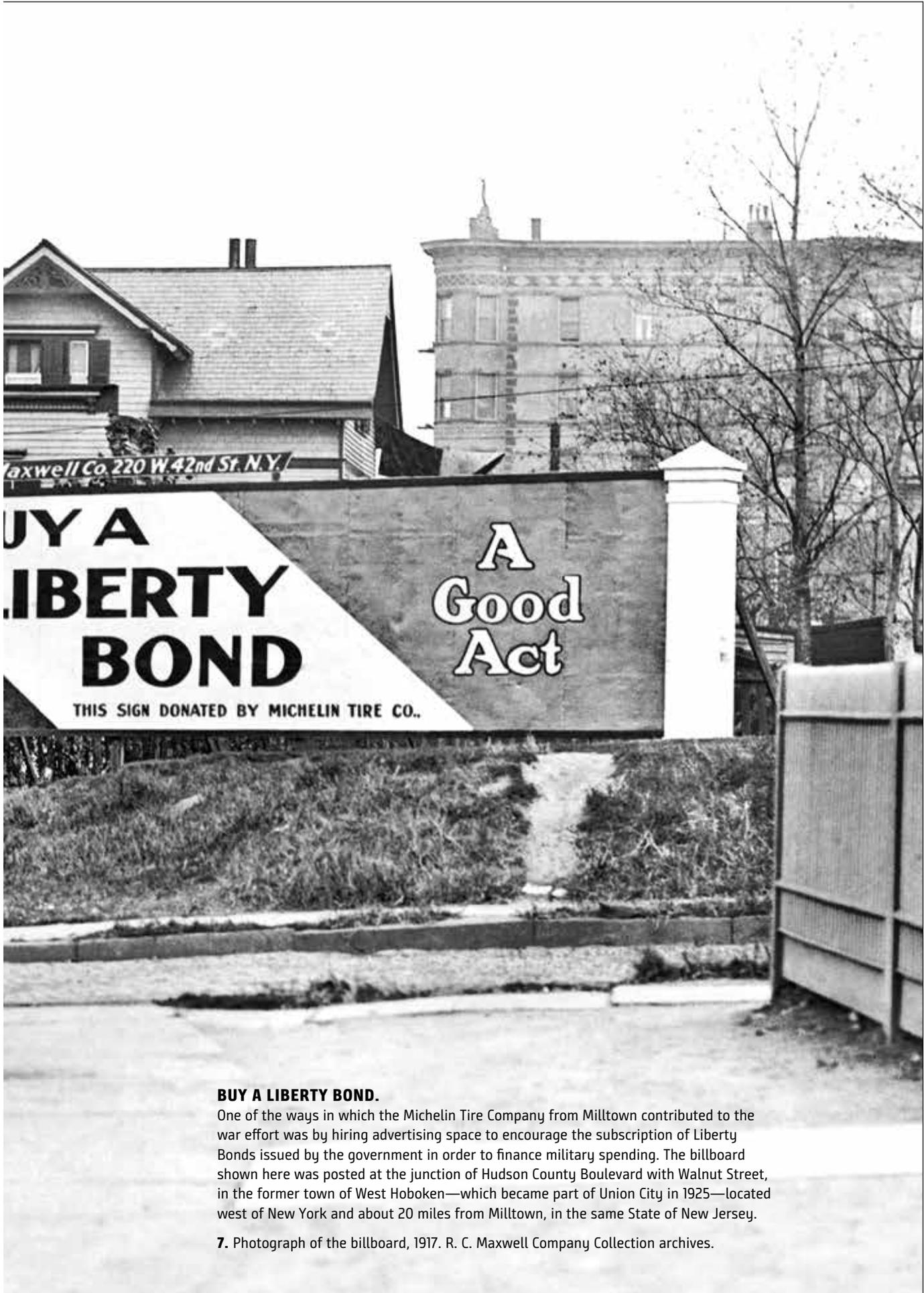
The above illustration is another of the few examples of Michelin utilizing images to reflect the United States entering the war and the mobilization of troops. The headline with the slogan “Now join the Army ... of satisfied Michelin tire dealers” appears more similar to shocking propaganda posters for Army recruitment than to an advertisement for commercial purposes.

After the war, the vestiges of militarization that deeply affected civil society were also seen in advertising language. The advertisement on the left for Sterling tires with their motto “An army of satisfied users”—similar to that of Michelin—is an example of this.

5. Cover page of a Michelin advertising insert in specialty automobile magazine *Motor Age*, December 27, 1917.

6. Advertisement for Sterling Tires published in *Hardware Age* magazine, April 8, 1920.





BUY A LIBERTY BOND.

One of the ways in which the Michelin Tire Company from Milltown contributed to the war effort was by hiring advertising space to encourage the subscription of Liberty Bonds issued by the government in order to finance military spending. The billboard shown here was posted at the junction of Hudson County Boulevard with Walnut Street, in the former town of West Hoboken—which became part of Union City in 1925—located west of New York and about 20 miles from Milltown, in the same State of New Jersey.

7. Photograph of the billboard, 1917. R. C. Maxwell Company Collection archives.

**Buy Bonds
or
Fight Guns**

THIRD LIBERTY LOAN

OVER THE TOP WITH THEM — BUY A BOND!

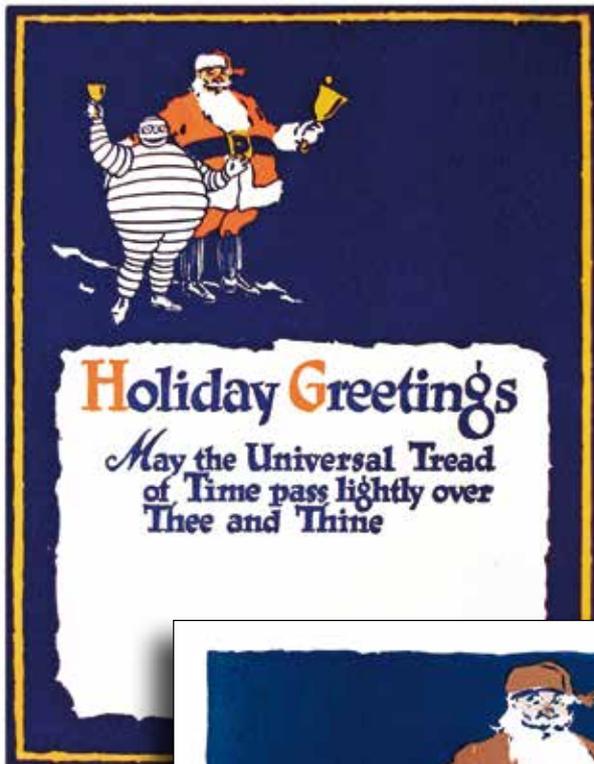
THIS PAGE DESIGNED BY
H. H. LEVEY
'18.

The Following Firms Have Cheerfully Contributed This Space and Recommend the Purchase of the Third Liberty Loan.

CROCKER (Millinery), 375 Fifth Av.	HOTEL MARTINIQUE ,	HENRY L. DOHERTY & CO.	HOLLAND & CO.
MICHELIN TIRE CO. (Automobile Tires),	Broadway, 32d and 33d Sts.	(Bankers), 60 Wall St.	(Investment Securities), 62 Broadway
Milltown, N. J.	HOTEL CHELSEA ,	WALTER J. PIERCE & CO.	CATLIN, STREET & CO.
F. R. WOOD, W. H. DOLSON CO.	23d St., between 7th and 8th Avs.	(Stock Brokers), 43 Exchange Place	(Investment Securities), 60 Broadway
(Real Estate), Broadway & 80th St.	HOTEL COLLINGWOOD ,	HOWARD A. RILEY & CO.	FRANCIS & CO.
MALCOLM E. SMITH & RUDOLPH C. CULVER	35th St., between 5th and 6th Avs.	(Stock Brokers), 20 Broad St.	(Brokers), 1 Wall St.
(Real Estate), 181 Madison Av.	HOTEL NEWTON , Broadway and 94th St.	FRED W. LANGHORST & CO.	CHARLES GOLD & CO.
HUGHES-TAYLOR CO. (Real Estate),	HOTEL LAURELTON , 147 West 55th St.	(Stock Brokers), 39 Broad St.	(Brokers), 44 Broad St.
Montclair, N. J.	HOTEL LANGDON , 5th Av. and 56th St.	J. FRANK LILLY & CO.	KEMERER, MATTHEWS & CO.
ASHFORTH & CO. (Real Estate),	HOTEL ST. JAMES , 109 West 45th St.	(Investment Securities), 62 Broadway	(Brokers), 50 Broad St.
591 Fifth Av.	HOTEL TOURAINE , 11 East 39th St.	WM. McDERMOTT	SLATTERY & CO.
ROBERT E. FARLEY ORGANIZATION	HOTEL ST. PAUL , 60th St. and Columbus Av.	(Stock Broker), 38 Broad St.	(Investment Securities), 40 Exchange Pl.
(Real Estate), 12 East 44th St.	HOTEL FLANDERS ,	A. JAECKEL (Furrier), 384 Fifth Av.	WORAM & CO.
GRIFFEN, PRINCE & RIPLEY (Real Estate),	West 47th St., near Broadway	F. A. O. SCHWARZ (Toys), 303 Fifth Av.	(Stock Brokers), 42 Broadway
18 East 41st St.	HOTEL MARIE ANTOINETTE , E'way, 67th St.	WILLIAM REIMAN (Jeweller), 328 Fifth Av.	G. B. De CHADENEDES & CO.
L. J. PHILLIPS & CO. (Real Estate),	HOTEL SEYMOUR , 45th St., near 5th Av.	HOTEL BRETTON HALL , E'way, 85th-86th.	(Investment Securities), 66 Broadway
148 West 72d St.			H. N. HEMPSTEAD , President
ALWYN COURT APARTMENTS ,			New York Giants Baseball Club.
182 West 58th St.			THE TUCKER AGENCY, INC.
			(Advertising), 303 5th Av.

ENLISTED. Another way of contributing to financing the war was to cover expenses for propaganda inserted in the press. The companies and institutions that participated in each initiative were publically recognized, an example of which is shown in the above image. The second mention in the list corresponds to the Michelin Tire Co. (Automobile Tires).

8. Full-page advertisement in the *New York Evening Telegram*, April 14, 1918. Illustration by H. H. Levey.



SENSIBLE CHRISTMASES.

In the advertisement shown here titled "Make this a Sensible War-Time Christmas," Bibendum becomes Santa Claus's herald and helper in order to recommend Michelin articles as an ideal gift in times of restrictions. A part of the text details the advantages of the product:

"War time suggests that our gifts be practical as well as pleasing. Michelin Tires are both. (...) Remember that Michelin Tires are not high priced. Both the casings and tubes are attractively wrapped and packaged ... What better way to please father or husband or brother than to help him equip with the best of tires that car of which he is so proud?"

9. Michelin Christmas postcard, December 1917.

10. Full-page advertisement published in *The Saturday Evening Post*, December 15, 1917. Unsigned, but illustrated by Arthur N. Edrop.

Make this a Sensible War-Time Christmas

War time suggests that our gifts be practical as well as pleasing. Michelin Tires are both. Nothing could be more practical or acceptable than a Michelin Casing or Tube—a gift that reduces tire expense, the most important item in motor car upkeep.

What better way to show appreciation of the rides you've had with a friend than to give a Michelin Casing or Tube, which even under hardest usage will long serve as a reminder of your generosity?

