CHAPTER 2

THE COST OF FREE TRADE

June 1979 was like any other month at the Rubbermaid plant in Wooster, Ohio. Out on the factory floor, huge quantities of plastic were being fed into massive injection molding machines, where it was melted down and then pressed into dozens of familiar shapes. Like clockwork, the big machines belched out storage bins, kitchen containers, wastebaskets, and other household products. Twenty-four hours a day the machines hissed and clamored, making staples for American homes—just as machines had been doing there for nearly half a century.

All across America it was much the same story inside busy factories that month. Orders for machine tools, a reliable barometer of the nation's industrial might, were up a robust 32 percent over the previous year, affirming the status of the United States as the world's greatest manufacturing power, the country where more cars, steel, airplanes, cameras, stoves, refrigerators, farm implements, textiles, and glassware were made than in any other country in the world.

A few weeks later, statisticians at the Bureau of Labor Statistics in Washington began compiling

June's employment numbers from reports submitted by hundreds of thousands of workplaces across the nation. When all the numbers were in, BLS tabulated that manufacturing employment in the United States had reached 19,553,000 jobs in June—a new high. BLS took no special note. Employment fluctuates, and although the number of manufacturing jobs was expected to go up and down in the months to come, everyone assumed that in the long run the total would just continue to go up. It always had.

No one knew that June 1979 represented the zenith in manufacturing jobs, not a stepping-stone to greater things. Never again would so many Americans be employed in manufacturing.

National policies that had been undermining domestic manufacturing for years were finally catching up with workers on the factory floor. Years of low tariffs, unrestricted imports, and a refusal by a succession of administrations and Congresses to insist on reciprocal trade with our trading partners all began to take a harsh toll on the nation's manufacturing base after June 1979. That toll also went largely unnoticed, except by those who were directly affected. Unlike wars and natural disasters that capture the public's attention, the slow, steady erosion of the job base just wasn't headline news. But for millions of working Americans, it would be a cataclysmic event that demolished their standard of living and irrevocably changed their way of life.

Workers at the Rubbermaid plant in Wooster

would live this story.

It was here in the 1920s that Rubbermaid engineered its famed rubber dust pans, an eminently practical item that became the first of many products that made Rubbermaid a household name. The company opened plants elsewhere, but the big gray stone building on Akron Road remained its heart and soul. Together with the company's nearby corporate staff, Rubbermaid's 1,600 employees made it the largest employer in the northeastern Ohio town of 24,000.

A good corporate citizen, Rubbermaid contributed to the arts, led a drive to refurbish an old movie theater into a cultural center, and sparked a downtown renaissance by opening a retail store on Market Street. It was perennially named one of America's finest companies and more than once snared *Fortune* magazine's top honors as "America's Most Admired Company." No one who worked the factory floor was getting rich. But it was steady work, and it was not uncommon to find three generations of a family on the payroll. Judy Bowman, who worked there for thirty-two years, recalled, "It was like a big family."

The forces eroding America's industrial base did not hit Rubbermaid in full until the 1990s. One of the most severe tests came in 1995 when the company lost a contract to supply Walmart with dozens of household items. Walmart, famous for squeezing suppliers for the lowest possible price and pressuring them to go offshore to keep costs down, balked at a proposed price hike from Rubbermaid. Rubbermaid

had opened plants in Mexico, Korea, and Poland, but the bulk of its manufacturing was still in the United States. When negotiations failed, Walmart severed the relationship and turned to other suppliers, delivering a body blow to the company's U.S. manufacturing.

Later that year, Rubbermaid cut its workforce by 9 percent and closed nine facilities—the first significant retrenchment in its history. Four years later, the company was bought by Newell Corporation, a global consumer products giant known for cost-cutting and cutthroat management. Newell shifted work from Wooster's rubber division to Mexico and relocated the corporate staff to Atlanta. The Rubbermaid workforce in Wooster was reduced to less than 1,000.

None of the Wooster workers had any illusions about their new bosses, but even so, they were in for a shock. On December 10, 2003, Newell announced that the Wooster plant would be shut down within months. Shock and disbelief swept through the Rubbermaid community. Many employees had never worked anywhere else. All of them wondered what they would do.

Over the next few months, the plant was a scene of almost unbearable sadness to those who were left. "Little by little they took the machines out, one after another," Opal Drysdale, who worked in the plastics unit, told a local reporter. "All we could do was watch. It was really depressing; a big part of our lives was disappearing in front of us."

After the doors finally closed, workers soon exhausted their meager severance packages, and they struggled to find new employment. Some did, often just temporary jobs without benefits that paid 30 to 40 percent less than they'd been earning.

Judy Bowman had landed a job at Rubbermaid right out of high school. In the thirty-two years since, she had worked every shift, every day of the week; she had also worked almost every job, but mostly on the production line that made the popular rubber bath mats, until that work was sent to Mexico.

"I liked my job and I liked the people," Bowman said—so much so that the company called on her to lead guided tours of the plant for sales reps and visiting chamber of commerce types. She would show them how products were made by the big machines and then explain a little of the plant's history.

