

In the Rubber Coils Punch, 1906

THE DEVIL'S MILK A Social History of Rubber

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PREFACE

Why a Book on Rubber?

"A book on what?" scoffed an acquaintance. "Why rubber?" another demanded incredulously. These were fair questions. The beginning of the answer lies back over twenty years ago when I worked as a rigger in heavy industry and construction. One job involved the overhaul of the Banbury mixer in the Goodyear tire factory in suburban Melbourne: in fact, I worked on it twice in half a decade. Wrestling the machine with chainblock and winch was a filthy job and it took numerous showers and a sauna to get rid of the grime. To this day, my rigger's ticket is stained black. We hoisted ten-ton gearboxes and drive shafts dripping with oil, grease, rubber, and carbon black from a crepuscular basement up towards the sun. My workmates and I were like surgeons suddenly able to walk inside the body of a patient on the operating table, cutting, rejoining, and replacing bits to restore his health. When functioning, our patient—this colossal machine named after a Cornish engineer1—gobbled up masticated rubber, carbon black, and sundry other chemicals and vomited it out as the raw material for tires. Working there was a temporary purgatory for us in the engineering crew, but it was everyday life for the ill-paid immigrant machine minders.

Emerging into the daylight thickly coated in muck, a "king of infinity" under the blue sky after the claustrophobic cellars and vats, I wondered if passing motorists had any idea of where the rubber for their tires came from. Upon reflection, the situation bore out what Marx meant when he

wrote: "At the first glance, a commodity seems a commonplace sort of thing, one easily understood [but that] analysis shows, that it is a very queer thing indeed, full of metaphysical subtleties and theological whimsies." Beneath the surface impressions of this banal commodity we call rubber is a whole buried world of social relations. Although motorists rarely give their tires a second thought, life as we know it is impossible without rubber.

Decades later, I did postgraduate and postdoctoral research on French colonialism in Indochina. In 1999, delving into the Cambodian and French National Archives for my book *France on the Mekong*, I came across a wealth of documents on the country's rubber plantations. This material formed the basis for a chapter of that book entitled "King Rubber." Further reflection led me to consider writing an entire book on the social aspects of rubber, for while many books have told rubber's story, most have focused on the aspects of invention and technological progress. I do not neglect these aspects of the commodity in this work, but take up the novelist Vicki Baum's point that "what people did to rubber . . . is fascinating," but "more interesting yet . . . [is] what rubber did to people." Janus-faced, rubber has been—as we shall see—both a blessing and a curse.

Marx analyzed capitalism in an earlier period of its development, and while he was remarkably prescient in his forecasts, he did not live to see the era of monopoly capitalism: the economic domination of the globe by giant transnational corporations. Along with the oil business, the rubber industry is perhaps the best illustration of this development. Rubber firms such as Michelin, Goodyear, Dunlop, and Firestone were among the first of the giant corporations to emerge at the beginning of the twentieth century. Given that rubber is crucial for the modern economy, it is little wonder that at certain junctures the industry formed synergic bonds with the state. This was the case in the Third Reich in Germany between 1933 and 1945 when the chemicals giant IG Farben worked in tandem with the Nazi party and the SS to produce synthetic rubber for Hitler's war machine. During the same period, this was also the case in the Western democracies, when the dogmas of free-market capitalism were weighed upon the scales of war and found wanting. U.S. rubber corporations played a key role in the resulting state-directed capitalism.

While the *raison d'être* of capitalism is the accumulation of capital via the production of commodities, all commodities are not the same in their relative economic and social importance. Some, including rubber, are

truly indispensable: hence the marriage of the Nazis and IG Farben and the union of Goodyear, Firestone, and BF Goodrich with the U.S. government and military during the Second World War.

It has also been a cruel industry. The monstrous oppression of the rubber slaves at the IG Farben plant at Auschwitz illustrates the depths to which men will sink in pursuit of profits and power. Fifty years or more before the IG Farben rubber plant rose from the Silesian plains, rubber companies were exterminating Indians in the valley of the Putumayo in Peru and King Leopold's rubber men were butchering the people of the Congo basin on a colossal scale.

This book is written from a socialist humanist and ecological perspective, although I hope to have avoided adjectival excess, sectarianism, and intrusive didacticism. Where possible, I have preferred to record the facts and let the reader judge. For me, the story of rubber highlights the problems at the heart of human society and humanity's relationship with nature. As Jack Mundey, the legendary Australian trade unionist and urban ecologist, wrote in his book *Green Bans and Beyond*, "Ecologists with a socialist perspective and socialists with an ecological perspective must form a coalition to tackle the wide-ranging problems relating to human survival. . . . My dream and that . . . of millions . . . of others might then come true: a socialist world with a human face, an ecological heart and an egalitarian body." I second that.

THE DEVIL'S MILK

regions. In 1888, Dunlop took his son's bicycle into his workshop and equipped it with primitive pneumatic tires made of cloth wrappings and inflated lengths of rubber sheeting. The other children laughed at the bulbous wheels, but their derision soon turned to admiration when Dunlop Junior was able to comfortably navigate rough surfaces with a greater turn of speed than they had imagined possible. The new tires were soon afterwards used in cycle races with the same effect and the guffaws of spectators subsided into respectful murmurs.

Dunlop moved to Dublin in 1889 when he entered a partnership with the du Cros family and set up the Dunlop Rubber Company. Alas, Dunlop's business acumen did not match his technical ingenuity and his wily Huguenot partners soon took control of the firm. The firm struck a major hitch when it was disclosed that Robert Thomson's original patent was still valid. This was offset when the firm bought the rights to detachable tires and valves, although Dunlop himself resigned from the company in 1895. According to James McMillan's history of the firm, John Dunlop never really gave a reason for this, and was seemingly content to retire on the £100,000 he received for his share of the business. Shortly afterwards, the company moved the center of its operations to Coventry in England, some said because of complaints by Dubliners about the stink of naphtha, although the du Cros family joked that it was because they could not stand the stench of the Liffey. Afterwards they sold the firm for a large profit, and it eventually mushroomed into the globe-spanning multinational corporation that is a household word today.⁷⁸ Meanwhile, cycling, already popular before Dunlop, claimed many millions of new enthusiasts around the world. One of these was King Norodom, the nominal ruler of the remote French protectorate of Cambodia. On a number of occasions, French bystanders laughed as the king wobbled by over the pot-holed streets of Phnom Penh, followed by a clutch of cycling courtiers. Inevitably, the king would fall off, whereupon in order that he might save face, his faithful retinue would deliberately follow suit. 79 More competent cyclists thought nothing of cycling fifty miles in a day, and the du Cros family cheerfully pedaled the 103 miles from Dublin to Belfast and back between sunrise and sunset.80 Another keen cyclist was a Frenchman named Michelin, who tried the new pneumatic tires on a trip from Paris to Rouen.81 Afterwards, he was to become famous as part owner of a great rival of the Dunlop's. It was only a matter of time before the pneumatic tire was adapted for the new motor vehicles, thus creating the greatest single market for raw rubber.