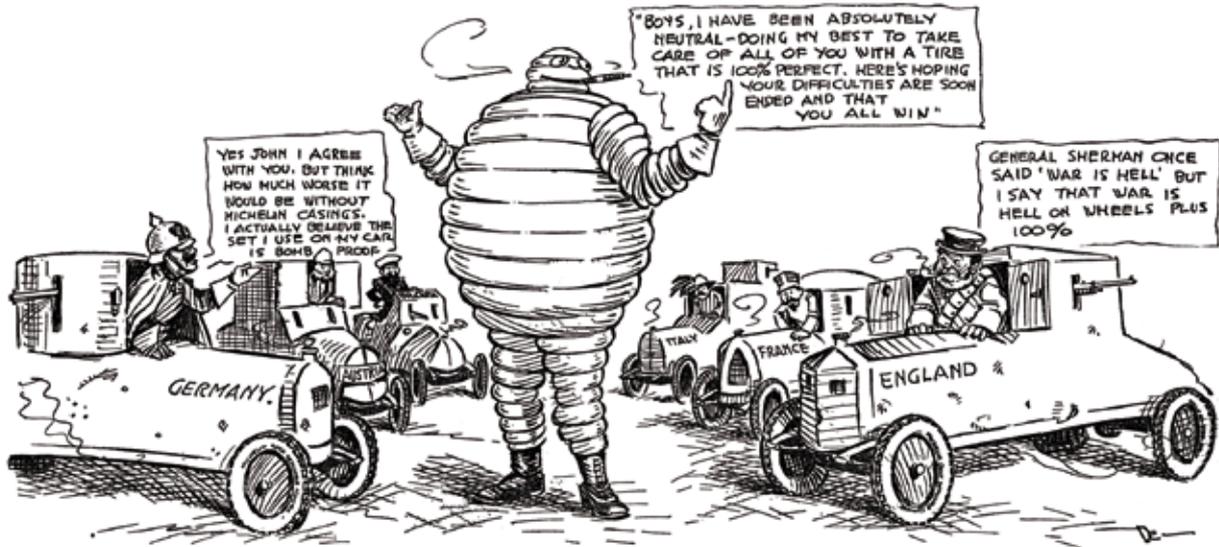
Remember that Michelin Tires are not high priced. Both the casings and tubes are attractively wrapped and packed. And they are easy to buy; just look for the Michelin sign in garages and supply stores near you—or write us for the name and address of your nearest Michelin dealer.

What better way to please father or husband or brother than to help him equip with the best of tires that car of which he is so proud?

No matter whether you wish to spend little or much, Michelin offers you what you desire. The tube costs only a few dollars. The casing of course is a more expensive present. And the casing and tube combined make a gift incomparable—a present that will be most appreciated by the whole family than would a number of gifts less thoughtfully selected.

MICHELIN TIRE COMPANY, Milltown, New Jersey
Canadian Headquarters: Michelin Tire Co. of Canada, Ltd., 282 St. Catherine St., West, Montreal

MICHELIN



A DENATURALIZED BIBENDUM. The company Hippe Motor Supply from Des Moines was the local distributor of Michelin tires in Des Moines, Iowa. Their advertisements, inserted in the local press, were not based on the canons established in Milltown, but rather were the result of the personal and imaginative creations of the artist Jay Norwood "Ding" Darling, the lead editorial illustrator for the newspaper *The Des Moines Register*. This is the only explanation for some of the scenarios and situations that his drawings depict, set within the context of American neutrality in the conflict initiated in Europe.

11-12. Advertisements for Michelin tires published in *The Des Moines Register*, November 5 and 19, 1916.

THE NEW MICHELIN UNIVERSAL TREAD

The tire that has been put to the most severe tests and in every instance has come out victorious. Why? Because Michelin builds one quality only—The Best.

MR. DEALER:—You are overlooking the best bet in the automobile game if you are not handling Michelin Universal Tread Casings. They are the casings that satisfy the consumer—and thereby build a permanent business for yourself.

Don't fail to look into our proposition before closing your 1917 tire business. It will pay you.

Hippee Motor Supply Co.

708-710 Mulberry St. Exclusive Michelin Distributors Des Moines



LISTINGS. The above image portrays the “Honor Roll” of Milltown, which listed local residents—among them Michelin factory workers—enlisted in the military. The image below shows the panel set up by the Fisk Rubber Co. to encourage war bond subscriptions among their employees in the second Liberty Loan campaign, launched in October 1917.

13. Photograph published in the book *Milltown. Images of America*, listed in the bibliography for this chapter.

14. Photograph published in the book *Chicopee. Postcard History Series*, listed in the bibliography for this chapter.

THIS CLOCK LASTED ONLY 24 HOURS

SEE WHAT YOU CAN DO TO THIS ONE.

TOTAL SUBSCRIPTIONS

TOTAL SUBSCRIPTIONS

FISK LIBERTY LOAN CAMPAIGN-DIVISION STANDINGS

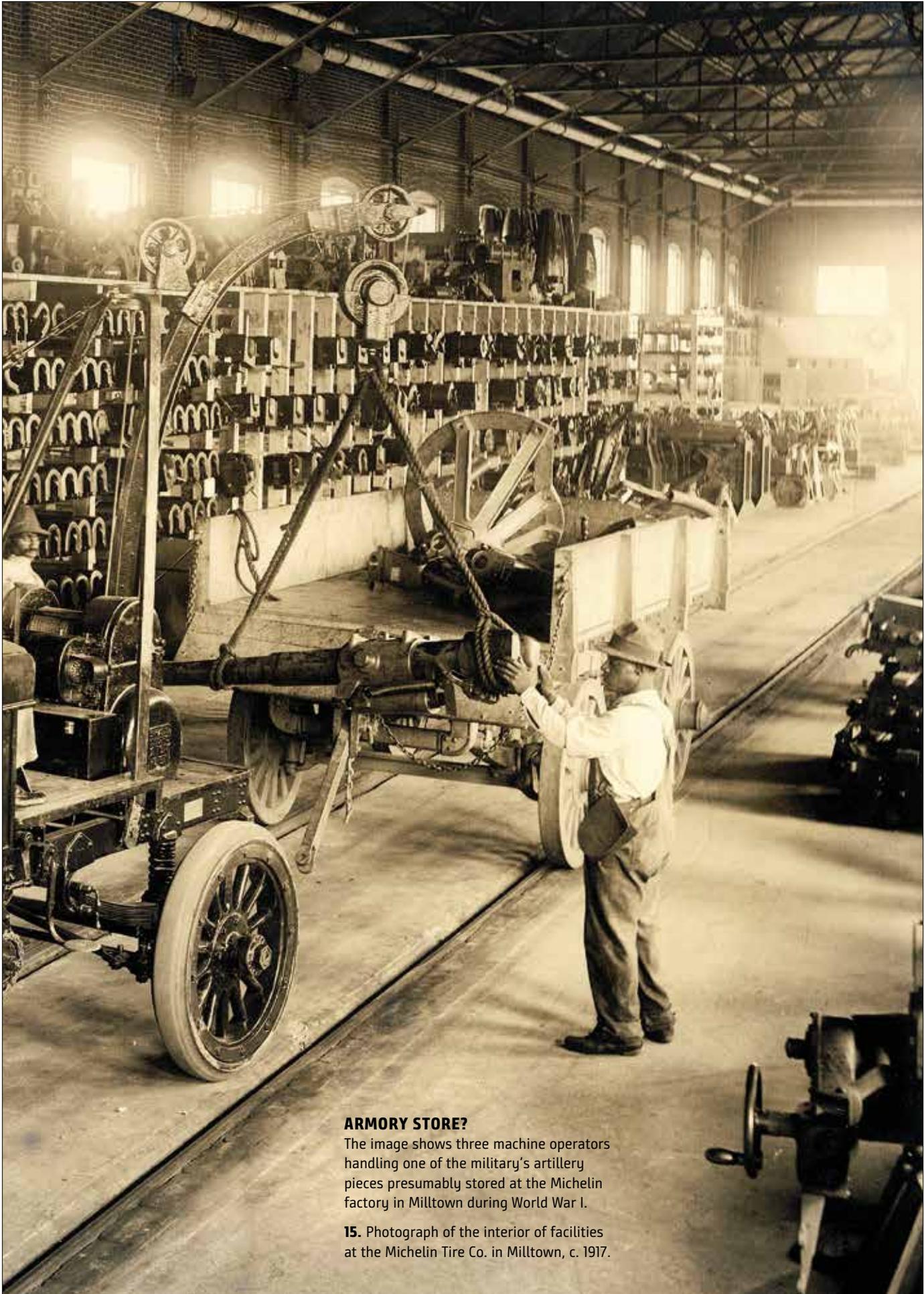
PER CENT SUBSCRIBERS	Div 1	Div 2	Div 3	Div 4	Div 5	Div 6	Div 7	Div 8	Div 9	ALL DIVISIONS
WED. Oct 17 th	36	74	62	46	71	75	69	71	79	67 AVERAGE
THURS. - 18 th Inclusive	57	94	78	74	81	84	78	85	95	82 AVERAGE
FRI. - 19 th	57	94	92	75	96	86	79	88	95	89 AVERAGE
SAT. - 20 th	60	94	97	77	97	86	81	90	96	91 AVERAGE
MON. - 22 nd	67	97	98	81	98	89	83	92	98	94 AVERAGE
TUES. - 23 rd	82	97.6	98.9	83.8	99.7	95.7	84.7	95.4	99.3	95.3 AVERAGE
WED. - 24 th	96.7	98.06	98.9	94.7	99.7	96.74	86.1	98.8	99.4	97.33 AVERAGE
TOTAL \$	24,000	15,625	44,100	78,550	22,550	87,250	22,100	10,100	96,500	333,200

PERCENTAGES ARE BASED UPON THE NUMBER OF PERSONS SUBSCRIBING TO THE NUMBER OF PERSONS IN EACH DIVISION

97.33% OF FISK EMPLOYEES SUBSCRIBE FOR LIBERTY BONDS



941



ARMORY STORE?

The image shows three machine operators handling one of the military's artillery pieces presumably stored at the Michelin factory in Milltown during World War I.

15. Photograph of the interior of facilities at the Michelin Tire Co. in Milltown, c. 1917.



TESTIMONY. The image above is a group portrait of the French veterans from Middlesex County— as can be read on the banner, "Veterans Francaises Middlesex County"— posing in front of the facade of the French School in Milltown. Several of these men were employees of the Michelin Tire Co.

16. Photograph in the book *New Brunswick, New Jersey in the World War, 1917-1918*. published in 1921 (see bibliography).



WELCOME. The image on the right portrays the front page of the official events program for Welcome Home Day, organized to welcome and honor veterans and held on Saturday, September 27, 1919 in Milltown.

17. Cover of the booklet *Welcome Home Day*, September 1917.

When you get back to the good old U.S.A. remember the fighting help you have had from the good old MICHELIN TIRES

MICHELIN & Cie. - - Clermont-Ferrand (FRANCE)
 MICHELIN TIRE Co. - - Milltown, (N. J.), U. S. A.
 MICHELIN TYRE Co., Ltd. - Fulham Road

HUMOR FROM THE TRENCHES.

In order to inform and entertain American contingents of the American Expeditionary Forces stationed in France, various newspapers and booklets were published, such as *The Stars and Stripes* newspaper or the 32-page publication *Yank Talk*, which was sold at a price of one franc. It included humorous drawings and texts, funny stories and jokes compiled from the soldiers. The American Red Cross acquired 50,000 copies for distribution among the troops which led to the publication of the sequel, *More Yank Talk*.