She was earning $13 an hour as a custodian in the plastics department when the plant closed. She was offered a job loading Rubbermaid products at the adjoining distribution center, but with nagging injuries from her years in the production line, she knew she wouldn't be able to do the heavy work required.

So for the first time in thirty-two years, she entered the job market. She answered an ad from the College of Wooster for a night custodian, but the college decided to use temps from a local agency. She applied to a new Hilton hotel to be a maid, but the job went to a woman with more experience. She applied for a

custodian's job at a local hospital, but nothing came of that either. Months later she got a part-time job as a janitor at a local school district, working one or two days a week, for $7.77 an hour. As a full-time job, that would have added up to about $16,200 a year, slightly above the poverty level for a family of four.

The city of Wooster was shaken by the loss of its anchor company, but after the initial trauma the town tried to put its best foot forward, as towns are wont to do after the loss of a vital institution. Local officials said that Rubbermaid wasn't the only plant in town; there were others that could help pick up the slack. They pointed to other companies that could help ease the transition: LuK Inc., an auto parts supplier; Tekfor USA, an iron and steel forger; Bosch Rexroth, a hydraulic equipment maker; and Robin Industries, an auto components maker. But soon those plants would be shaken by the same forces that had destroyed Rubbermaid in Wooster: as companies began shipping work off to Mexico or relying on imports, workers were laid off.

In early 2010, the unemployment rate for Wayne County, Ohio, reached 11.1 percent. With tax revenues plummeting, Wooster-area agencies tightened their belts. The sheriff laid off thirteen deputies, demoted six sergeants to deputies, and cut the road patrol from twenty-one to twelve.

For Wooster's Rubbermaid workers, their manufacturing jobs had been a dependable way to earn a living, provide for their families, and spend their

working lives in a hospitable workplace. The big stone building on the hill had been good to them—why else would so many of them have worked there for ten, twenty, even thirty years, often becoming the second or third generation of their families to do so?

But when the plant closed, few thought of seeking a manufacturing job elsewhere. Andrew Byers was just one of many who believed that within a few years Rubbermaid and other companies would be making everything overseas, then shipping back to the States. "There isn't going to be anything left but warehouses," he predicted.

The data bear him out. By 2011 the number of manufacturing jobs had fallen from 19.5 million in 1979 to 11.6 million—7.9 million jobs had disappeared. More dramatic was the percentage of the total workforce that those jobs constituted. The good-paying jobs represented 18.2 percent of the workforce in 1979; by 2011 just 9 percent of U.S. jobs were in manufacturing.

So what did the Rubbermaid workers do?

Some took part-time jobs, some became temps, and others retired. Some, like Deb "Cuddles" Hoffman, trained for new jobs. Cuddles signed up to learn how to drive a school bus, a yearlong course of rigorous instruction in every facet of driving a school bus. There was no guarantee at the end that she would get a job, but she thought it was worth the gamble.

Why a bus driver?

"They can't eliminate the kids," she said. "They're

not going to ship my kids to China."

OPENING THE DOOR TO IMPORTS

Across America, plants like Rubbermaid in Wooster have disappeared. You can see what remains of them in the abandoned factories that blot our cities and towns and in the novelties and collectibles that turn up in flea markets, products stamped MADE IN USA—flatware, toasters, cameras, eyeglasses, tools, toys, watches, jewelry, and dozens of other everyday items that are no longer made in the United States. Entire industries that were the backbone of America's economy are going or gone—shoes, apparel, textiles, machine tools, luggage, glassware, refrigerators, washing machines, air conditioners, cell phones, auto parts, luggage, printed circuit boards, televisions, and telecommunications equipment.

Many other industries have been crippled by Congresses and presidents who have turned a blind eye to unfair foreign trade practices that kill jobs and destroy companies. The once-vigorous American furniture industry, centered in North Carolina, has been devastated in the last decade by waves of imports subsidized by the Chinese government. The industry lost 70 percent of its production capacity from 2000 to 2010, and during this time nearly 300 plants employing thousands of workers closed. Imports accounted for only 19 percent of the domestic market

in 1992; by 2009 the figure had risen to almost 70 percent. Another domestic industry, ceramic tile making, once boasted dozens of companies. Today only one major manufacturer is left: Summitville Tiles in Ohio. The company's president, David Johnson, told *Manufacturing & Technology News* that the "industry is just about finished."

And it's getting worse. The last decade alone saw the closing of 14 percent of the nation's factories (56,190 establishments), the sharpest industrial decline in American history. A record 5.7 million factory workers lost their jobs during this time. This 33 percent decline even exceeded manufacturing job losses during the Great Depression, according to Stephen Ezell, a manufacturing industry analyst. As those jobs have vanished, millions of middle-class Americans—whose income has stagnated or gone down—have struggled.

The decline of U.S. manufacturing isn't a new story. But what hasn't been told is how it happened, the role played by Wall Street and the ruling class, why it need not have played out the way it did, and why it symbolizes the end of an American era on the global stage. The demise of U.S. manufacturing dominance is usually pictured as the unavoidable result of the rest of the world catching up to the U.S. economy. But what doomed manufacturing jobs was largely an economic policy crafted by Washington and Wall Street that was sold to the country as a policy that would benefit the nation as a whole. Instead, the pol-

icy enriched a few at the expense of the many. They called it "free trade."