CHAPTER THREE

The Dark Side of the Rubber Revolution

[I saw] three of the very dirtiest men I have ever laid eyes on lying...just outside the factory mill room... They were quite evidently sick as well as dirty... for we... saw that not only were they covered with carbon black, but they were choking out blue-colored froth from their mouths.

—FERNLEY H. BANBURY, after a visit to the Pennsylvania Rubber Company, 1916¹

No capitalist concern is in business for the love of it. The motivating force is dollars, dollars, and more dollars.

—SHERMAN H. DALRYMPLE, International President United Rubber Workers of America, radio broadcast, Akron, Ohio, February 1936²

By the 1890s, rubber had come to stay: mass industrial society could not function without it. Indubitably, rubber was a boon for humanity, yet the growth of the industry contained a massive contradiction for it brought with it industrial drudgery, in which men and women spent their lives in factories and workshops that remained Dickensian until well into the twentieth century (and beyond in the case of the Third World). It was also accompanied by profound ecological degradation. We have already mentioned Mayhew's child costermongers, who hawked garters on London streets or balloons in Leeds or Manchester, but many thousands of other children were slaves to the machines in the stench and gloom of the rub-

ber factories. Details of working lives in the early rubber factories are scanty, although as the writer F. I. Tuckwell has speculated, we can assume that "they were as bad as in other industries at that time" and that "the workers were probably 'sweated'; their hours long and their wages at subsistence level." No rubber worker has left his or her memoirs, and those captains of the industry who did write focused on invention and commerce, not the lives of the laborers. Thomas Hancock writes of waterproofing between 3,000 and 4,000 yards of fabric in a day, but as Tuckwell notes, "it would be interesting to know the length of the day." These early factories were often set up in "adapted buildings' in which space was cramped; lighting was poor; ventilation and heating were scarcely considered; whilst noise from the machinery and the dirt and smell from the rubber must have been almost intolerable."3 Unguarded machinery was widespread and often led to appalling accidents. In one instance at the India Rubber Company's works at College Point, Long Island, in 1888, a laborer named William Smith bent to blow dust from the gears of a machine. Unfortunately, "[h]is long beard caught in the [unguarded] gears, and pulled the flesh entirely off his chin, and partly from his cheeks."4

Deskilling

Some early rubber workers seem to have had levels of skill far above the norm for later operatives in the industry. Skilled weavers were employed to make elastic thread into webbing for elastic-sided boots and surgical bandages. Other operatives made the whole of a rubber boot themselves, "for Hancock mentions the fact that a man could make 12 pairs of shoes a day." Mass production brought with it deskilling and what Harry Braverman called the division of labor at the enterprise level: one worker would make the heels, another would fashion the soles, another cut out the sides of the boot, and yet another assembled the pieces and glued them together. Although production was streamlined, perhaps more importantly, the bargaining power and control of the skilled craftsmen over their work was vastly diminished. As will be shown in later chapters, a similar process of deskilling occurs in the mass production sectors of the rubber industry, particularly with the manufacture of automobile tires.

Fire was a constant hazard in all sections of the industry. As already noted, Thomas Hancock shifted his premises from London to

Manchester in 1834 after his Stoke Newington works burned down. Almost seventy years later, another fire partly destroyed the St Mungo Golf Ball Company's factory in Glasgow. 6 Such incidents were common; textile historian Sarah Levitt records that the press cuttings section of the Manchester Central Library is "peppered with accounts of 'conflagrations" in the city's rubberized garment industry. Five workers died at Charles Macintosh's works in 1838 when a large vat of highly inflammable naphtha caught fire on the top floor, causing several stories to collapse. The more enlightened David Moseley, Macintosh's keen rival in Manchester, kept his naphtha tanks in separate buildings, and it seems that he deliberately sited his factory in a bend in the River Medlock in order to have ready access to water for firefighting.7 Nevertheless, fires continued to be a major hazard in rubber plants; there was, for instance, a serious naphtha fire at a Hackney factory in 1891.8 It also would seem that minor fires were a constant threat to those employed in glueing pieces of raincoat together: "it is no unusual thing," according to the India Rubber Journal in the 1880s, "to see a whole piece of cemented cloth suddenly burst into flame from the heat of the drying table."9

Workers Trying to Fly

Many of the chemicals used in the industry were highly toxic. The naphtha used as a rubber solvent had a strongly disagreeable odor, and one journalist noted after a visit to the Macintosh works in 1890 that it irritated the lungs. Worse still, those who worked with it would sometimes develop excruciating headaches and would act as if they were drunk. A worker informed the journalist "that after a busy day in his part of the factory, he no sooner emerged into the fresh air than he has commenced staggering and reeling as if under the influence of strong spirits." American workers would later call the condition "naphtha jag" and worry about its long-term effects. Another widely used chemical was carbon bisulfide, which caused workers to hallucinate and even run around "flapping their arms and trying to fly." 10

Conditions in the Manchester mackintosh trade were no better than in such London and American death traps. Although there were some progressive employers who provided fire escapes, decent lighting, and fresh air and water for their employees, many workers slaved in primitive conditions for long hours. In 1889, the House of Lords set up a select com-

mittee under Lord Dunraven to probe conditions in the industry, and found that long hours, poor ventilation, and low wages were the norm. An employee called Kate Hughes testified to receiving breadline wages of five shillings and sixpence a week, with seasonal variations, and Joseph Gronnowksi, an employer, gave evidence of employees working up to twenty hours straight.¹¹ The Jewish rubberized garment workers might have smiled wryly at Morris Rosenfeldt's Yiddish poem, "In the Sweat Shop," had they the time to read it:

There are times when the clock Seems to scorn and to mock, And I will understand What is meant by each hand; What the dull ticking sound Says to drive and to hound And to goad me so sore, As it cries ever more: "Get to work! Get to work! Never pause, never shirk For thou art a machine!" 12

Maisie Mosco's novel *Almonds and Raisins*,¹³ published in 1979, tells of the lives of Manchester's Jewish mackintosh workers in an earlier age when much of the trade was dominated by small businessmen who operated on the very edge of profitability by cutting corners on safety and paying well below the official union rates in their sweatshops. The working day often extended from six or seven a.m. until midnight¹⁴ and the workers were crammed into every conceivable bit of space in converted houses: as late as 1947, Board of Trade inspectors found "sewing machines under the stairs." Mosco describes her fictional hero's first impressions of such a den:

A little later, Abraham's companion informs him:

"Here they make waterproofs, I can tell by the stink. It makes me want to throw up.... It's the varnish they glue the hems down with," Shloime told him when they reached the workroom. "Judah's a *shmearer*, that's what they call those who do that job." Abraham got a glimpse of the *shmearer*'s fingers swooping birdlike into cans of the malodorous substance, then flying lightning fast along the edges of garments.... ¹⁷

When Abraham shudders that he wouldn't do that job even "for a fortune." Shloime tells him, "For that job they don't pay no fortune," but adds that "Me, I'd do anything," because "[a]nything is better than nothing."18 Such attitudes, Mosco comments, perpetuated poor wages and conditions: "the main reason for continued exploitation was the trump card held by the employers; the majority of Jewish garment workers still thought they were lucky to be employed and feared they would lose their jobs if they joined a union."19 Yet there were attempts to unionize the mainly Jewish immigrant workforce in the 1880s and there were a number of strikes in the 1890s. One of these, in September 1890, was led by trade unionist Mr. I. Sugar. The workers demanded an end to cuts in piecework rates, a fifty-nine-hour week, and a ten-hour cap on weekly overtime.²⁰ The most effective workers' organization seems to have been the Waterproof Garments and Machinists Trade Union, set up in 1907. Despite its existence, as late as 1935 the union journal The Waterproofer wrote of the "sheer horror" of the working conditions in the sweatshops and wondered how the workers could stand it.21

Chemicals, Dust, Heat, and Noise

If the working conditions in this earlier, laissez-faire period of capitalist production were poor, monopoly capitalism proved only marginally better. The conditions of workers in the rubberized garment trades were duplicated in some respects in the huge tire factories that sprang up with the mass production of motor cars. In the mills at Akron, Ohio, workers routinely endured "dust and flying soapstone" or nodded "drunkenly in the benzine vapors above concrete tanks," state the Wolf brothers.²² Soapstone or steatite is a naturally occurring soft rock comprised mainly of talc. It is widely used in tire manufacture and in garages to keep inner

tubes and other components elastic and prevent them from cracking under heat. As *The New York Times* advised its readers, "A liberal use of talc or soapstone on the inside of the tire before the tube is put in will help to overcome the bad effects of heat...."²³ The effect of talc dust on workers' respiratory systems is another question.

The veteran union organizer John D. House recalled the pressures of work on the tire builders at Akron in the 1920s. Coaxed, cajoled, and threatened by foremen and company pacesetters to ever greater outputs, House and his fellow tire builders had to toughen their hands with formaldehyde and tallow. Even then, they would finish each shift with their fingers rubbed raw and bleeding.²⁴

Among the worst places to work were "the hot, black, stinking environment called the mill room" and the enervating heat of the tire curing floor, dubbed "the Pit,"25 where men worked stripped to the waist in a lather of sweat with the stench of sulfuretted hydrogen in the air. In 1926, Dan Goodenberger, a Firestone supervisor, told a journalist that the Pit got its name "because of the terrible conditions. The heat was so intense in summer and the ventilation was poor." An old-timer named William Moore, who had come to Akron from Montreal to work for the Diamond Rubber Company in 1908, told the reporter that "[d]ue to the intense heat, congested condition of the Pit, the suffocating steam and wet floors, it was very often necessary to slow down work during the summer months as men on every hand were prostrated."26 When he spoke to the reporter in 1926, Moore was sixty-three years old and had worked in the Pit for almost twenty years. He was pleased to say that during that time some of the worst aspects of the place had been improved, with better ventilation and "cleverly designed machines" that made the work lighter. 27 Yet the Pit maintained its grim reputation, and the new technology also had the effect of eliminating jobs.

Workers complained of "rubber poisoning." In 1913, Belle Myers, a female rubber worker in an Akron plant, complained of soapstone dust on her clothing, and of the oppressively acid atmosphere and the lack of ventilation in the mill. Others routinely experienced headaches, dizziness, and nosebleeds. 28 The heat and chemicals that were used combined with the insufficient ventilation also caused dermatitis, chronic rashes, and even unconsciousness. The company doctors declared there was no such thing, yet there was no doubt about the potential harm of the aromatic solvents commonly used in the mills, 29 which included benzene, toluene, xylene, and naphtha. Experts have attested that "any odor [of aromatics]

means that concentrations are above safe levels." Furthermore, exposure to high concentrations of aromatic hydrocarbons can destroy bone marrow, induce leukemia and other cancers, and damage chromosomes and genetic material. Ominously, "people who work with aromatics gradually lose their ability to smell them."³⁰

The effects of exposure to the reek of impure carbon bisulfide,³¹ which was widely used in the process of cold vulcanization, had been known for decades. A worker who showed a journalist around a British rubber plant in the 1880s testified that once in the open air after a busy day in the factory working with the chemical, he would commence "staggering and reeling" as if under the influence of strong drink. After inhaling carbon bisulfide, he claimed, men and boys would run round flapping their arms, as if trying to fly.³² Afterwards, those who were affected would inevitably develop a splitting headache. In 1898, a London rubber manufacturer had been prosecuted for illegally employing a child of thirteen years of age to use the chemical in his work. Revealingly, the defense attorney justified his client's actions by arguing that "it would be impossible to carry on the business at a profit if men had to be employed to do the work." The company was fined twenty shillings with twenty-five shillings costs.³³

The atmosphere in the Akron mills was thick with toxins such as hydrogen sulfide and sulfur dioxide, gases that irritate the eyes and upper respiratory tract and can cause pulmonary edema, a condition causing its victim's lungs to fill with fluid. Prolonged exposure to these gases can also cause brain damage. Another culprit widely used in the rubber factories was lead, which builds up in the brain, liver, kidneys, aorta, bones, and muscles, and can cause permanent damage to the central and peripheral nervous systems.³⁴ Decades after the effects of such toxins were validated in medical journals, the Akron companies could not claim ignorance as an excuse. And yet in 1941 three claims for death and twenty-two for disability from benzene poisoning in the Ohio rubber factories were filed in the Ohio Industrial Committee.³⁵ The Firestone company still denies ever using benzene at Akron, despite evidence that tire builders routinely used "benny" to add "tack" to rubber.³⁶

The Blue Men

Perhaps most bizarre of all was the condition in which men's skin literally turned blue from cyanosis³⁷ following exposure to aniline dye, a chem-

ical that BF Goodrich scientist Dr. George Oenslager had discovered would strengthen rubber products and speed up the vulcanization process. After trials with unwitting human guinea pigs, Dr. Oenslager found that although most workers could tolerate only limited exposure to the chemical without falling sick, a select few "blue men" were apparently immune to its deleterious effects. These same men were also unaffected by the great 1919 influenza epidemic that killed millions around the world, he observed, 38 although what the connection is remains a mystery. Aniline dyes were in use in the Akron mills as late as 193039; despite the industry admitting that they were a serious health hazard they were much too profitable to discard. 40