On the back cover of the first issue was a Michelin advertisement. Bibendum's face, shown as a full moon, illuminated a convoy of transport trucks circling under a starry sky, in an illustration by Georges Hautot. The text, specifically targeting the American reader and client, explains: "When you get back to the good old U.S.A., remember the fighting help you had from the good old Michelin tires."

18-19. Back cover advertisement for Michelin and cover page of the magazine *Yank Talk*, 1917. Free gift of the American Red Cross.

FROM AMERICAN RED CROSS

YANK TALK

A REVIEW OF A.E.F. HUMOR - TRENCH AND BILLET
 PRICE, ONE FRANC

The Official Newspaper of the A. E. F.

The Stars and Stripes

By and For the Soldiers of the A. E. F.

THE STARS AND STRIPES, FRIDAY, JANUARY 8, 1919

SOLDIERS ORDER NOT TO DISCARD THEIR INSURANCE
The Department orders Study of Compensation Provisions

NEW FRANC CALL BLOWS FOR ORPHANS' FUTURE
FOR ORPHANS' FUTURE

VALSPAR
THE BOSTON WOL CO.

NEW YEAR'S GREETINGS TO "SOLDIERS" Men and Women in the A.E.F.

NEW-SKIN MICHELIN Illustrated GUIDE to the Battlefields
300 Illustrations or maps in each copy
Printed in English or in French
Price: 20 c. a copy
On sale at all Bookstores or at our Agents

AMERICAN RED CROSS
Are You Worried?
About not knowing from whom to buy?
About quality?
About quantity?
About delivery?
About anything at home you cannot see for yourself?

HOME SERVICE FOR SOLDIERS
American Red Cross
Mail Order Dept., Paris, France

NICE THE WINTER PALACE

When Prices Drop
Printed in English or in French
Price: 20 c. a copy
On sale at all Bookstores or at our Agents

AMERICAN LIBRARY ASSOCIATION
57 Varieties of Pure Food Products
An American house that has stood for quality and cleanliness in the making of foods and related for 50 years, with plants, farms, packing stations and warehouses in various parts of the world.

H.I. HEINZ Company
Pittsburgh, U.S.A.

LE PNEU MICHELIN
MOST L'ESTIMABLE

DRILLS, TAPS, DIES, HIGH SPEED CARBON STEEL MACHINE-TOOLS
BUTTEROSI

AMERICAN LIBRARY ASSOCIATION
57 Varieties of Pure Food Products
An American house that has stood for quality and cleanliness in the making of foods and related for 50 years, with plants, farms, packing stations and warehouses in various parts of the world.

H.I. HEINZ Company
Pittsburgh, U.S.A.

LE PNEU MICHELIN
MOST L'ESTIMABLE

AMERICAN BARBER SHOP

AMERICAN OFFICERS IN PARIS

WHERE TO SHOP IN PARIS
The Battlefields Department Store
AU PRINTEMPS

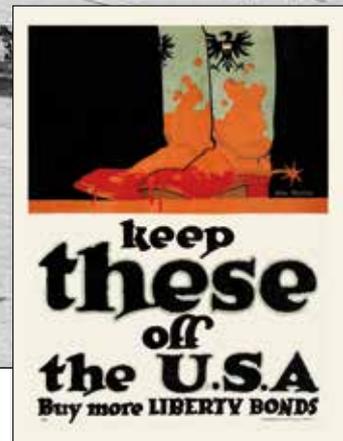
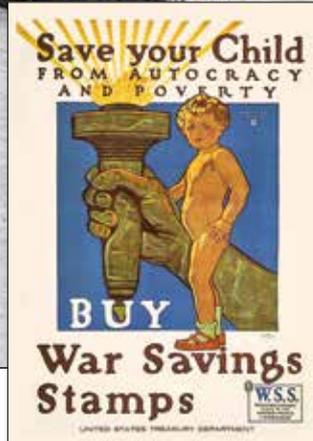
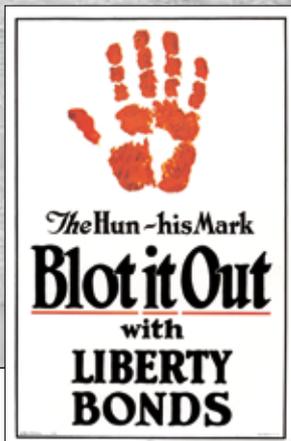
Michelin Tires
One Quality Only: The Best

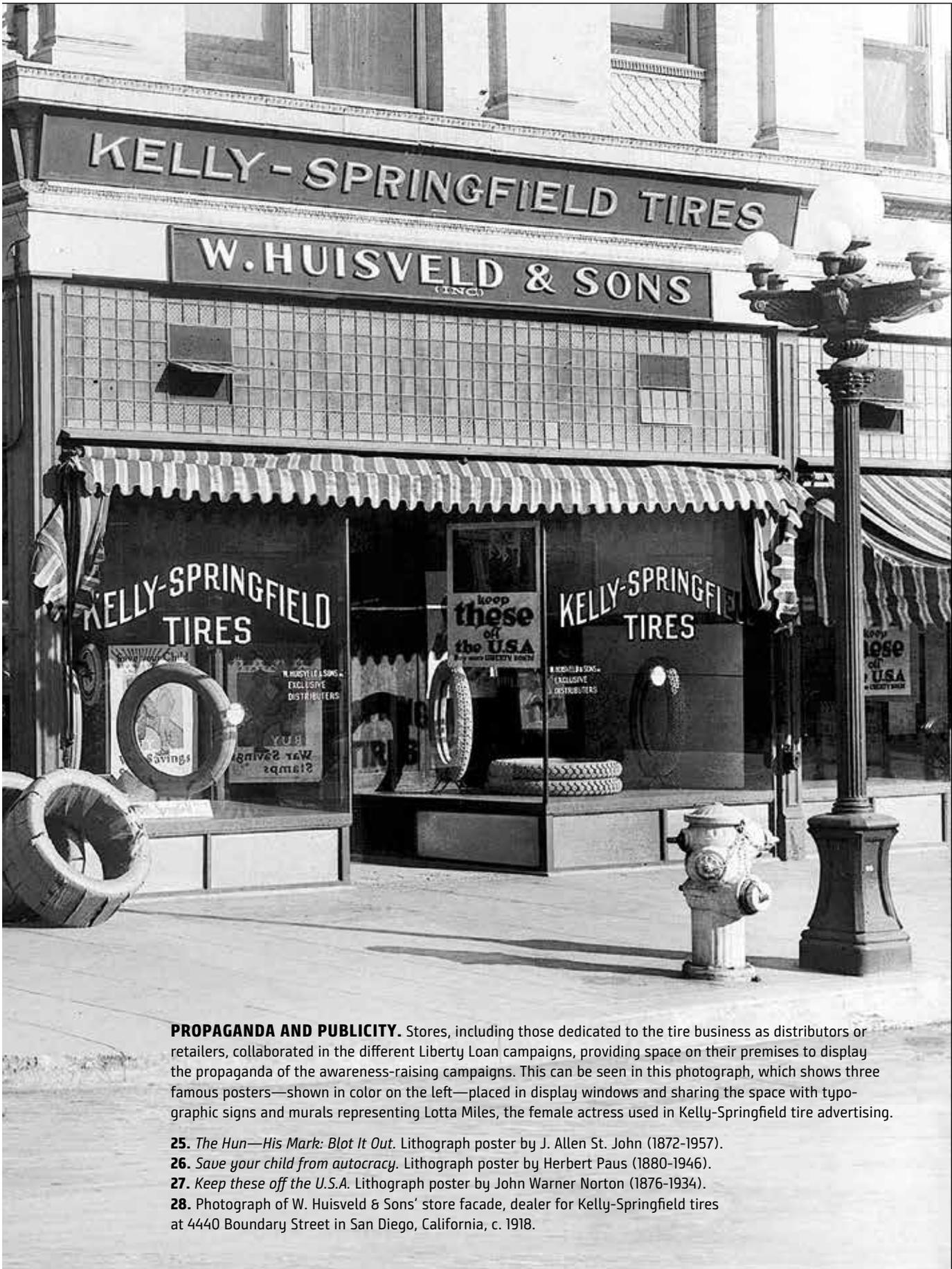


STARS AND STRIPES.

Michelin was one of the French companies competing alongside well-known American brands—tobacco, chewing gum, razor blades—for obtaining an advertising spot in *The Stars & Stripes* and capturing the attention of their readers. The weekly publication, with eight pages of articles and illustrations of diverse content, was published in France by the American Expeditionary Forces (A.E.F.), with the mission of transmitting patriotic messages and of uniting troops that were stationed there. It had a circulation of about 526,000, and was distributed for seventy-one weeks, beginning February 8, 1918 and ending June 13, 1919.

20. Header of *The Stars & Stripes*. 21-24. Interior pages of *The Stars & Stripes*, January 8, 1919, December 13, 1918 and January 10, 1919, and detail of a Michelin advertisement with artwork by O'Galop.





PROPAGANDA AND PUBLICITY. Stores, including those dedicated to the tire business as distributors or retailers, collaborated in the different Liberty Loan campaigns, providing space on their premises to display the propaganda of the awareness-raising campaigns. This can be seen in this photograph, which shows three famous posters—shown in color on the left—placed in display windows and sharing the space with typographic signs and murals representing Lotta Miles, the female actress used in Kelly-Springfield tire advertising.

25. *The Hun—His Mark: Blot It Out.* Lithograph poster by J. Allen St. John (1872-1957).

26. *Save your child from autocracy.* Lithograph poster by Herbert Paus (1880-1946).

27. *Keep these off the U.S.A.* Lithograph poster by John Warner Norton (1876-1934).

28. Photograph of W. Huisveld & Sons' store facade, dealer for Kelly-Springfield tires at 4440 Boundary Street in San Diego, California, c. 1918.



Sterling Tires in France

This photograph was made in January, at Base Hospital No. 1, at Neuilly (Paris). Ambulances at base hospitals and at the Front were, from the beginning, largely equipped with Sterling Tires. We are very proud of the evidence we have that thousands of them made good, under what was probably the severest strain ever put upon tires—bad roads, heavy loads, high speed, and no time for care. The big Sterling Truck Tires have proportionately the same sturdy strength that has made their little brothers give such marvelous mileage on small and medium size cars and trucks.

35 x 5—36 x 6—38 x 7—40 x 8

These are the sizes for truck use on long hauls over bumpy roads. Day after day, year in and year out, they carry heavy loads of

Factory: Rutherford, New Jersey

Sterling Tires to our own branches—Rutherford to Washington—Rutherford to Rochester—Rutherford to Boston. We know what they do for us—so we know what they will do for you.

Built of superstrong cord fabric in many layers, thickly impregnated with the Sterling rubber compound that knows no parting. Air bag cured—long time cured—three or four times as long as many tires. And long cure means long wear—if the rest is right. No short cure tire can wear long.

The Vacuum-Bar Tread holds the road and makes chains needless except in severest conditions.

*Any good dealer will get Sterling Tires for you—
or you can write or phone our nearest branch*

Export Department: 44 Whitehall Street, New York

Direct Factory Sales Branches:

ALBANY, N. Y.
BALTIMORE, MD.
BOSTON, MASS.
BRIDGEPORT, CONN.
BROOKLYN, N. Y.

BUFFALO, N. Y.
CHICAGO, ILL.
CINCINNATI, OHIO
CLEVELAND, OHIO
COLUMBUS, OHIO

DAYTON, OHIO
DETROIT, MICH.
HARTFORD, CONN.
INDIANAPOLIS, IND.
JERSEY CITY, N. J.