After the Second World War, the United States lowered tariffs on imports and thus opened its doors to manufactured products from abroad, in part to aid war-torn Europe and Asia. Because the United States was the world's richest nation, policymakers maintained that we could afford to lower trade barriers without risking any economic harm to our own citizens. How could a few trinkets and cheap transistor radios from Japan possibly hurt the great American economy? Plus, they contended, it would be good for the U.S. economy: the more other countries prospered by selling to us, the more they could buy from us, which in turn would create more jobs at home. Reciprocity with our trading partners, we were told, would make it all work.

Manufactured goods surged into the American market. The United States kept posting trade surpluses throughout the 1960s, but as imports continued to swell the surpluses dwindled—from $5 billion in 1960 to just $607 million in 1969. By 1972 a miniscule surplus had turned into a whopping $6.4 billion deficit. The U.S. market was open, but foreign markets for U.S. goods were not, and imports began to erode employment in long-established industries such as apparel, shoes, and textiles. The United States posted an anemic surplus in 1973 of $911 million, and that was the last trade surplus the country would ever see. Since then, there have been only

deficits—for nearly forty consecutive years.

The term "trade deficit" may seem abstract, but a nation's trade balance is a fundamental indicator of the economic well-being of its workforce. When trade is in balance—when imports and exports are roughly the same—there are plenty of opportunities for good-paying jobs. But when imports swamp exports, as is the case in the United States, basic industries that provide solid support for middle-class Americans are undercut, and jobs vanish.

By the 1970s, it was clear that free trade wasn't going to be good for America's workers. The steady erosion of good-paying jobs was under way. In the beginning it affected only blue-collar workers in manufacturing, but eventually it would spread. All the forces were in play that would systematically undermine and depress the earnings of millions.

If Washington had been truly concerned about the livelihoods of working people, it could have dealt with the growing trade issue then and there by putting in place a system that was fair to all. Instead, it passed the Trade Act of 1974, which fostered the illusion that Washington cared but in fact ensured the continuation of the same policies that were destroying jobs.

The act was prompted after Congress held hearings on foreign trade practices that were hurting American manufacturers. It was the first of what would become a steady stream of trade bills in the next few decades. Sponsors claimed they were designed to

safeguard domestic workers and force our trading partners to open their markets to American goods.

The Trade Act of 1974 was a huge bill filled with arcane provisions, but its main purpose was to show our trading partners that this country was no longer going to be Mr. Nice Guy. The act would be a template for Congress for decades to come—a sort of how-to guide to pacifying workers in the short term by promising action on trade, but doing nothing to solve the problem in the long run, thereby bowing to the wishes of Wall Street, which would make trillions on globalization.

In urging adoption of the 1974 act, Democratic senator Russell Long of Louisiana said that "the United States can no longer stand by and expose its markets, while other nations shelter their economies —often in violation of international agreements . . . [with] practices which effectively discriminate against U.S. trade and production." Republican senator William Roth of Delaware claimed, "This bill strengthens basic legislation and statutes designed to protect our industries from unfair or disruptive import competition."

The bill did nothing of the sort. Despite the new legislation, conditions worsened. The deficit in goods soared from $6 billion in 1974 to $34 billion in 1978, an increase of 467 percent. More industries came under intense pressure from imports, which threatened yet more jobs. That meant it was time for Congress to pass another trade bill. Lawmakers were

scamming the American people once again.

This time they called it the Trade Agreements Act of 1979. While the title was slightly different, the speeches coming out of the Capitol sounded a great deal like the speeches that had praised the 1974 trade bill.

Democratic senator Daniel Patrick Moynihan of New York described the 1979 legislation as the most momentous trade act in half a century: "It begins a new era . . . that has one specific purpose above all: to see that non-tariff barriers to trade come down.... [And] to stop that hemorrhage of American jobs and industries profits."

Republican congressman Frank Horton of New York said the act "recognizes formally for the first time that unfair subsidies are damaging to international trade. It gives us power to strike back if a foreign nation harms our industry." Russell Long, who only five years earlier had given a ringing speech about the 1974 act's tough provisions, made similar claims for the 1979 law: "It will permit the United States to attack foreign barriers to our exports and it will provide more efficient defenses to unfairly traded imports."

Once again, misleading speeches were intended to pacify working folks and make them think that Washington was looking out for their best interests. In fact, lawmakers were looking out for their own best interests. Five years later, in 1984—as the goods deficit topped $100 billion for the first time—Con-

gress returned to the get-tough warpath. Lawmakers railed about the unfairness of our trading partners, and they proposed remedies that they maintained would open foreign markets to American goods. In the Trade and Tariff Act of 1984, lawmakers asserted that they were beefing up the law to aid companies harmed by foreign trade practices.