Decades later, despite company safety campaigns and union scrutiny, the rubber mills remained dangerous places. The Akron memoirist Joyce Dyer describes the Xylos recycling plant in South Akron where her father, Tom Coyne, worked for thirty-seven years as superintendent of Firestone's most dangerous factory. Not only was there a witch's brew of caustic chemicals at Xylos, but there were hog mills with rotating rolls and giant mechanical scissors and tottering piles of tires stacked everywhere under a three-storey digester plant that "belched . . . sour air into South Akron twenty-four hours a day."41 Roger Shuy, a linguistic researcher, recorded the difficulties he encountered talking with Firestone workers because of the high levels of noise inside the plant.⁴² Frances Golliday, a Goodyear employee during the Second World War, told of how she worked rolling glue onto the seams of rubber barrage balloons and how "You'd get drunk in there-from the fumes."43 Dorothy Chevin, who worked in the company's dope room at the same time, wondered how long workers lived after exposure to the poisonous fumes.⁴⁴

Rubber factories are hot places, and it has since been recognized that continual exposure to high temperatures can be injurious to health. Working in the hot and ill-ventilated parts of the rubber factories such as the mill room and curing pits, particularly during the summer months, was taxing as there was little understanding of the necessity to gradually accustom workers to high heat and to constantly rehydrate, given that the sensation of thirst lags behind the actual need for replenishment of fluids. It is unlikely that pausing to drink water was factored into the calculations of the management, who regarded their "subjects" as machines.

Sometimes the occupational health issues have extended far beyond the rubber industry itself. In the late twentieth century, for example, there was an epidemic of disabling dermatitis and asthma among medical workers who had worn cheap latex gloves and were affected by the low-quality powdered latex on them. In the worst cases, the condition led to anaphylactic shock and death. In 2001, the British Trades Union Congress (TUC)⁴⁶ estimated that at least 100,000 National Health Service staff had developed latex allergies, along with between 500,000 and three million people in the British population as a whole. In Germany, according to the same source, one third of all occupational asthma cases resulted from exposure to latex. Although use of the gloves was promoted to protect healthcare workers from blood-borne diseases, the TUC argued, the cheap gloves perhaps caused more problems than the illnesses they were designed to prevent.⁴⁷

Rubber workers fought back. The *India Rubber Journal* reported a number of strikes in the English elastic webbing trade in the 1880s and 1890s. In 1888, the Bruce & Wykes works at Leicester was strikebound for five months after repeated cuts to the men's wages had reduced their earnings to between 40 and 50 percent of what they had made fourteen years previously. Such wages, the workers complained, were "impossible to live on," but just enough not to die on, as the old saying goes. In the same year, female sole and heel workers at the Myer Rubber Company put their tools down when the company closed the factory windows on a hot summer day, claiming that the goods were affected by "prickly heat." The women only returned to work "when they were promised plenty of fresh air." 49

The Great Silvertown Strike

In 1889, a bitter strike broke out at the huge works of the India Rubber, Gutta-Percha and Telegraph Company's works at Silvertown in London's East End. The company claimed that a majority of employees were opposed to the strike but were "intimidated into leaving their work" by large crowds of picketers. The union claimed that the dispute was a lockout, engineered after the company reneged on an agreement to increase pay, despite making a clear profit of £166,000 per year from its lucrative cable manufacturing and intercontinental laying operations. The union accused the company of "slave driving" and a large proportion of the population of Silvertown and West Ham agreed. Mass meetings and parades of strikers and their supporters turned out despite "bitterly cold weather" to hear union heavyweights such as Ben Tillett and Tom Mann urge them

to stick together for victory. The dispute wore on amidst rumors of the imminent arrival of strikebreakers, and there were serious clashes between picketers and police. The London Trades Council urged the strikers to stay out, but the cold winter, uncertainty about the outcome, and company intransigence saw first a trickle, and then a flood of strikers returning to work. In the end, twelve weeks after the dispute began, the last of the strikers slunk back through the factory gates. ⁵⁰ It was later revealed that the company had been able to comfortably maintain production at their other factory in France, ⁵¹ especially as there was a growing shortage of gutta-percha. As we shall see in subsequent chapters, the rubber industry in the United States witnessed industrial battles of enormous proportions.

CHAPTER NINE

"Rubber's Home Town"

In those days Akron was still a boomtown; she had grown so fast she hadn't caught up with herself. Main Street, Market Street, it all had an unfinished look, more like a boardwalk in some amusement park. Night clubs and eating places and pool rooms and sport shops, where you could play the numbers, and at that time they had cabarets with girls, and shooting galleries, and all such trash. Seems they didn't even have time to put in a decent sewer system, you could smell that too, and roads ran out into nowhere and the whole town was a jumble with too many folks, crowded in, sweating, swearing, and pushing each other out of the way.

-VICKI BAUM²

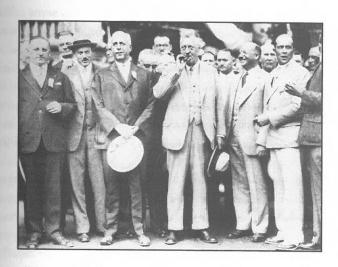
Akron's old-timers used to say that you could smell Rubber Town long before you saw it. The Ohio city is hidden in the low sandstone folds of the westernmost Alleghenies, but if the wind was right, the "tang of molten rubber" carried as far as Wooster, thirty miles to the southwest. Some early pilots even claimed to know when they were over Akron because of the dirty diaper smell of sulfuretted hydrogen. The vast rubber factories belched a pall of smoke over the city, plunging it into twilight "gloomier than Pittsburgh" and often carpeting it with black snow. In its time, this Midwestern city housed the world's greatest concentration of rubber factories and for some eighty years it was known as "Rubber's Home Town."

The Akron Rubber Barons

Nineteenth-century boosters bragged of making Akron the greatest industrial city in the world, the "Tip Top City." One person who listened was an ex-Civil War surgeon named Dr. Benjamin Franklin Goodrich, who traveled west in 1870 seeking an alternative location for his New York rubber mill. Goodrich had planned-or gambled-well. Markets aside, there were other indications that he had made a wise choice. Rubber, it is often said, is a thirsty industry, and Ohio is never short of water. Land was also cheap and plentiful in Akron and coal—a heavy, dirty, and bulky commodity-was available from local mines. Labor could be locally recruited, and labor costs tended to be cheaper than they were back East. The raw rubber itself would be imported from Brazil. In May 1871, Dr. Goodrich opened his factory on flat land lying between South Main Street and the Ohio and Erie Canal. Initially precarious, the business eventually prospered.7 Goodrich was convinced that the key to success in a competitive market rested with continuous improvement of the finished product. His motto was: "Anything that can be made can be made better." Twenty years after its inception, BF Goodrich was the fourth-largest industry in the city, employing almost four hundred men in its mills.