KANSAS CITY, MO.
LOUISVILLE, KY.
MILWAUKEE, WIS.
NEWARK, N. J.
NEW HAVEN, CONN.

NEW YORK, N. Y.
PATERSON, N. J.
PHILADELPHIA, PA.
PITTSBURGH, PA.
PROVIDENCE, R. I.

READING, PA.
ROCHESTER, N. Y.
RUTHERFORD, N. J.
SPRINGFIELD, MASS.
ST. LOUIS, MO.

SYRACUSE, N. Y.
TOLEDO, OHIO
WASHINGTON, D. C.
WORCESTER, MASS.

Sterling Tires



ON FRENCH SOIL ... WITH AMERICAN TIRES.

As stated in the text of the above advertisement and shown in the photograph, numerous ambulances based at American military hospitals and circulating on the French front did so equipped with Sterling tires. Sterling-brand inner tubes and pneumatic tires were originally produced by the Rutherford Rubber Company—founded January 16, 1908—based in the town of Rutherford, New Jersey. The firm eventually became the Sterling Tire Corporation, which in 1919 had dealerships in 34 of the country's major cities.

29. Full page advertisement published in *The Saturday Evening Post*, May 17, 1919.

Swinehart Tires



When his hat was in the ring

A true story about tires and the war

ABRAMHAM LINCOLN wasn't talking about Uncle Sam exactly, when he said: "You can fool some of the people all of the time, and all of the people some of the time, but you cannot fool all of the people all of the time." And yet the same old principle applies: you can't fool Uncle Sam—at all. Not even on tires, as the whole world found out when Uncle Sam put in his order for the best that his money could buy. He wanted nothing but the best for the terrific service "over there."

NOW let us tell you what happened—this is the story. The Government placed orders for tires—tremendous orders; tires for trucks, tires for ambulances, tires for officers' automobiles. And the factories went to work. They worked night and day to meet the Government demands. And then the deliveries began; carloads and trainloads of tires. Tens of thousands of them. Akron led the nation in this gigantic task. And so the tires were turned over to the Government and it was assumed that the job was done. But not so—Uncle Sam took it into his head to inspect those tires, and when it comes to inspecting, your Uncle Samuel is some inspector. He inspected every tire in all that tremendous consignment, and if there was a single one that didn't look good to the sharp eyes under the old beaver hat, it was thrown out, refused point-blank and sent back bodily.

Swinehart Ideal Cellular Truck Tires
The angle, depth, and width of the cells or holes in this remarkable tire are scientifically correct. This patented construction provides sufficient resiliency to make this tire ideal for truck use. Stone and potholes in Pneumatic truck tires are usually fatal. The Swinehart Cellular practically eliminates this danger and makes the use of a spare tire really unnecessary. This construction also makes the tire anti-skid and non-leaking. The many advantages are obvious.

Let your next tires be Swinehart—or see that your new Truck or Car is equipped with them.

And now comes the point: out of thousands and thousands of solid and pneumatic tires shipped by Swinehart Tire & Rubber Co. on Government order there was not one single rejection. Not one. Not one. Not one. Every tire that bore the Swinehart name had in it the integrity of Swinehart manufacture and Swinehart stamina, and was accepted. Every Swinehart tire delivered to the Government stood the test and stayed sold. If you've ever had any experience in dealing with the Government of the U. S. A., you will need no added argument from us to emphasize the moral of this story. It is as conspicuous as it is significant. Swinehart Tires are all that good tires can be; they *wear—and wear—and wear*. The proof of the facts set forth in the foregoing story, from Government officials, will be sent to you upon request.

Swinehart Pneumatic Tires
Back of every Swinehart Pneumatic Tire is the integrity of the Swinehart Co., the brains of the men who produced it, the skill of the workmen who wrought the finished product, and the quality of the materials that went into it. And after all these are the only essentials in the making of good tires, there are no second "ticks" in the system. Swinehart Pneumatic Tires are made in both Cord and Fabric—both give more guaranteed miles for your money than you would ever expect or even have a right to expect.



Hexagon
Tread

DEALERS: There may be an opening for a dealer in your territory. Better inquire now.

THE SWINEHART TIRE & RUBBER CO., AKRON, OHIO

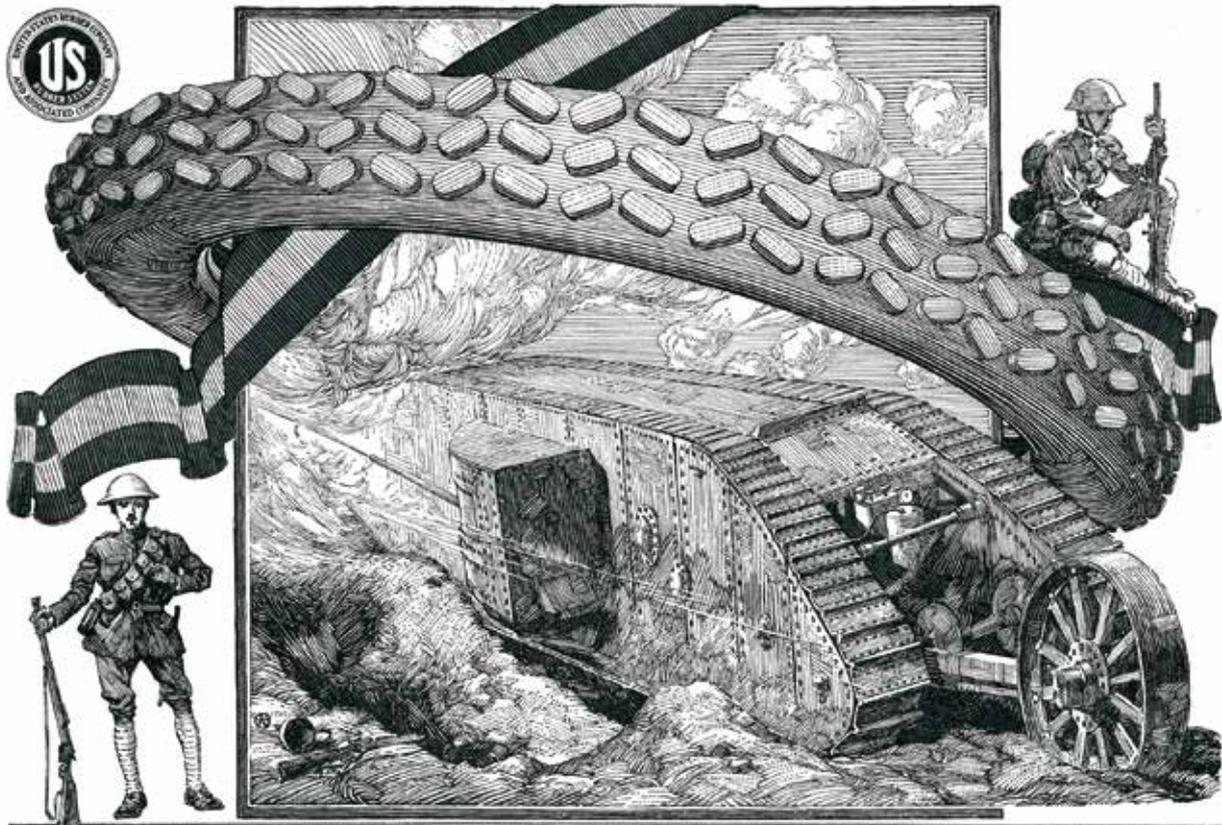


Ribbed
Tread

-they Wear-and Wear-and Wear-

THE HAT IN THE RING. The expression "hat in the ring" means being involved in a conflict, entering into combat, applying the traditional habit in the world of boxing when one become an opponent after challenging the boxer by throwing a hat into the boxing ring. The characteristic top hat of Uncle Sam inside a hoop—played on this other meaning of the word ring—became the emblem on airplane fuselage popularized during 1917-1918 by the first completely American air squadron—the 94th Pursuit Squadron—stationed and trained in France to fight the Germans from the air. After the war, the Swinehart company, created in 1904 in Akron, revived this popular emblem changing the hoop for a rim fitted with one of their solid rubber tires. The text of the advertisement highlights that in spite of the severe quality controls carried out by the technical experts of the administration, "out of thousands and thousands of solid and pneumatic tires shipped by Swinehart Tire & Rubber Co. on Government order there was not one single rejection. Not one."

30. Full page advertisement published in *The Saturday Evening Post*, July 26, 1919.



Irresistible Grip of the 'Nobby'

Because the farm tractor could make almost unbelievable hauls over almost unbelievably bad ground, it went to the battlefields of Europe transformed into a "land battle-ship"—the "tank."

Exactly the same irresistible ground-gripping principle characteristic of the farm tractor and the battle "tank", gives the *United States 'Nobby' Tread Tire* its anti-skid fame.

*A Tire for Every
Need of Price and
Use—
'Nobby' 'Chain'
'Royal Cord'
'Usco' 'Plain'*

The big, thick, tough protuberances on the tread of the '*Nobby*' grips the road surface with exactly the same unswerving tenacity of the tractor.

And not only is the '*Nobby*' famous as the tire having the greatest traction and the greatest resistance to skidding,

—but it is equally famous for its power to endure—to wear to the point of lowest mileage cost.

It wears and wears, and continues to wear until, after full and plus-full mileage is obtained, it wears out, not in parts, but as a whole.

Exactly the same structural and material endurance of the '*Nobby*' goes into the making of the four other *United States Tires*.

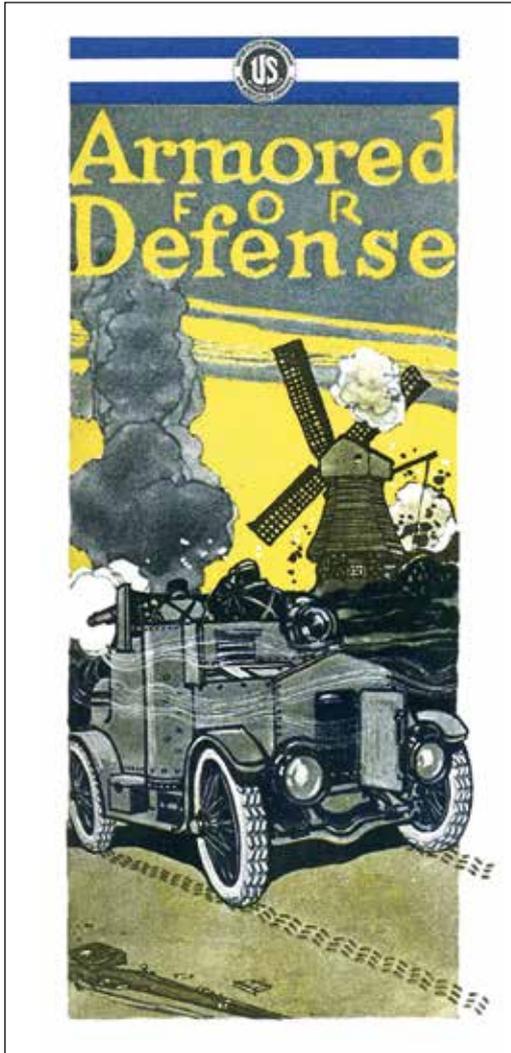
'*Nobby*', '*Chain*', '*Usco*', '*Royal Cord*', and '*Plain*'—each is a type of low-mileage-cost tire—one for every need of price and use.