In lauding the bill, Republican senator John Danforth of Missouri recited a script handed down from earlier debates. Danforth promised that the new law "significantly strengthens . . . that provision in the law which provides our government with the ability to retaliate against unfair practices against U.S. exports." Democratic senator Lloyd Bentsen of Texas praised the bill for setting the United States on a new course and scolded our trading partners: "The United States has taken the lead in building support for an open international trading system. The rest of the world, unfortunately, has not reciprocated. Our partners in trade have been quick to take advantage of our open markets while often managing to keep theirs closed or protected."

Three years later, the goods trade deficit soared to $160 billion, yet another record. Once more, sounding as though Congress was suffering from collective amnesia, lawmakers said that they were getting serious as they crafted the Omnibus Trade and Competitiveness Act of 1988. Republican representative Nancy Johnson of Connecticut called it a "tough trade law" providing real reform. "Its tough penalties

include mandating retaliation when negotiated agreements are broken, compensation for parties that are injured by dumping," she said. Her Republican colleague Don Sundquist of Tennessee said that the bill would allow the United States to "go to our trading partners . . . [as] a strong, unified front against unfair foreign trade practices." Democratic representative William J. Coyne of Pennsylvania said that it gave the United States all the tools "we need to strengthen America's hand against unfair trade practices and start on the road toward reducing this enormous trade deficit." Democratic senator Bennett Johnston of Louisiana said that the trade law sent a forceful message to the rest of the world: "When the United States and its products are discriminated against by other countries, we are not going to take it lying down; we are going to do something about it."

It did no such thing. But that's because Congress's actions ensured that the country's workers would have to continue "to take it lying down." Five years later, another trade bill to open foreign markets was once again back before Congress. This was NAFTA (the North American Free Trade Agreement), a treaty that knitted together the economies of the United States, Mexico, and Canada by eliminating all tariffs among them to promote the free flow of goods. Even though U.S. manufacturers of autos, machinery, apparel, electronics, and many other products were sending a steady stream of jobs to Mexico, the United States was selling slightly more goods to Mexico than

it bought, so in 1993 the United States had a relatively tiny trade surplus with Mexico of less than $2 billion.

Supporters seized on this to mount their most grandiose case ever: by lowering tariffs, NAFTA would be a bonanza for American exporters and provide high-paying jobs to U.S. workers. "We will have greater access to a rapidly expanding market that hungers for U.S. consumer products," contended a bullish Republican representative, Jim Kolbe of Arizona. But with millions of manufacturing jobs already lost and small businesses hurt by imports since the 1970s, many worried that NAFTA would accelerate the slide, and fierce opposition mounted against the trade pact.

Congress brushed aside concerns about jobs. "NAFTA will provide trade reforms that will lift all boats with a rising tide of prosperity," proclaimed Senator Orrin Hatch, the Utah Republican. "The United States will enforce its own domestic trade laws to deal with unfair trade practices." Democratic senator John Breaux of Louisiana predicted that American workers "will prosper and increase in numbers as a result of a free-trade agreement." In casting his vote for NAFTA on November 20, 1993, Republican senator Phil Gramm of Texas said that America would one day look back fondly on the day NAFTA was approved: "I think as we look back, people a decade from now will have a hard time understanding what was controversial about NAFTA."

Dead wrong. As usual, Gramm and the others were speaking for the super-rich ruling class and Wall Street. At the time, Gramm's wife, Wendy, was chairman of the Commodity Futures Trading Commission (CFTC) and President Reagan's "favorite economist." It was during her tenure that the CFTC exempted the trading of energy derivatives from regulation. When she left the CFTC, she took a seat on the Enron board of directors. Thanks in part to the unregulated derivatives, Enron collapsed, taking with it the jobs of thousands of employees and wiping out their retirement accounts. It was the canary in the coal mine for what would prove a few years later to be the largest economic failure since the Great Depression.

A decade after NAFTA's passage, the trade agreement was more controversial than ever. The claims of its supporters turned out to have been hollow, and the fears of its opponents came true. The much-vaunted trade surplus with Mexico that backers used to engineer NAFTA's passage quickly evaporated, replaced by a trade deficit that became the norm. The cumulative deficit with Mexico had ballooned to $698 billion by the end of 2011. Sometime in the next five years the total will approach $1 trillion, and another major milestone for American jobs deliberately terminated by the U.S. Congress will have been reached.

Rather than stimulate exports to Mexico, NAFTA triggered a rush of American companies to invest south of the border, and Mexican imports to the

States surged. In the five years before NAFTA, Mexican imports increased 51 percent. In the five years afterward, they jumped 91 percent. General Motors even built housing there for its new workforce. Indeed, it felt almost as if entire portions of the U.S. economy had, as it were, gone south. As for exports to Mexico, the growth rate actually declined, according to the Washington-based Economic Policy Institute (EPI).

The numbers provided a warning of what was in store for American workers: In the five years before NAFTA, the United States maintained an average trade surplus of $168 million with Mexico. In the five years after, that number plunged in the other direction, to an average annual trade deficit of $12.5 billion.