The second of Akron's rubber barons was Francis "Frank" Seiberling, the descendent of a shoemaker who had set up a farm machinery factory in the city. Control of the factory eventually passed to Frank, Lubber as the effects of the 1890s trade depression hit home and the center of gravity of America's agricultural industry shifted further west, he went bankrupt. Stubborn and unsentimental, he borrowed capital in 1898 to set up the Goodyear Tire & Rubber Company in East Akron. His new factory started with thirteen employees, making bicycle tires and solid carriage tires by hand. Two years later Seiberling had 150 men on the payroll. In the early days, the workers would hang fishing poles out of the factory windows into the Little Cuyahoga River to catch their dinners while they worked. Such homely touches would not last long.

In 1900, a Yankee engineer named Paul Litchfield arrived in Akron to take up his new position as Goodyear's plant superintendent: a grandiose title for a job in what he later described as "a rather dilapidated group of buildings alongside a creek." ¹⁴ Litchfield was an ambitious outsider, but he was no bird of passage and as he wrote later the East Akron plant "was to be my business home for the next half century." Litchfield was the epitome of the "gum-dipped" executive. The son of a Boston portrait photog-



Goodyear President P. W. Litchfield (third from left) with zeppelin engineers Karl von Arnstein (smoking cigar) and Hugo Eckener, Akron, OH.

rapher¹⁵ and a devout Unitarian, Litchfield was descended from pioneers who had arrived in America aboard the Mayflower. 16 He had stumbled into a career in rubber in New England, working first as a laborer in the region's antiquated rubber mills during his long vacations from MIT. The experience prepared him well, for although he was initially "nauseated" by the smell of the raw rubber, he grew inured to it. In fact, the stench on his clothing was so bad that railway conductors refused to let him ride inside the trains and he had to stand on the back platforms.¹⁷ An energetic, forceful, visionary young man, he also had an eloquence seldom found among the sober fraternity of engineers and managers, and he was to become an indefatigable speaker and writer on behalf of Goodyear and the industry as a whole. In time, he was to supplant Frank Seiberling as the head of the firm and supervise its transformation into a business empire that, he said, "spread all over the globe so that the sun never sets on the Goodyear factory."18 By 1916, Goodyear was the country's largest tire manufacturer and by 1926 it was the largest rubber company in the world,19 fed by capital from New York banks following a bailout by the brokerage firm Dillon Read when the company faced bankruptcy in the postwar slump.²⁰

Meanwhile, a third major player-to-be had settled in Akron. Harvey Firestone, Sr., pious Episcopalian, staunch Republican, and devout entrepreneur, had grown up on a farm near Columbiana, some miles to the west of Akron. Like Seiberling he was a little Napoleon of a man, a scant five-foot-five in his socks, and possessed fearsome energy and a will to succeed. After learning the rudiments of bookkeeping in a Columbus, Ohio coal office, Firestone struck out on his own as a glorified snake oil seller, hawking patent cures around rural Ohio. After a stint in the rubber marketing business in Chicago, Firestone moved to Akron in January 1900.²¹ He opened a small rubber factory in the summer of 1900, moving the following year to a bigger site on South Main Street.²²

A fourth magnate, William "Bill" O'Neil, set up his East Akron plant in 1915 when the tire industry was firmly established, standing out as an Irish Catholic in an industry dominated by WASPs. O'Neil was "a compulsively competitive man with supreme confidence in the American system of private enterprise." He called the company he founded General Tire & Rubber, probably because he equated the word "General" with the success of industrial giant General Electric. ²³ Although his company never rivaled Akron's Big Three, it resisted the fierce competitive pressures that sent most of the city's other small fry to the wall.

The Dawn of the Automobile Age

At the turn of the nineteenth century, Akron was still a minor center in the American rubber industry, which was concentrated in New England and New York State. The industry had grown up there after a Yankee sea captain brought the first rubber goods to Boston in 1820. In the early 1830s, Edwin M. Chaffee and partners opened an India rubber factory in Massachusetts.²⁴ In 1892, Charles Renlett Flint formed the U.S. Rubber Company, a corporate behemoth by the standards of the time, with a capital stock of \$50 million.25 Flint absorbed many of his competitors and by 1892 he employed over 150,000 rubber workers.26 The Akron upstarts were aggressive competitors, quick to take advantage of mass advertising, proximity to expanding Midwestern markets, and the relatively low pay rates applying in their city—and they were determined to keep the unions out of their plants. They were also dedicated innovators and they were not burdened by investment in the antiquated machinery common in the factories of the Northeast. Goodrich's successors were also quick to see the potential of the new automobile industry that was to transform American life.

Until the automobile age, people seldom strayed far from their homes. As Harvey Firestone, Jr. told his listeners in a 1931 radio broadcast, older people thought five to ten miles by horse and buggy a long journey, and fifty to one hundred miles by railroad was considered "extraordinary." By the 1930s, however, he said that Americans considered a trip of fifty miles by car to be "nothing" and took the pneumatic tire for granted. ²⁷ By 1900 the United States was on the brink of revolutionary changes in transportation. Before the advent of mass-produced cars, the major products of the Akron plants, as in New England, included bicycle tires and solid wheels for carriages. As late as 1900, the Goodyear Company bought extensive advertising space in national magazines for its rubber horseshoe pads. ²⁸ Even Harvey Firestone, who recognized the potential for pneumatic tires before his rivals, rode to work in a horse and buggy during those early years. ²⁹ Skeptical bystanders would often call out "get a horse!" when cars stalled in the muddy Akron streets. ³⁰

Automobiles were produced in U.S. factories from the late-nineteenth century and the first U.S. car race was held in Chicago in 1895.31 Cars were widely regarded as an expensive novelty, but Firestone's friend Henry Ford was to change this. Ford was a prickly, ruthless, rude, anti-Semitic and driven man who despised "book learning" with redneck intensity, but he epitomized the American industrial pragmatist. He famously sneered, "History is bunk," and once claimed that his innovations were possible "because I haven't enough knowledge in my head to interfere with my thinking."32 Ford revolutionized industrial processes, making mass production by semiskilled and unskilled operatives a modern substitute for the painstaking process of small-scale manufacture by skilled mechanics. In 1908, the first of 15,000,000 Model T Fords rolled off the production line at Dearborn, Michigan. In 1905, there were 77,000 motor registrations in the U.S. Five years later, there were 350,000, and on the eve of the First World War, there were 1.25 million. By 1929, there were 26.5 million.33

Akron Cashes In

Akron's rubber barons quickly took advantage of the fact that the mass market in automobiles brought with it the need for the mass production of pneumatic tires.³⁴ In 1909, the *India-Rubber Journal* named Akron as "probably the largest rubber manufacturing centre in the world," with

thirteen rubber companies and a total investment of over £4 million sterling, or more than \$554 million in today's values using the retail price index as a guide. The main product was tires, but the city's factories also churned out "rubber goods of all descriptions, including both soft and hard rubber articles. The Firestone plant alone was manufacturing over 600,000 tires per annum by 1913. The United States was consuming some 70 percent of the world's raw rubber, and in 1918 Akron took 60 percent of the country's imports of the commodity —over 40 percent of the global production of raw rubber. Looking back from the Depression years, the journalist H. Earl Wilson remembered that there were eighty millionaires in Akron during the great boom.