United States Tires Are Good Tires

*United States Tubes
and Tire Accessories
Have all the Sterling
Worth and Wear that
Make United States
Tires Supreme.*

TANK-LIKE. The powerful United States Rubber, a leader in the rubber industry and tire sector via the United States Tire Company, soon launched an intense advertising campaign utilizing images and claims alluding to the war effort deployed by the U.S. military. Without explicitly referring to their position as one of the companies favored by government contracts, their advertisements established constant comparisons between the requirements of soldiers and motor vehicles subjected to the harsh conditions of warfare and the satisfactory responses their tires provided for civilian and private use. In this example, "Exactly the same irresistible ground-gripping principle characteristic of the farm tractor and the battle 'tank', gives United States 'Nobby' tread tire its anti-skid fame."

31. Full page advertisement published in *The Saturday Evening Post*, May 26, 1917.



32. United States Tires advertising brochure showing an armored car equipped with Nobby tires taking part in a battle on European territory, c. 1918.

33. Advertisement in *Popular Science*, September 1918.

34. Advertisement in *The Saturday Evening Post*, 1918.

35. Advertisement in *The Literary Digest*, September 28, 1918.



United States Tire Company
1790 Broadway, New York

Honored!!

"Up for honors and the French 'Croix de Guerre.'

"Five of us started through that hell of Boche fire—one got over.
"A message delivered to the Colonel in charge sent a thousand
"Frenchies' marching to strengthen our front.
"To this day I lay the success of my errand to the fine condition of
machine and equipment.
"USCOS' will guide you through many
a tight place."

Jim Fleet

DEALERS—'USCO' reputation
will add dignity to your line.

United States Tire Company
1790 Broadway, New York

Jim Fleet Says:

"No. 65 had seen active 'overseas' service with Sims, and the sealed orders
I handed her commander added more glory to her record, when off the Virginia
Capes, three days later, she bagged another submarine.
"This time it was the speedy Army motorcycle linked with the Navy depth-
bomb, that proved to Fritz that equipment made in the U. S. A. could show subs
the bottom.
"In the service, 'USCO' MOTORCYCLE TIRES, insure safe
runs and true deliveries."

Jim Fleet

Dealers: Stock a wartime line
that has an excellent reputation
for endurance.

United States Tire Company
1790 Broadway, New York

Behind the Lines!!

"In comfortably enclosed compartments
mounted on big, rubber tires—the more seriously
wounded are carried quickly and care-
fully to the nearest dressing station.
"Many a man owes his life to this humane
method of transportation.
"USCO' MOTORCYCLE TIRES are
playing a conspicuous part all over the world."

Jim Fleet

Dealers: Order your stock of
'USCOS' now. Delays might
prove costly.

United States Tire Company
1790 Broadway, New York

Jim Fleet Says:

"In wartime, the safe destination of sealed orders must be assured—the swift land
courier must ride on dependable equipment.
"All errands of importance should be doubly guarded against delay.
"Sturdy 'USCO' MOTORCYCLE TIRES have a reputation for making fast riding
safe and comfortable."

Jim Fleet

POPULAR 'USCO' MOTOR-
CYCLE TIRES insure big
dealer's profits.

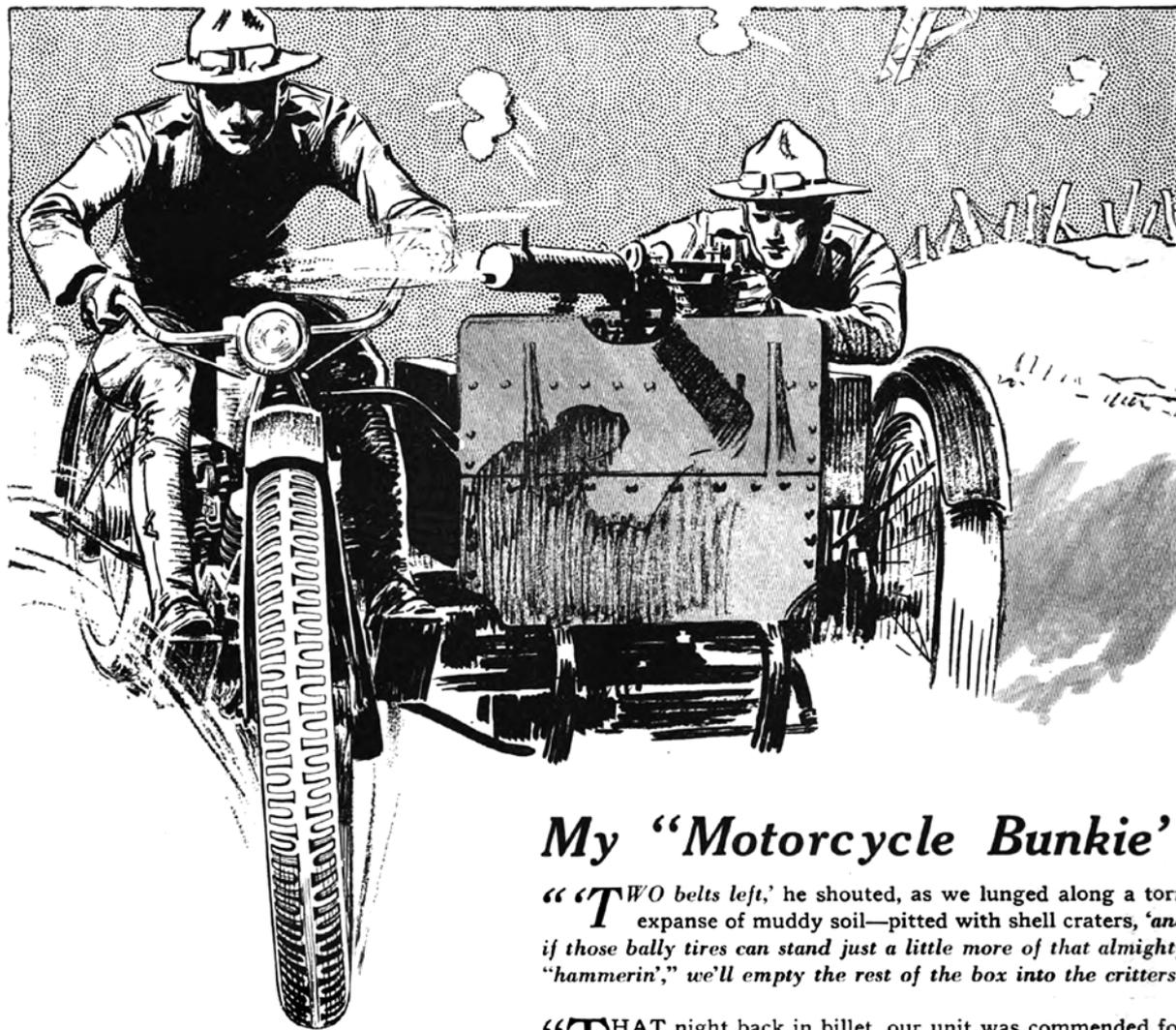
THE SOLDIER JIM FLEET. The United States Tires started a campaign in March 1918—lasting until July 1919—to advertise their motorcycle tires. The advertisements featured Jim Fleet—a fictional character created as an archetype of the American soldier fighting in the Great War—turned into a hero decorated for his heroic acts, and always riding his motorcycle. The advertisements included a quoted and signed text reflecting the hero's statements. After the end of the hostilities, Jim Fleet returned to his civilian life, appearing in advertisements carrying out and enjoying sports activities such as baseball, fishing and hunting. And in other leisure activities he is portrayed—always with his inseparable motorcycle—, performing circus-like jumps, challenging a speedboat to a race from the banks of a river, or a train, alongside the railroad tracks.

36-39. Advertisements in the magazine *Motorcycle and Bicycle Illustrated*, August 8 and 22, September 12 and 19, 1918.

United States Tire Company

1790 Broadway,

New York



My "Motorcycle Bunkie"

"*TWO belts left,*" he shouted, as we lunged along a torn expanse of muddy soil—pitted with shell craters, *'and if those bally tires can stand just a little more of that almighty "hammerin'," we'll empty the rest of the box into the critters.'*

"*T*HAT night back in billet, our unit was commended for *'bravery and consistent action under fire.'* Looking up from his polishing job and gradually straightening to his six feet two—my motorcycle bunkie shifted his quid and appeared interested.

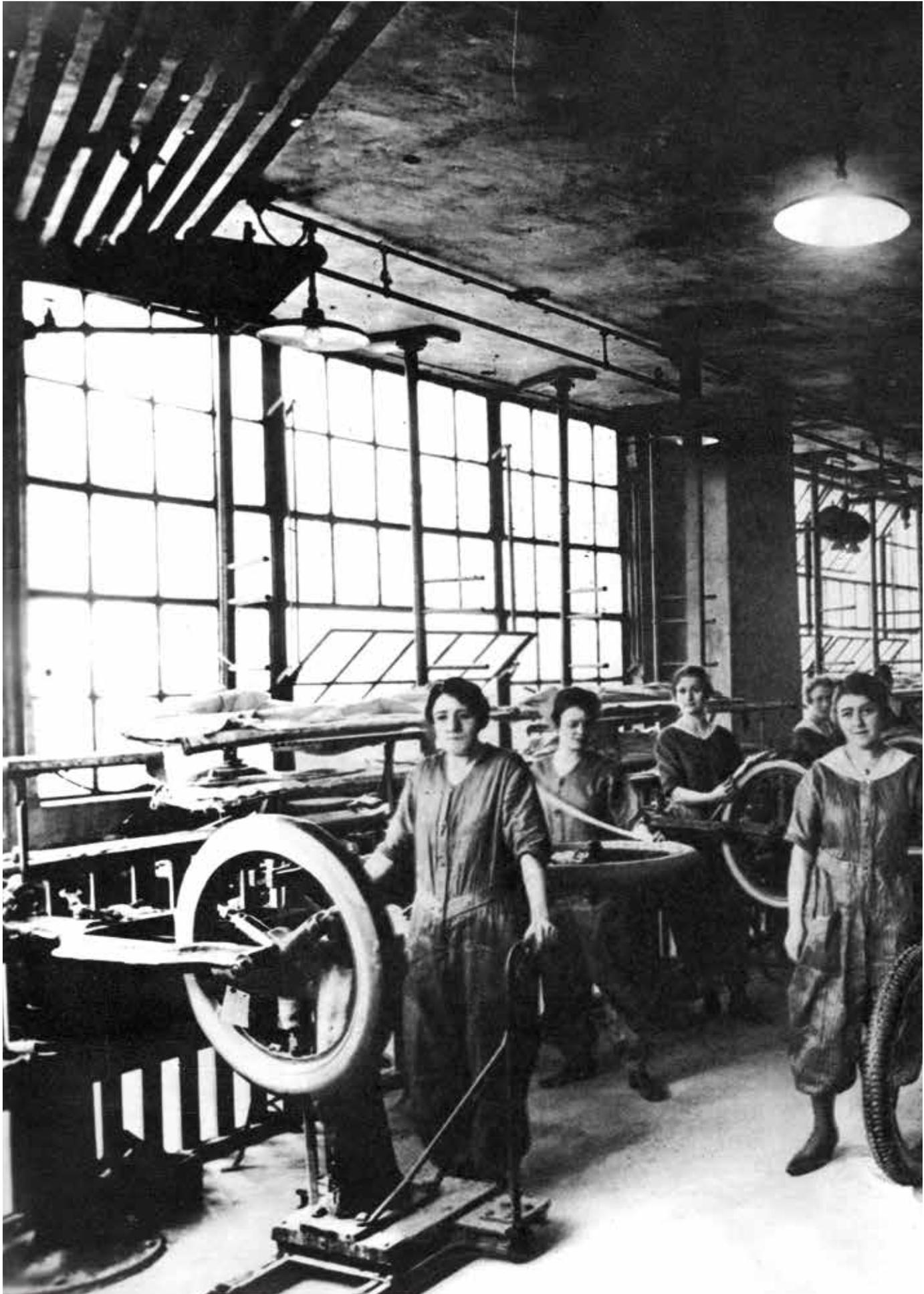
"*'Say, Jim,'* he piped with a knowing wink, tapping the machine with one big finger, *'If Headquarters means to get soft over our little party out in front today—I'm going to recommend a certain pair of tires for the "Iron Cross"—Get me!'*"

Even on the firing line 'USCO Motorcycle Tires' have made friends.