After NAFTA, as companies large and small began shifting work to Mexico, the Labor Department was flooded with thousands of petitions from workers seeking unemployment benefits based on jobs lost through trade. Among them:

Woodward Governor Company, Stevens Point,
Wisconsin: 1,330 workers
Smith Corona Corporation, Cortland, New York:
874 workers
Oxford Industries, Dawson, Georgia: 340 workers

Sara Lee, Martinsville, Virginia: 300 workers
Key Tronic Corporation, Cheney, Washington:
277 workers
Johnson Controls, Bennington, Vermont:
276 workers
Emerson Electric Company, Logansport, Indiana:
200 workers
Alcatel Data Networks, Mount Laurel, New Jersey:
120 workers
Parker Hannifin, Berea, Kentucky:
114 workers

By 2011 an estimated 1.5 million American jobs had been eliminated by imports from Mexico, according to Economic Policy Institute calculations. EPI estimated that exports to Mexico supported 791,900 jobs in 2010, meaning a net loss of about 700,000 jobs. In 2004 EPI had estimated that lost wages from NAFTA job losses were costing American workers $7.6 billion a year. That's the equivalent of all the annual income of 150,000 American families.

To be fair, the fault lies not just with Congress. Every occupant of the White House, regardless of party, has been equally zealous in selling out workers on trade. For decades, every president has been an ardent advocate of unrestrained free trade and has resisted any significant step that might be interpreted as protectionist, even though our trading partners

have been doing the opposite.

In 1976, when the U.S. shoe industry protested that it was being engulfed by cheap, government-supported imports from Brazil, President Gerald R. Ford refused to provide relief. Even though the U.S. International Trade Commission, itself a bastion of free-trade policies, had concluded that the American shoe industry was being harmed by Brazilian government policies that violated international trade law, Ford refused to side with the U.S. industry.

To impose tariffs on Brazilian shoes, he said, "would be contrary to U.S. policy of promoting the development of an open, nondiscriminatory and fair world economic system." Two years later, Democratic president Jimmy Carter also declined to impose tariffs on Brazilian imports. At the time of Ford's decision, the American shoe industry employed 172,000 workers. By 2012, fewer than 15,000 worked in the industry, according to the Labor Department.

In 1985, after thousands of textile industry jobs had been lost to imports, Congress passed legislation to impose higher tariffs on textile imports, but President Ronald Reagan vetoed the bill, calling it protectionist and a violation of free trade. "We want to open markets abroad, not close them at home," he said in a refrain that had become distressingly familiar to American workers in many industries. Even though he had just killed a bill that would have saved jobs, Reagan sought to assure textile employees that he was on their side and insisted that he would not

"stand by and watch American workers lose their jobs because other nations do not play by the rules." In fact, that's exactly what he did. There were 746,000 textile industry workers in 1984 when Congress and Reagan took up the issue of textile tariffs. By the time he left office, the number was down to 728,000. In 2011, only an estimated 120,000 workers were left, according to the Labor Department.

NAFTA was negotiated under President George H. W. Bush, who pledged that the agreement would permit the United States to sell to Mexico "even more of the goods we're best at producing: computers, manufacturing equipment, high-tech and high-value products." But NAFTA was sold to Congress and the nation by Bill Clinton. "I believe that NAFTA will create a million jobs in the first five years of its impact," Clinton proclaimed on September 14, 1993. "NAFTA will generate these jobs by creating an export boom to Mexico." Clinton could not count any better than his predecessors.

During the George W. Bush administration, the U.S. International Trade Commission ruled in four cases that Chinese steel imports were unfairly harming U.S. businesses and workers and recommended that the president impose tariffs on Chinese goods. But in every case Bush declined to do so: "I find that the import relief would have an adverse impact on the United States economy clearly greater than the benefits of such action," Bush wrote in denying relief.

President Obama has given tentative approval for a

plan to open U.S. highways to commercial trucks from Mexico, fulfilling one of NAFTA's promises. Every president since the first George Bush has supported the idea of allowing trucks from Mexico to deliver goods to the United States, a policy that would throw thousands of U.S. truckers out of business.

Who says that bipartisanship is dead in Washington? It's worked to perfection in trade policy—with devastating consequences for working Americans. Despite all the bluster out of Washington demanding fair trade policies by our trading partners, the United States hasn't had the political will to back up the rhetoric. To do that in all likelihood would require administering a dose of what the ardent free-traders call protectionism. Our trading partners know that's not going to happen. The pressure from powerful multinational corporations and the uproar from some economists and media personalities would make any move to establish trade restrictions—even temporarily—next to impossible.

So the charade goes on. While Washington mouths platitudes and gives lip service to trade reform in a never-ending cycle, the trade deficit soars. Thanks to both parties, the cumulative trade deficits since 1976 add up to a staggering $10 trillion. That's "trillion" with a T, an ocean of red ink that translates into millions of lost jobs. But you never hear about that. The politicians and the news media only talk about jobs created by exports. They never mention the jobs

eliminated by imports.

OUR GREATEST EXPORT

On any given day, the huge gantry cranes at the port of Long Beach in California are busy hoisting bulk containers onto the decks of freighters bound for China. Inside these twenty-ton boxes the size of railcars are America's exports.

Politicians and economists have long hailed exports as America's economic future. Export jobs pay more than other jobs, they say. Exports help reduce the nation's trade deficit. And exports are a sign that America is competitive in the global economy.