Statistics tell only part of the story. The rubber companies at Akron did not just take hold of readymade machinery and use it on a larger scale. The Big Three were at the cutting edge of rubber technology, sinking vast sums of money into research and development. The twin spurs were competition and profit. Profit margins were slim and could only be maintained by quality control, efficient production, economies of scale, ruthless marketing, and the strict regimentation of the workforce. Alfred Lief estimates that the introduction of machine-built tires around 1910 cut direct labor production costs by one-half.42 Five years earlier, Harvey Firestone had built a huge new plant in South Akron and began to produce handmade automobile tires. Seven years later, his factory was mass producing machine-built tires. 43 If intense competition meant continuous technological change, it also led to an obsession with time and the introduction of the Taylor and Bedaux systems of "scientific management" to extract the maximum possible surplus value from the workforce.

The effects on competitors were devastating. The rubber barons detested each other and jealously guarded their innovations. Suspicion about industrial espionage verged on paranoia. Goodyear's Paul Litchfield records that when he went to Clermont-Ferrand in 1912, the Michelin management refused to see him and set a private detective to dog his footsteps in the French city's streets. Hichelin employees were required to sign an undertaking not to reveal the company's "secrets" to rivals or their industrial spies. By 1937, outside of the Big Three in Akron, only Mohawk Rubber, General Tire, and the Seiberling Company at Barberton survived and the once substantial Swinehart, Marathon, Mason, and Star and Portage rubber companies had been driven to the wall or absorbed by their rivals.

The Akron entrepreneurs were guided by the realization that "nothing is so perishable as an established product."47 They also recruited talented chemists and engineers to ensure that they stayed ahead in the technical race. Waldo Semon drove his Model T Ford to Akron with his family and belongings from Seattle in 1926 and headed up the polymer research at BF Goodrich that led to the creation of PVC.48 Other gifted scientists in the company's stable included Arthur H. "Dirty" Marks, a nickname earned because of his blackened fingernails from laboratory work,49 and Dr. George Oenslager, who first used carbon black to strengthen and color tire rubber in 191250 and who pioneered the use of aniline dyes to speed up the vulcanization process.⁵¹ The rubber companies were also quick to acknowledge the value of any innovation made elsewhere. One example of this was the invention of the Banbury internal mixer in 1916 by Dr. Fernley H. Banbury, a Cornish-born heavy engineering specialist who was rushed to Goodyear to put the machine into operation.52 It radically improved the mixing of masticated rubber and chemicals to produce a uniform product and rendered the old two-roll open mill obsolete. Banbury mixers are still a standard feature of rubber factories today.53

The Wingfoot Express and the Silver Fleet

The new motorcars were joined on the roads by motor trucks that relied on the pneumatic tires the Akron industrialists were eager to produce. The numbers grew steadily: in 1904 there were only 700 registered trucks in the whole of the United States and these all rolled on solid tires. By 1920 there were over a million and by 1947 over six and a half million.54 From 1916, Goodyear manufactured pneumatic truck tires and while the advantages of these were clear for short-distance haulage, there was considerable skepticism about their value for long-distance freight. Goodyear set out to prove the critics wrong and to create the demand for its products. From 1917, the company operated its own freight line, the Wingfoot Akron-Boston Highway Express, "to convince skeptics of the value of pneumatics for long distance hauling." From 1920, the company even built its own six-wheeler trucks that could travel at thirty miles per hour with a six-ton load. The other rubber companies followed suit. BF Goodrich, for example, maintained its famous "Silver Fleet" of trucks, which toured the United States from 1929 to the mid-1930s testing the

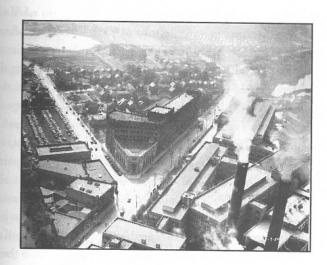
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company's tires on every conceivable type of road and in every climate and terrain. ⁵⁵ Such a commitment involved a real leap of faith. The problems were not just of human perception; they involved physical obstacles of mud, dust, snow and ice, and rickety bridges. Manufacturers and wholesalers relied on the railroads for long and medium distance haulage because the country's roads had been designed for the horse and buggy. Indeed there was no properly integrated national highway system at all, as the crews of the Wingfoot Express discovered when "[o]riginal and subsequent runs left a well-marked trail of broken bridges, aged structures that were to prove unequal to modern transportation demands." ⁵⁶

In 1917, the first trucks Goodyear sent over the Alleghenies to Boston were bogged down fifteen miles out of Akron. Heavy rain had turned the dirt road into a quagmire, and the crew had to winch the trucks out. Hugh Allen, the company's public relations manager, recorded that after five weeks, twenty-three wrecked tires and countless damaged or destroyed bridges and telephone poles, the crew drove into Boston.⁵⁷ Undaunted, Vice-President Litchfield made what was at the time a startling prophecy: "With pneumatic tires, the truck is destined to become a lifeline of our economy. From city streets and alleys, trucking will spread over every mile of existing highways in the nation and over highways yet to come." Moreover, they would carry everything from heavy machinery to eggs.⁵⁸ The public's attention had been earlier drawn to the issue of long distance automobile travel in 1919-1920, when a convoy of army trucks under the command of the young army officer Lt. Col. Dwight Eisenhower took sixty days to cross America from the Atlantic to the Pacific.⁵⁹ Thirty-six years later, U.S. President Eisenhower ordered the construction of an allweather national highway system—the National Defense Highway System⁶⁰—and Litchfield's economic prediction was realized.