Get a reputation for handling quality goods—and watch your profits increase.

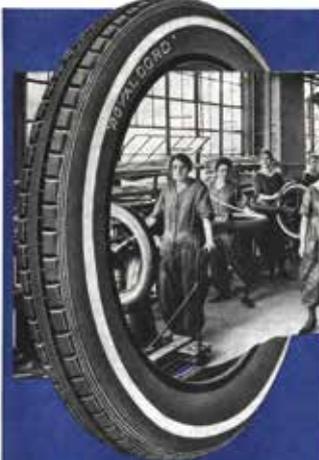
Jim Fleet





24 THE SATURDAY EVENING POST March 9, 1918

Women and the War



MANY months before our country cast its lot with the Allies, the United States Tire Company anticipated the desirability of utilizing the services of American women in manufacturing tires.

In the great factories where the United States Tires are made, short, nimble-fingered women are emulating their sisters of England and France—performing some of the heavier work formerly assigned to men.

Over 2,000 of our men are now in khaki or navy blue. They will fight the thing through, with ardor and other good Americans.

Meanwhile, women are carrying on a share of the work.

Our advanced methods of manufacture have made it comparatively simple for us to make this vital change.

Process developed to the point of perfection subordinating human equations, and precluding error, guarantees the uniform and balanced product that gives infinite satisfaction to users of United States Tires.

By taking over work for which they are thoroughly trained, our women employees release men for the heavier factory jobs.

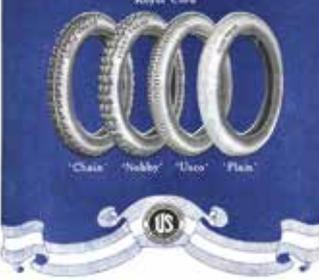
This enables us to accomplish the herculean task of speeding up production to meet the ever growing demand for United States Tires.

—the demand that has phenomenally increased the sales of United States Tires month by month for the last two years.

United States Tires are Good Tires

Also Tires for Motor Trucks, Motorcycles, Bicycles and Aeroplanes.

United States Tube and Tire Accessories Have All the Stuff Worth and Wear that Make United States Tires Superior.



DOUBLE SHIFT.

Faced with a shortage of male labor, women took their place in the different production processes and tasks hitherto reserved almost exclusively for men, such as driving transport trucks and ambulances. In the rubber and tire industries, the presence of women was already commonplace prior to the First World War. However, their function was reserved for specific tasks, productive responsibilities that expanded during the period of war. The United States Tires company wanted to portray that reality and pay homage to these women in a specific campaign where, in addition to newspaper advertisements, posters and photographs like the one shown here were also distributed.

41. Advertisement in *The Saturday Evening Post*, March 9, 1918.

42. United States Tires promotional photograph, distributed during the campaign and property of the Western Newspaper Union in New York.

United States Tires are Good Tires

'Usco'
Tread



War Has Multiplied the Value of Good Tires

Never were cars so necessary—both in business and domestic life.

Never was their continuous and economical use so imperative.

Never was freedom from tire trouble and tire expense so absolutely essential.

The rapidly growing demand for United States Tires prove their war-time worth.

Thousands of motorists each week are turning to United States Tires to

get dependability and economy.

United States Tires last longest and carry you farthest at least cost.

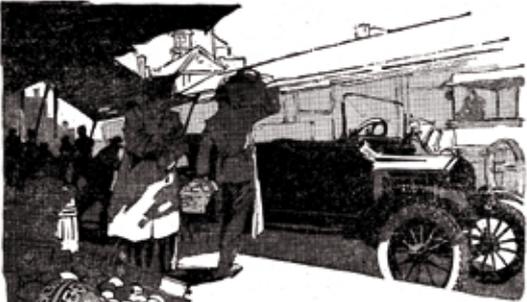
They enable you to make the most of your car—passenger or commercial—*now*, when it is more than ever a vital war-time necessity.

There is a United States Tire for every possible need.

Our nearest Sales and Service Depot will tell you which ones you should have.

A complete stock of United States Tires is carried by the following Sales and Service Depots

JOHN N. TAYLOR GARAGE Columbia, Mo.



War-Time Responsibility— Yours and Ours

National necessity has put a new responsibility on every motorist.

Utmost service is demanded—the highest usefulness of yourself and your car.

Service and economy are your only considerations.

Our responsibility goes hand in hand with yours.

As the largest rubber manufacturer in the world, it is our duty to supply you with tires of unflinching reliability and extreme mileage.

United States Tires are more than making good in this time of stress.

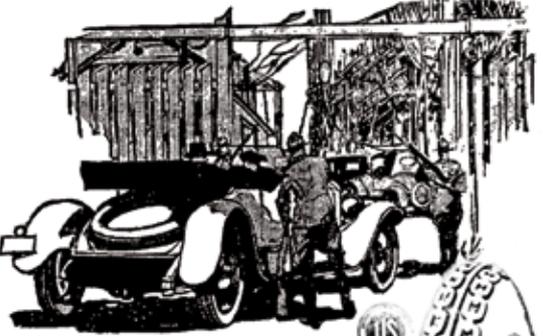
They are setting new mileage records—establishing new standards of continuous service—effecting greater economy by reducing tire cost per mile.

There is a United States Tire for every car—passenger or commercial—and every condition of motoring.

The nearest United States Sales and Service Depot dealer will cheerfully aid you in fitting the right tire to your needs.

United States Tires are Good Tires

A complete stock of United States Tires is carried by the following Sales and Service Depots
Caley Hardware Co. J. H. Hoffman



The War-Time Value of Good Tires

Your car is a vital war-time necessity if you make it contribute to war work and war service.

Make it give the limit of service.

But don't add one extra dollar to your driving expenses.

War-times makes economy imperative. Practice it in operating your car or truck.

Keep down your tire costs.

Use good tires—United States Tires.

Increasing thousands are recognizing the war-time value of United States Tires.

They are getting away from haphazard tire buying.

They are buying mileage—choosing tires that give most miles per dollar.

United States Tires offer supreme dependability and unapproached economy.

There are five different types of United States Tires—one for every possible need.

The nearest United States Sales and Service Depot dealer will tell you which one will serve you best.

United States Tires are Good Tires

A complete stock of United States Tires is carried by the following Sales and Service Depots
JOHN N. TAYLOR GARAGE Columbia, Mo.

RUBBER SAVING TIMES.

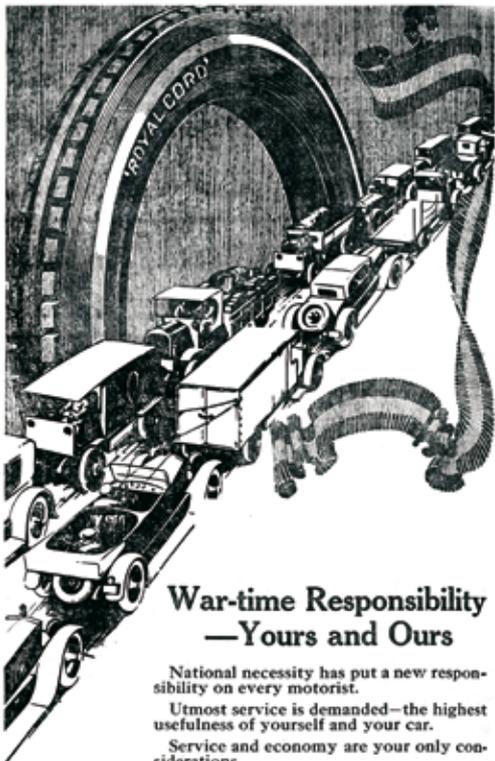
The positioning of each American citizen's individual responsibility to avoid wastage in times of war was intensely utilized by the United States Tire Company. Investing in the tires of their brand was a way to ensure extended service due to their quality. This double page shows different advertisements from the same campaign, inserted in local press by the respective independent dealerships associated with the tire manufacturer's commercial network.

43. (opposit page) Advertisement published in *The Evening Missourian*, June 13, 1918.

44. Advertisement in *The Princeton Union*, June 6, 1918.

45. Advertisement in *The Evening Missourian*, June 27, 1918.

46. Advertisement in *The Ogden Standard*, May 16, 1918.



War-time Responsibility —Yours and Ours

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Utmost service is demanded—the highest usefulness of yourself and your car.

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They are setting new mileage records—establishing new standards of continuous service—effecting greater economy by reducing tire cost per mile.

There is a United States Tire for every car—passenger or commercial—and every condition of motoring.

The nearest United States Sales and Service Depot dealer will cheerfully aid you in fitting the right tire to your needs.

United States Tires are Good Tires

Ogden Storage Battery Co. 2466 Grant Ave.
 Sales & Service Depot

Victory

Nothing so certainly signifies victory for **United States Tires** as their continued, amazing sales increases day by day and month by month during the last two years.

Nothing but quality—miles piled on miles to the point of lowest mileage cost—could possibly account for that great big fact.

There are five types of **United States Tires** for you to choose from—one for every need of price and use,
—the '**Royal Cord**', the '**Nobby**', the '**Chain**', the '**Usco**' and the '**Plain**'.

Consult our nearest **Sales & Service Depot** as to which one of the five will give you victory over tire mileage.

United States Tires
Are Good Tires

United States Tubes and Tire Accessories have all the sterling worth and wear that make United States Tires supreme.

Also Aeroplane Tires

VICTORY! This allegorical victory scene depicting the end of World War I was employed by the United States Tires company as an analogy to their success in sales made over the balance of the past two years (1916-1917). In front of the Statue of Liberty, two representatives of the army and navy pay homage to those who have fought for the freedom and independence of the United States throughout its history, and who are contemplating them from the clouds.

47. Advertisement published in *The Saturday Evening Post*, July 7, 1917. Signed with an unknown monogram.

8 MOTORCYCLE AND BICYCLE ILLUSTRATED December 20, 1917





WHERE QUALITY IS VITAL

Where tires of supreme wearing qualities, great resiliency and real anti-skid efficiency are a vital necessity, there you will find motorcycles equipped with **United States Tires**.

On army motorcycles; commercial side and rear car outfits; on machines of the great record-makers on both track and cross-country rides against time; on all machines undergoing strenuous service, you will find a majority of **United States 'Usco's'**.

Which proves one thing—that they are the tires for the wise dealer to specify—the tires that assure the biggest profits—the tires that mean greatest satisfaction to your customers.

United States Tire Company
1790 Broadway, New York

8 MOTORCYCLE AND BICYCLE ILLUSTRATED January 10, 1918





SERVICE

All the tests of time, distance and endurance have been applied to **United States 'Usco' Motorcycle Tires**—and they have stood all these tests on innumerable occasions.

—till today where hard service is required, where endurance is essential, where safety is vital, you will find motorcycles equipped with **United States 'Usco's'**.

Our intrepid modern messenger of war—the soldier motorcyclist—stands out with the daring bird-man, as the acme of endurance. His machine and its tires must have all the qualities that the word **service** stands for.