So what's in those colorful containers stacked several stories high on the decks of these gigantic ships bound for China?

Scrap paper.

More containers leave U.S. ports loaded with old cardboard boxes, shredded documents, paper bags, and other paper scraps than any other product. "The U.S. has become to waste-paper what Saudi Arabia is to oil," the *Journal of Commerce* says. In 2010 an estimated 20 million tons of waste paper was shipped from U.S. ports. That filled a lot of containers, but it isn't worth much as an export. The total value of scrap-paper exports has recently been as high as $3 billion a year, according to the U.S. Census Bureau—

less than 1 percent of the value of the $365 billion in merchandise the Chinese shipped to us in 2010.

Once they leave our ports, our old boxes and paper bags travel six thousand miles to China, where they are recycled into new boxes. These boxes are used to pack products made in China—toys, electronics, computers, clothing, shoes, furniture, tools, and countless other consumer goods that were once made in the United States. Then they're loaded into containers and shipped back to the United States, mostly to the ports of Long Beach and Los Angeles.

All this activity at our ports creates work. But what kind?

South Alameda Street in Long Beach is a busy four-lane roadway that slices through a district of warehouses, rail yards, and truck depots about ten minutes north of the port of Long Beach. It is the "Recycling Corridor," so named for its ragtag collection of businesses that recycle paper and scrap metal, another big export to China. At Corridor Recycling, the gates open at 6:00 AM, and pickup trucks piled high with old boxes begin streaming in. Drivers bring scraps scavenged from just about any place that has old cardboard boxes—shopping centers, supermarkets, retailers. They weigh in at a gatehouse, then dump their old boxes and other scrap paper into a mountain of refuse on the grounds. On a good day, drivers say they can earn as much as $90—not the wages some once enjoyed when they held manufacturing jobs, but "for now," as one told a *Wall Street*

Journal reporter in 2011, "this is a help."

The scrap paper is bundled into bales and packed into containers, then trucked to the port and loaded onto freighters. This creates some jobs for the recyclers, the brokers who arrange shipping, and the crane operators who load the containers. But it doesn't do much to lower the trade deficit or to provide good-paying jobs.

But there is a big winner. One company has come to dominate the scrap export market. It ships 225,000 containers of scrap paper from American ports, more than any other company. Its revenues have steadily risen as the demand for American scrap in China has soared. Probably only one person in a million would recognize the company's name—American Chung Nam—but anonymity suits the company just fine. American Chung Nam is the American branch of the global business empire of a wealthy Chinese investor, Cheung Yan, said to be one of the richest women in China.

Cheung Yan is worth at least $900 million, and before the global recession she was worth several times that, according to *Forbes*. She made her fortune largely by cornering the market on scrap-paper exports from the United States. She ships old cardboard boxes and other paper debris to her Chinese company, Nine Dragons Paper, which recycles the trash into boxes that Walmart, Target, Home Depot, and other companies use to ship their Chinese-made products to the United States.

Founded in 1995, Nine Dragons is one of the largest paperboard producers in the world. Even with the downturn in the world economy, Nine Dragons had record revenues of $2 billion in 2011. The company has four modern plants in China, including one of the largest paper mills in the world—with plans for two more factories either under construction or in the works.

Cheung Yan's business is all over the world, but the heart of it remains the old boxes and scrap paper that unemployed Americans and others gather up and deliver to recycling centers in Long Beach and other U.S. cities.

But surely we export something of more value than scrap?

Yes indeed. On the list of our top ten exports compiled by the U.S. Commerce Department each year can be found automobiles, pharmaceutical products, and automotive parts. Those three categories accounted for $103.6 billion in exports in 2009. But imports of those same goods were more than double our exports—$209.6 billion. And that's been happening since the U.S. trade balance dipped into the red. Exports go up, but imports go up even more.

Which is why America has the highest trade deficit of any nation in the world.

As the trade gap widens in each decade, every administration in both parties has promoted the myth that exports will be the answer to job creation in the United States, while refusing to acknowledge

the devastating logic of that claim: if exports help employment, then imports must help unemployment. Imports kill good-paying jobs at home, and we have been importing a lot. In 1980 we imported 7 percent more goods and services than we exported. In 1990 we imported 15 percent more. By 2000 the gap had shot up to 35 percent. And in 2008, before the global economy went south, it had risen to 38 percent.

Instead of admitting this, we talk about the exports:

> Our booming export business . . . is growing four times as fast as the volume of imports. And much of this export surge is in manufacturing exports. Today industry after industry is finding itself in an export boom (Ronald Reagan, 1988).
>
> Each additional billion dollars in exports creates nearly 20,000 new jobs here in the United States (George H. W. Bush, 1991).
>
> Every time we sell $1 billion of American products and services overseas, we create about 20,000 jobs at home (Bill Clinton, 1993).

Jobs in exporting plants pay wages that average up to 18 percent more than jobs in non-

> exporting plants (George W. Bush, 2003).
>
> We need to export more of our goods because the more products we make and sell to other countries, the more jobs we support right here in America (Barack Obama, 2010).