"Akron: Standing Room Only"

Swept up in the rubber boom that preceded the First World War, Akron grew swiftly from a sleepy Midwestern town into a booming industrial city. The barons' factories were built on a colossal scale, strung like immense brick battleships along East Market and South Main, puffing clouds of smut and smoke into the air. Akron became one of the most polluted cities in America, rivaling even Pittsburgh's claim to endure "darkness at noon." The city also pulsed with crowds. At the shift changes,



Aerial view of Goodyear plant, Akron, in its heyday.

workers swarmed onto the streets and the air was full of the clanging of streetcar bells. No city on earth, perhaps, could match the speed with which the "Tip Top City" was growing as a result of the rubber boom. Akron entered the twentieth century with a population of 42,000, most of them locally born in what had been "a quiet and well-regulated Western Reserve city."62 Between 1910 and 1917, the city experienced a 202 percent population increase. 63 In 1910, Akron housed almost 70,000 people and by 1920, there were 208,000, a third of whom worked in the city's rubber mills.64 Many more were directly or indirectly dependent on the mills for their livelihood: gummers' wives and children, shopkeepers, landlords, contractors of every sort, whores and bartenders, peddlers and service workers. The days in which local boys could fish and swim in the town's creeks65 would pass forever as the river banks fell under the shadow of an American version of Blake's "dark Satanic mills." Everywhere was the thick crush of people in a boomtown of saloons, brothels, cafés, music halls, and speakeasies. Bartenders lined up pots of beer and shots of rye for gummers coming off shift. Revues with dancing girls had midnight sessions. The city lived twenty-four hours a day, catering for the different shifts. It was quite a change from the pre-rubber days in Akron when, as one prominent citizen remarked dryly, "a young man could spend a hilarious evening until nine o'clock at the public library and then go to the Union Station to see the Columbus train come in."66

The city center was strung out along the intersection of Main and Market Streets. The streets were largely unpaved, with wooden sidewalks lapped by the mud and dust stirred up by horses' hooves and steel-shod wooden wheels and later the tires that were to bring the city its fame. It was a city of extremes of wealth and poverty, both of which could be found along Market Street, which ran from the factory district of East Akron "to the svelte suburb of Fairlawn" many miles west. In the east and center, there were "the slums along the canal . . . where hardworking women keep their men" and in the west "elegant apartments where befurred women are kept by men who do no work at all," the Akron writer Burr McCloskey wrote. The worst districts were down by the marshy river bottoms. Here, the city's African American population lived in abject poverty, harassed by local chapters of the Ku Klux Klan, and the racism of genteel white folk who wished to keep their suburbs racially "pure."

Storybook Palaces

For many years the city's swankest suburb was Fir Hill, adjacent to what is now the campus of the University of Akron. By the early twentieth century, however, the stench of the rubber mills had driven many of the city's rich folk to the less tainted air of West Exchange and Market Streets. It was there that the O'Neils of General Tire & Rubber built their palatial mansion and Harvey Firestone his sprawling Harbel Manor.⁶⁸ Frank Seiberling's mansion, Stan Hywet Hall, was built on the Portage Path, along which the Iroquois once hauled their canoes between the Cuyahoga and the Ohio rivers. Built in the American Tudor revival style to the specifications of an acclaimed architect, the house and grounds are today open to the public and give some inkling of the tremendous wealth generated at the height of the rubber boom.⁶⁹ The O'Neil mansion is now an upmarket bed and breakfast, but the visitor will search West Market Street in vain for any sign of Harvey Firestone's mammoth residence. Begun in 1912, Harbel Manor expanded year by year until it comprised 118 rooms, some of them with Italian marble fireplaces and teak paneling. The property included a swimming pool, stables for seventy-five horses and an indoor riding course, and a farm with thirty sheep and 5,000 White Leghorn chickens. Pulled down in 1959 and sold off as forty-five separate lots by a realty firm, the only traces of what an Akron journalist called a "storybook palace . . . from the great days of the rubber boom"⁷⁰ are a scale model of the main house and the original brass nameplate of the premises.⁷¹ Firestone, who also maintained a mansion in Miami, once pondered, "Why is it that a man as soon as he gets enough money, builds a house much bigger than he needs?"⁷²

Less privileged folk who came looking for work were fortunate if they found board and lodgings in the overcrowded city. Often the mill men had no real homes to return to after work. The influx of workers had created a massive housing crisis, with basements, attics, garages, and chicken coops sublet to families and single workers at extortionate rents. There was "standing room only in Akron," the journalist Edward Mott Wooley famously observed in 1917. "It was ridiculously easy to find a job, but almost impossible to find a place to sleep." Another journalist recalled, "Amazing signs dotted the town. They said: FOR RENT: BED FOR THIRD SHIFT." Some incoming workers were housed in a tent city on the site of the company housing subdivision of Goodyear Heights. Akron's "unique sleeping arrangements" had melancholy consequences during the influenza epidemic of 1918. "The overcrowded conditions in the city's rooming houses," a local journalist considered, "were exactly what was needed to make the flu a great death-dealing machine."

"The Capital of West Virginia"

Akron's factories had an insatiable appetite for young, strong laborers. Even before foreign immigration was curtailed by federal legislation in 1924, the factories looked south for supplies. As the labor historian Dan Nelson has written, "Akron lay on the northern edge of a vast area of marginal farms and underemployed workers" that encompassed southeast Ohio, southwest Pennsylvania, and West Virginia. Recruiters scoured the region for workers. Three-quarters of the newcomers to Akron were American-born and many came from the impoverished "hollows," coal towns, and hill farms of the Appalachians. Many were desperate to escape poverty. The future rubber union leader John House recalled that he had watched his father work "harder than any man should" trying to make a decent living to support his family on a marginal farm in Georgia. He vowed he would not spend his life in the same drudgery and went north to Akron. 80

The recruiters bought advertising space in backcountry newspapers, holding out the promise of a better life to restless and impoverished farm

boys. These mountain men were often bussed direct to factory gates, with colored tags emblazoned with their new employers' names stuffed into their buttonholes⁸¹ to brand them like so many pieces of merchandise. Because so many of them took Route 21 north from the hills, vaudeville comedians dubbed Akron "the capital of West Virginia." By 1920, there were between 50,000 and 77,000 white Southerners living in the city. They stood out because of their distinctive accents and clustered together in their own neighborhoods with their own traditions: playing "old-timey" music on fiddles, guitars, and banjos, worshipping in their own chapels for "shouting Methodists" and holy rollers, listening as revivalist preachers castigated Akron as Sodom on the Cuyahoga. 84

By the end of the First World War, the Akron West Virginia Club boasted 25,000 members and twice that many turned out to their annual picnics.85 Native-born Akronites often derided them as "Snakes" or "Snake Eaters," although there was no evidence that serpents ever formed part of their diet.86 Like Irish immigrants elsewhere, they were the butt of cruel jokes. One farm boy turned on a drinking fountain in the BF Goodrich mill, but "a very large stream of water hit him full in the face with almost enough force to knock him down." The fountain was malfunctioning, but the young man was convinced it was a practical joke, opining "[t]hat's the way the darned smart alex [sic] in town plays tricks on us farm boys."87 In 1921, local journalist Joe Sheridan quipped that a man had been "sentenced to West Virginia for life" after an Akron judge granted the felon a suspended sentence on condition that he leave the city and go home to Appalachia. Akron's outraged West Virginians successfully mobilized in local elections against the Democratic Party and swore, "There will be no more criminals who should be in the penitentiary that will be exiled to West Virginia."88