And it is this soldier messenger, as well as all other motorcyclists, that need the super-qualities of endurance, resiliency and anti-skid efficiency for which **United States 'Usco's'** are famous.

Specify them! All prominent manufacturers will equip your machines with **United States 'Usco's'** upon request.

United States Tire Company
1790 Broadway, New York

10 MOTORCYCLE AND BICYCLE ILLUSTRATED January 17, 1918





VICTORY

Nothing so certainly signifies victory for **United States 'Usco' Motorcycle Tires** as their continued amazing sales increases day by day and month by month.

Nothing but quality—miles piled on miles to the point of lowest mileage cost—could possibly account for the great big fact.

Time has proved that **United States 'Usco's'** are the tires that stand up superior for hard-working side-car outfits—the most strenuous work to which anyone can put a motorcycle tire.

If this is true—and it is—are not these the tires that are going to give the greatest satisfaction to your customers? Then always specify them when ordering machines!

United States Tire Company
1790 Broadway, New York

8 MOTORCYCLE AND BICYCLE ILLUSTRATED January 24, 1918





It is by unusual work that the **United States 'Usco' Motorcycle Tire** has won its popularity among dealers and users.

- by its superior resistance to roads that have been ripped and torn by wind and rain and shells,
- by its greater lasting qualities in cross-continent runs against time over every sort of road,
- by its greater mileage, greater speed, greater resiliency and greater anti-skid efficiency over the highways of the country.

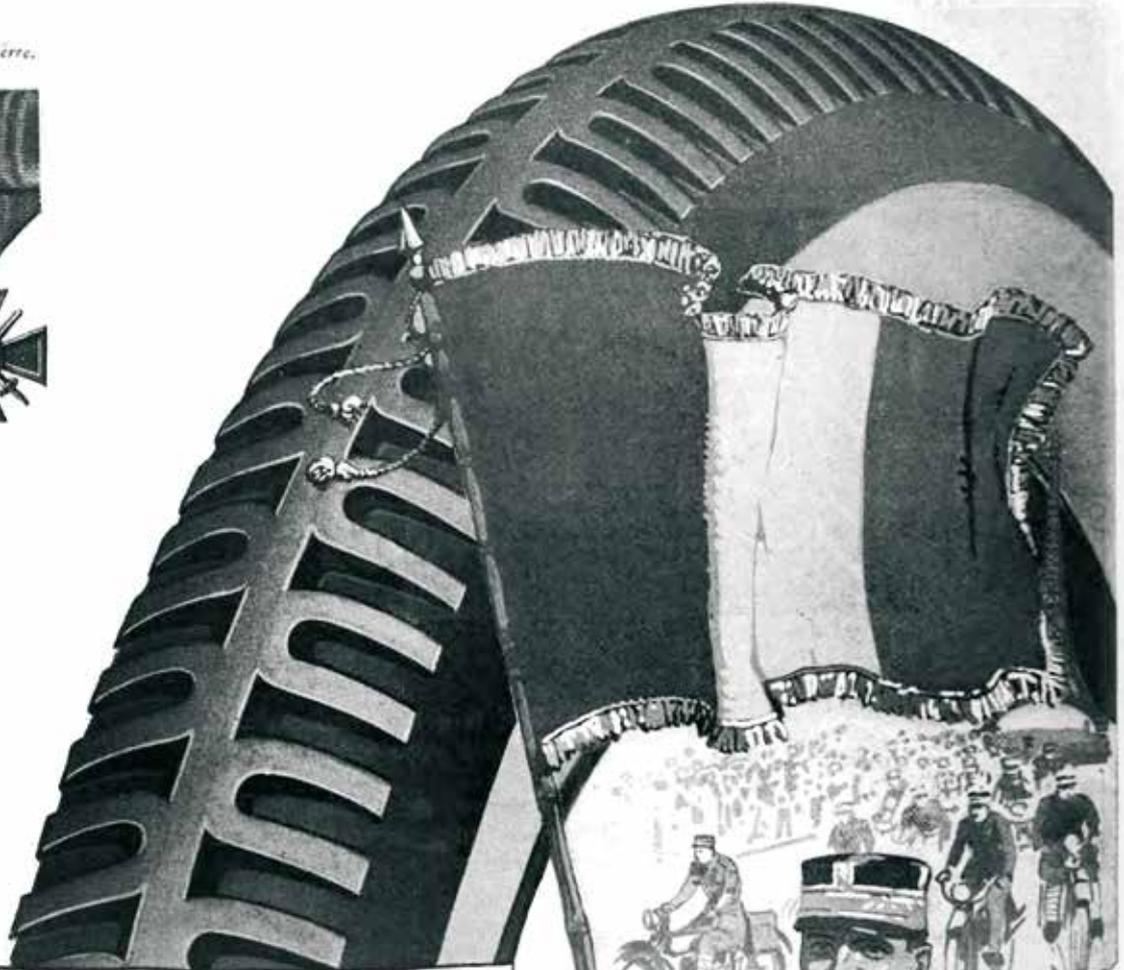
The rapid increase in the sales of **United States 'Usco's'** are only an additional proof that these are the tires for you to specify when ordering your stock of machines.

United States Tire Company
1790 Broadway, New York

ABOARD TWO LIFESAVERS. The utilization of motorcycles as a transport vehicle and weapon of war on the battlefield depended on the performance of their tires on rough terrain. The U.S. Tire Company's motorcycle tire division was promoting their Usco pneumatic tires with the types of images depicted in the campaign examples presented here, which were published in the leading magazine of the motorized two-wheeler sector.

48-51. Advertisements in *Motorcycle and Bicycle Illustrated*, December 20, 1917; January 10, 17 and 24, 1918.

Croix de Guerre.



Flags of Our Allies—No. 1.

France

THE French tricolor, ever unfurled for a just cause, consists of three perpendicular bars of blue, white and red.

Its origin has been assigned to America's friend, Lafayette,—the colors being patented after a cockade worn by the French National Guard at the capture of the famous Bastille.

Still another theory combines the victorious blue banner of St. Martin, the red oriflamme of St. Denis—flown by the French Kings after Paris became capital of France—and the spotless white banner of Henry IV, first of the Bourbon Monarchs.

France today throws her colors to the world, proud of a sacrifice that terminated in freedom, justice, and a world's peace.

"Uso" Motorcycle Tires.





FLAG-BEARERS. This advertising campaign of the United States Rubber Company was a tribute to the Allied forces winning the war, represented by France, England, Italy, Belgium and Japan. In each case, the general text is dedicated to explaining the meaning and genesis of the corresponding national flag carried by soldiers of the different armies. The only advertising reference is a brief footnote in the text, "USCO Motorcycles Tires", in addition to the circular emblem stamped at the bottom right corner of each image.

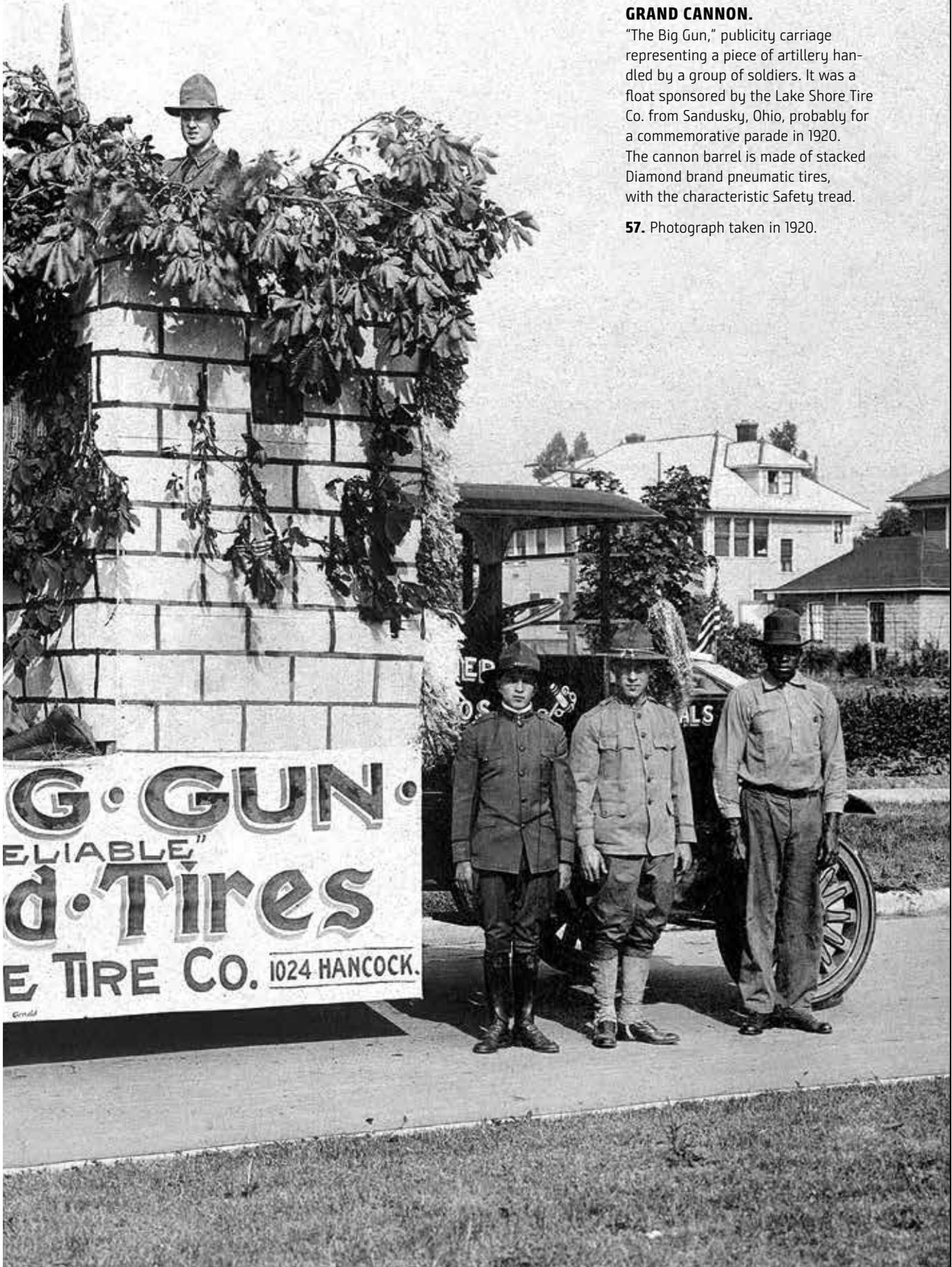
53-56. Advertisements in *Motorcycle and Bicycle Illustrated*, February 13 and 27, March 20 and April 3, 1919.