Many of America's fastest-growing exports in recent years are commodities you'd expect to see shipped from a Third World country: nuts, animal feeds, rice, oilseeds and food oils, sorghum, barley and oats.

There is only one category in which the nation is an undisputed export giant—civilian aircraft. But its days as an export powerhouse are numbered.

BOEING'S FAUSTIAN BARGAIN

The United States had a $43.6 billion trade surplus in civilian aircraft in 2010, when it exported $67 billion in passenger jets and imported $23.4 billion. Adjusted for inflation, that was about equal to the industry's trade surplus of twenty years earlier. In 1990, roughly 400,000 production workers were employed in the U.S. aerospace industry; in 2010 there were only 275,000. So even in an industry where the United States is said to enjoy a competitive advantage, we are losing jobs. Why? Like other multinationals, Boeing has been steadily moving

work offshore.

To build its latest plane, the much-anticipated 787 Dreamliner, Boeing turned to suppliers in Sweden, Italy, South Korea, and China to make sections of the plane that previously would have been made in America by Boeing or domestic suppliers. Fully 70 percent of the Dreamliner is foreign content, according to the Society of Professional Engineering Employees in Aerospace, the union that represents Boeing engineers. In contrast, Boeing's 727 was originally built with about 2 percent foreign content.

Outsourcing is supposed to save money, but in Boeing's case it backfired. The Dreamliner came in at several billion dollars over budget and three years behind schedule before it made its first flight in late 2011. Many of the problems stemmed from Boeing's over-reliance on a vast web of global suppliers, some of whom weren't up to the task. Some components were poorly made; others were missing crucial parts. There were problems with the environmental controls and electrical systems. Subcontractors who missed deadlines disrupted the production schedule for the entire plane.

"We gave work to people that had never really done this kind of technology before, and then we didn't provide the oversight that was necessary," Jim Albaugh, the company's commercial aviation chief, told a group of Seattle business students in 2011. "In hindsight, we spent a lot more money in trying to recover than we ever would have spent if we tried to

keep many of the key technologies closer to Boeing." In other words, Boeing would have been better off had it done the work domestically.

Does this mean the company will bring jobs back to the States? Hardly.

The most unsettling thrust of Boeing's offshore strategy is the Faustian bargain Boeing has made with China.

China is buying more Boeing planes than any other country except the United States, and as a trade-off Boeing is shifting more and more of its aircraft production to China. Boeing has cut deals with China's largest state-owned aviation company, Aviation Industry Corporation of China (AVIC), to make parts for Boeing 737s, 747s, 767s, 777s, and now 787s at plants in China. Boeing officials say that more than six thousand Boeing planes worldwide use Chinese-made components.

For the Dreamliner, Chinese factories were, for the first time, the exclusive manufacturer of several crucial components, including the rudder, the wing-to-body parts, and the leading edge of the vertical fin. It's no wonder that when Boeing took the Dreamliner on its global introductory tour in the fall of 2011, the first stop was China. "There's no more fitting place to come than Beijing," Boeing executive Marc Allen told the press after the 787 touched down.

Boeing began shifting work to China years ago, but the pace is accelerating. As the company expands manufacturing there, Boeing is underwriting research

and training, including a lab run by the Chinese Academy of Sciences, to explore the possibility of using more biofuels for jet fuel. The most ambitious research project to date was announced in 2011 by Boeing and the state-owned aircraft company AVIC to open a joint manufacturing innovation center (MIC) in Xi'an to increase China's "efficiency and capacity to supply high-quality parts of Boeing airplanes."

According to a Boeing press release, "the MIC, which will open in 2012, will provide classroom training for AVIC employees and hands-on training for workers in AVIC factories. The training will replicate Boeing's successful production methods for sustainable quality to strengthen AVIC's manufacturing and meet Boeing's quality, cost and delivery requirements."

Boeing and Chinese aviation officials maintain that the partnership benefits each party. Former Boeing China president, David Wang, says that China is now an "essential part" of Boeing's capability to manufacture first-class aircraft and that Chinese suppliers are gaining the know-how to do high-quality manufacturing. "So I think the interdependency means we must have continuous friendly relationship for both countries to succeed in the future," Wang says.

But will the partnership last?

At the same time it professes to be Boeing's partner, China is moving at full throttle to establish a civilian aircraft manufacturing industry of its own to

build airplanes like those it now buys from Boeing. In 2008 the Chinese Communist government created the Commercial Aircraft Corporation of China Ltd. (COMAC), a wholly owned state enterprise, to "build a large Chinese passenger aircraft that will soon be soaring through the blue skies." Composed of domestic Chinese aircraft companies, some of which are Boeing partners, COMAC has already built a prototype, the C919, a narrow-body, single-aisle plane that closely resembles Boeing's 737—the bread-and-butter plane that accounts for more than half of Boeing's orders. COMAC has taken orders from Chinese airlines for 165 of these medium-range jets and plans to introduce them into service in 2016.

Even for the Chinese, with their incredible record of economic development in recent years, creating a civilian aircraft manufacturing industry in such a short time was no small feat.

But they had a lot of help. From Boeing.

When Boeing turned to China and other suppliers to make the 787's components, it not only gave them a lucrative contract but turned over to them the technical know-how for building planes—something the company had never before done.