The hill folk were "Akron's largest ethnic group" and the preferred labor force for the rubber mills. Although Ruth McKenney noted that Akron was a largely white city, 90 and Alfred Winslow Jones testifies to its high proportion of "native born" Americans, 91 there were enclaves of other nationalities: Italians in North Hill, Hungarians, Slovenes, and other Slavs in Barberton, and Germans in Wolf Ledges. The city must have been a strange and frightening place to the European immigrants, many of whom went directly from the trains into the factories, often without taking stock of their new surroundings or even eating a meal. Homesick and isolated behind barriers of language, they were nevertheless to contribute enormously to their new country. In the end many pros-

pered, but the rubber industry's appetite for labor and profits all too often cast a shadow over the American Dream. As Daniel Nelson observed, European immigrants—and American blacks—often did the dirtiest, heaviest, least skilled, and poorest paying jobs in the mills, such as opening and washing the bales of crude rubber, 92 slaving in the mill rooms, or pushing brooms through the soapstone dust that was used in tiremaking.

Klan Town

Racism was deeply entrenched in Akron, an irony given that the city was the home of anti-slavery martyr John Brown for many years, the scene of Sojourner Truth's celebrated address "Ain't I a Woman?" 33 and a major stop on the "underground railroad" that smuggled runaway slaves to Canada. In 1913, white residents of North Hill formed a committee to exclude blacks from the suburb.94 When Goodyear and Firestone built housing estates for their workers in the years following the First World War, black employees were excluded from buying houses even though white non-employees could do so.95 Segregation extended to the company's in-house welfare schemes, with its separate "Goodyear Colored Club."96 In the rubber mills, black people were excluded from the skilled and high-paying jobs. In 1937, a Communist pamphlet drew attention to what it called "Jim-Crow conditions" in the Goodyear plant: black workers were not allowed to eat in the main canteen and were forced by the management "to eat in that dirty little hole in the wall called the Mill-room cafeteria."97 Called "boys" regardless of their age, black workers' lives were full of casual insult and governed by the color bar. James Turner started work at Firestone in 1934 and despite a good education his skin color saw him put to work on the yard gang. It was, he recalled, one of the most "distasteful" jobs in the plant. In winter, the men dug the pipeline for the plant's water supply, often up to their knees in water in subzero-degree weather. In summer, they cleaned the heater pits, in "sweltering" temperatures. He was later "promoted" to janitor and ended his career in the mill room before being seconded to work for the international union.98

Akron was perhaps the largest center for the Ku Klux Klan outside of the South—for the white Southerners had brought more than shouting religion and banjo music with them. For a brief period in the 1920s, according to historian Karl Grismer, the Klan "practically ruled the city." Blacks formed a tiny minority of the city's population—less than

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6,000 out of a population of 208,000 in 1920. The Klan boasted 52,000 members in the city at the time and its rallies and cross-burnings attracted large crowds. Depending on the circumstances, the Klan could appear both pro and anti-union and Republican or Democrat, but at its core, it was a demagogic anti-Black, anti-Semitic, anti-Catholic, and anti-Labor organization the rubber companies happily coexisted with. The Klan's influence declined after a series of financial scandals in 1926, but contrary to some optimistic claims, it never disappeared from the city. The Jewish CIO organizer Rose Pesotta records that many staunch union members in the 1930s, including the legendary picket captain "Skip" Oharra, had been Klansmen. When the wife of a striker casually mentioned the Klan, Pesotta disingenuously asked what it was. The woman replied that it was "A social and educational society"... in the manner of one explaining a local custom to an outsider." 100

It was a case of the "tradition of all the dead generations weigh[ing] like a nightmare on the brains of the living." Conservative white Southerners were imbued with the ideology of individualistic "pure Americanism" and hailed from regions where wages were low and farm work was excruciatingly hard. Moreover, they brought with them the ideology of racism from a society in which the races are divided in every walk of life. Their attitudes—or at least those of the industrial union leaders whom they produced and deeply respected—only began to change as a result of the radicalizing effects of the class struggle that broke out in Akron in the 1930s, and was recorded by Pesotta. Nevertheless, the first black tire builder only learned the trade in 1955, and many things did not begin to improve for black people in Akron until after the Civil Rights Act was passed in 1964. 102

"Light Infantry of Capital"

The rubber companies preferred to employ white Southerners rather than Ohio locals, blacks, or foreign immigrants. ¹⁰³ It was in the interests of the rubber bosses to have a floating population to depress wage rates and cut across possible worker militancy, ensure maximum production and profits, and replace those who left or were worn out. The mountain men were hard workers and often individualistic in outlook, reflecting their origins as fiercely independent small-owners of farmlands. Even those who had previously labored on the railroads or down in the mines

of their home states had close connections to the soil, and many Akron gummers maintained their small properties "back home." European immigrants were seen as more susceptible to socialist and syndicalist ideas, making them less favorable to Akron's employers, who were often forced to hire them because of labor shortages. 104 There is a striking parallel between the hiring policies of the Akron mills and those of the Michelin rubber company at Clermont-Ferrand in France. As Herbert Lottman has written, Michelin's workers were drawn from the remote farm villages of the Auvergne. These strong young men were willing to work for low wages and "were hardly likely to be confused with their brothers in the industrial North-descendents of the Communards, ancestors of the Communists, Socialists and Trotskyists, or anarchists of our time . . ."105 Clermont-Ferrand is the commercial center of the Auvergne. Much of the farmland is marginal and the Occitan-speaking population would have had much in common with the Appalachian mountain men who flocked to Akron.

Akron's proximity to Appalachia also meant that "excess" labor could be returned when not needed. Work in the rubber mills was often seasonal, with greater demand for tires in the warmer months. Supply and demand for labor power was also affected by the booms and busts of the business cycle. The sociologist Alfred Winslow Jones claimed that the Southern migrant proletariat in Akron had a relatively undeveloped class consciousness,106 with their fierce individualism and American "nativism" conflicting with collectivist ideologies. Yet the proposition is dubious, or at best overdrawn. As Marx has insisted, consciousness develops from social being, and collective struggle can trigger leaps in class consciousness. The harsh conditions of life and work in Akron would turn this Southern "light infantry of Capital" into a veritable proletarian army in the bitterly fought class war in America. They would embrace the new creed of industrial unionism with the same fervor with which they embraced the gospels in their churches. Furthermore, this syndicalist consciousness translated into considerable support for an independent working-class political party. Akron-and the local organization of the United Rubber Workers in particular-was a bastion of the Farmer-Labor Party. 107