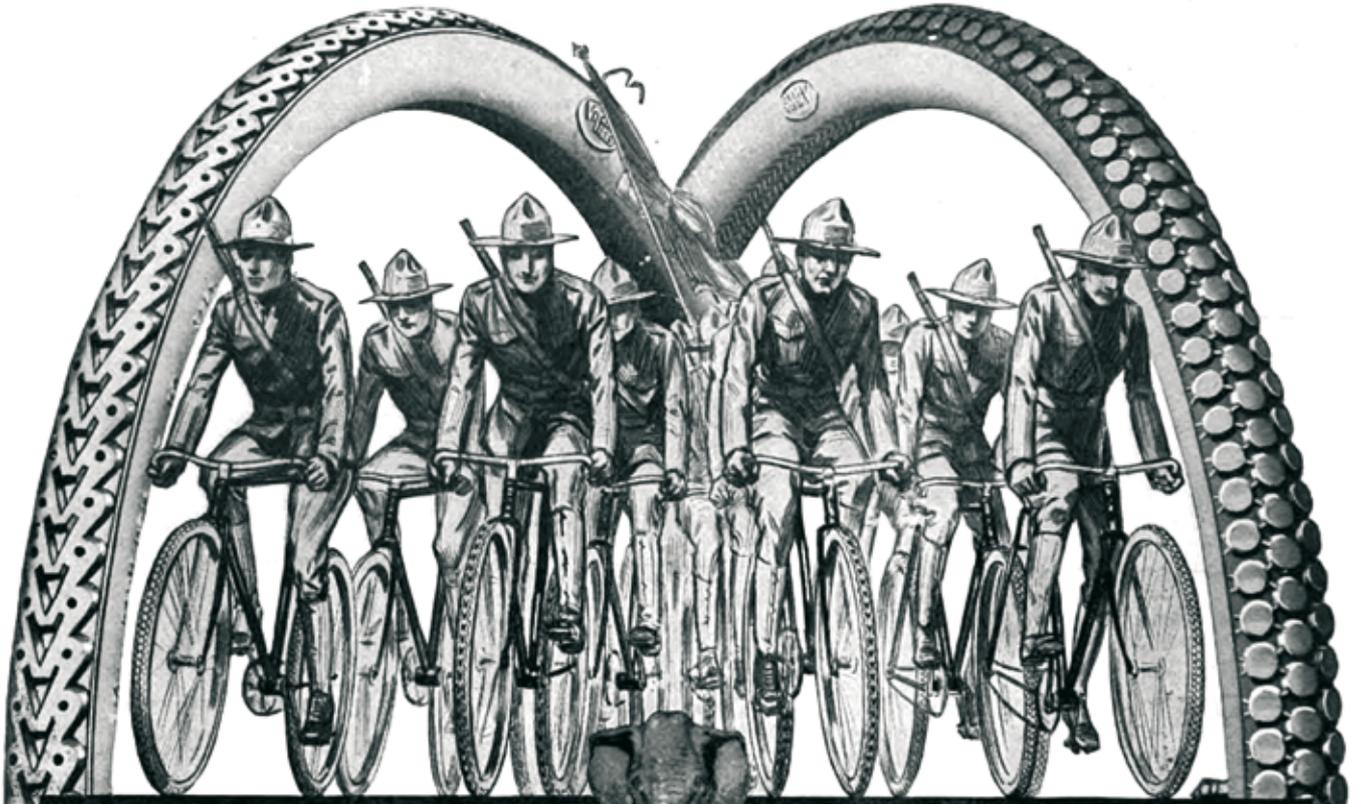


GRAND CANNON.

"The Big Gun," publicity carriage representing a piece of artillery handled by a group of soldiers. It was a float sponsored by the Lake Shore Tire Co. from Sandusky, Ohio, probably for a commemorative parade in 1920. The cannon barrel is made of stacked Diamond brand pneumatic tires, with the characteristic Safety tread.

57. Photograph taken in 1920.





Tougher Than Elephant Hide

FORWARD VITALICS!

The strength and dependability of Vitalic Tires fit them supremely for the hardest usage. The tire that's equal to war's wear and tear, is assuredly the tire that will suit the riders of your vicinity.

VITALIC **Bicycle Tires**

The adoption of Vitalics as standard equipment by many of America's foremost bicycle manufacturers speaks volumes for Vitalics.

Do the wheelmen in your community know that Vitalics deliver longer mileage and an amazing freedom from punctures and blow-outs?

Keep the Vitalic window-display where it can't be missed, and send for a fresh supply of Vitalic booklets.

The Vitalic line is complete. It answers every merchandising requirement in bicycle tires. There's a Vitalic for every purse and purpose. They hold your customers because they deliver the goods. There's not a weakness in the whole line of Vitalic Tires. Send today for the 1918 Vitalic dealer proposition, and learn why Vitalics suit everyone from soldiers down to schoolboys.



Continental Rubber Works, Erie, Pa.

108 THE SATURDAY EVENING POST May 18, 1918

Put This War-Tire on your Bike

War-time calls for war-tires. Vitalics are war-tires in every sense of the word. They contain all the fleet, rugged toughness required in the hard grind of the bicycle squad at the front.

Put Vitalics on your wheel. They will make you jump joyously into the saddle and keep yourself fit and hardy for your share in the war when your time comes—if it does come.

The famous Vitalic De Luxe has struck a big, new note in bicycle tires. It is an automobile tire in virtually everything but size. We build it with the same care and with the same choice rubber and stalwart fabric that goes into auto tires.

VITALIC Bicycle Tires

This great tire has been adopted as standard equipment by the foremost bicycle manufacturers. It is everything that we know how to build into a long-mileage, puncture-resisting, smooth, fleet, non-skid bicycle tire. It is the favorite tire with the most experienced riders everywhere. It stays in service long after inferior tires have petered out. Its rugged riding qualities and long life will save you many a dollar.

The Vitalic line embraces single tube, racer, and clincher types—all leaders in their classes—all contain carefully selected rubber, fabric, and design. Inspect and test Vitalic quality at your dealer's today. The tires are right and the prices are right.

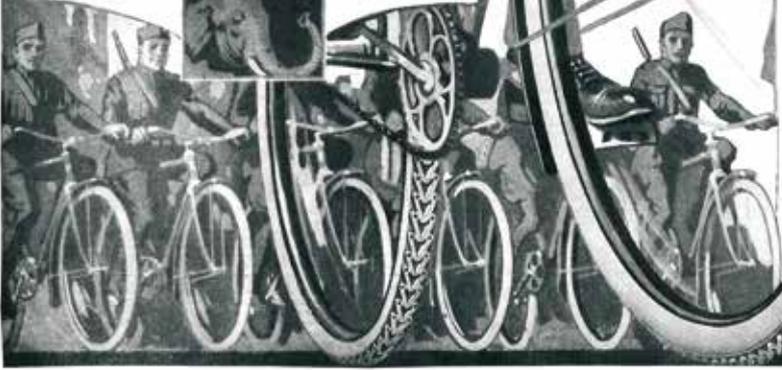
SEND TODAY for FREE Vitalic tuning action and booklet, "Tougher Than Elephant Hide." Please give name and address of your bicycle tire dealer.

CONTINENTAL RUBBER WORKS, Erie, Pa.

**Tougher Than
Elephant Hide**







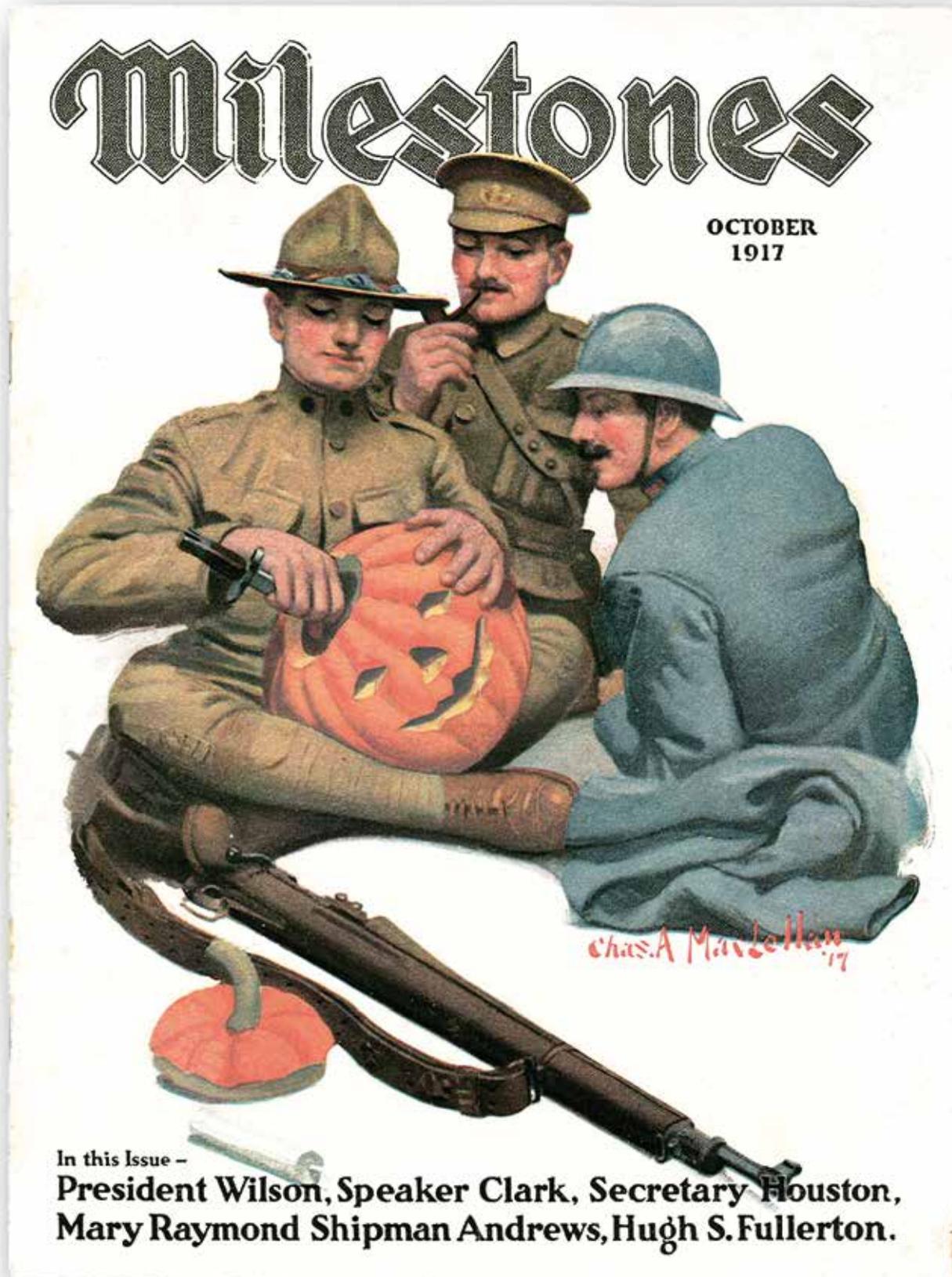


TROOPS OF BICYCLES.

The bicycle also became an instrument used by armed forces in the war, especially for messenger functions. The company Continental Rubber Works founded in 1903 in Erie, Pennsylvania, advertised their Vitalic bicycle tires utilizing images of cycling troopers. The company employed the head of an elephant as their Vitalic brand image accompanied by the motto "Tougher than elephant hide," referring to its anti-puncture qualities.

59. Advertisement published in *The Saturday Evening Post*, May 18, 1918.

60. Historic photograph taken by photographer Paul Castelnuau (1880-1944) on April 1, 1917 in Reims, France.



In this Issue -

**President Wilson, Speaker Clark, Secretary Houston,
Mary Raymond Shipman Andrews, Hugh S. Fullerton.**

TRICK OR TREAT? The corporate internal publications of tire companies reflected issues concerning the involvement of the company and their employees in the war effort. The above image is the front cover of *Milestones*, Firestone's corporate magazine, portraying three soldiers from the Allied forces—an American, a Briton and a Frenchman—sharing the common Day of the Dead tradition, known as the Anglo-Saxon Halloween or the French *Toussaint* celebrated autumn 1917, in the midst of battle.

61. Cover page of the corporate magazine *Milestones*, October 1917. Illustration signed by Charles Archibald MacLellan (1885-1961).