"Before the 787," says Dick Nolan, a former Harvard Business School professor now at the University of Washington, "Boeing had retained almost total control of airplane design and provided suppliers precise engineering drawings for building parts. . . . . The 787 program departed from this practice."

Nolan, writing in the *Harvard Business Review,* concluded that Boeing effectively gave China and other suppliers "a large part of its proprietary manual, 'How to Build a Commercial Airplane,' a book that its aeronautical engineers have been writing over the last 50 years or so." As a result, Nolan predicted, Boeing will face a "competitor from hell" that "will be different and tougher than anything Boeing has encountered to date."

And that's just the beginning. COMAC also has another passenger jet about to enter service, a regional jet called the ARJ21. Though not a direct competitor with Boeing's planes, the airplane provides more evidence of how quickly the Chinese are putting to use the technology and know-how that Boeing and other aircraft makers have turned over to them. In COMAC's view, the rapid emergence of this new industry shows the "political superiority of the socialist system which is capable of concentrating all of its resources in achieving great things."

Outwardly, Boeing doesn't express concern over China's plans to challenge the company in the civilian aircraft market, though company officials have said repeatedly that they expanded in China in part to be able to tap the fast-growing Chinese market for passenger planes. Industry analysts estimate that China will need more than four thousand new planes over the next two decades. On a visit to COMAC's Shanghai headquarters in 2011, Boeing's president, CEO, and chairman, James McNerney, was all smiles

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as he posed for photos with COMAC executives while holding a model of the C919 midrange passenger jet that is already taking orders away from Boeing.

At the end of 2011, Boeing had 160,000 employees, roughly the same number as in 1990. So at a time when the total U.S. workforce grew by 20 percent, Boeing's job force grew not at all. But that doesn't tell the full story. In 1997 Boeing merged with aircraft maker McDonnell Douglas, and when McDonnell Douglas's 60,000 former employees are counted, it's clear that Boeing's total employment fell sharply over the last two decades. Given the extent to which Boeing is building airplanes with parts manufactured offshore, the jobs that remain are vulnerable.

In contrast, the economic forecast couldn't look better at a modern Boeing plant in Tianjin, China, a historic port city southeast of Beijing. Boeing Tianjin Composites Company Ltd., a joint venture of Boeing and a Chinese government–owned corporation, manufactures components for every Boeing plane. The plant is expanding, and by 2013 the Tianjin workforce is expected to grow by 30 percent, thanks largely to Boeing.

To Boeing, Tianjin is a prime example of what the company has characterized as its "win-win collaboration" with China, a partnership that Boeing says accounts, either directly or indirectly, for 20,000 jobs in China. At the groundbreaking to expand the plant

in Tianjin, Ray Conner, a Boeing vice president, told beaming Chinese officials: "We rely on our Chinese partners to produce high-quality components for Boeing airplanes, and we are excited to expand this successful joint venture to increase production and employment."

Rather than being the positive stimulus predicted by America's economic elite, the version of free trade practiced by Washington has progressively undermined the nation's economic future. Instead of supporting American workers and domestic industries, the approach that Washington and corporate America have advanced has left employees and small industries at the mercy of unscrupulous sweatshop operators abroad and opportunistic multinational corporations at home. The resulting loss in jobs and companies has been devastating. Congress has been giving away the store for forty years, and soon there'll be precious little left unless the policy changes.

CHAPTER 3

MADE IN AMERICA?

Innovation is the pride of America. But as we show in the following stories of two companies, the benefits of innovation can be squandered all too easily, and a venture whose success could benefit the entire country can be transformed into a corporate asset that rewards only the few who own or trade its shares. Unless the companies that innovate remain securely anchored within U.S. communities, no innovation, however inspired, can provide the basis for long-term economic growth.

In the last century, America routinely created new enterprises that did just that and provided millions of jobs—businesses that produced television sets, household appliances, toys, and hundreds of other products. These inventions were often the inspiration of young men and women who were fired with an idea and who brought their products to market through grit, hardship, and the help of dedicated coworkers, launching businesses that became job creators in the American economy for generations to come.

One of the countless products that came to symbolize American know-how and ingenuity originated

in a Nebraska farm town of five hundred persons. DeWitt, Nebraska, one hundred miles southwest of Omaha, was home for eighty-four years to one of the most familiar tools to ever take its place in American homes. The product was the invention of a Danish immigrant, William Petersen, a blacksmith by trade and a tinkerer at heart who designed a pair of pliers with teeth that could be locked in place, freeing the user's hands for other tasks. He called his invention Vise-Grip. Petersen began producing the locking pliers in his shop in 1924 and sold them to local farmers and mechanics out of the trunk of his car.

The tool was an immediate success, and Petersen soon converted a defunct drugstore in DeWitt to a factory to produce Vise-Grips for sale nationally. The company weathered the Depression and prospered during World War II, when thousands of Vise-Grips were used by U.S. defense contractors, builders of Liberty cargo ships, and the British aircraft industry.

The tool was so popular that eventually Vise-Grip employed more people than DeWitt had residents. These were good jobs, with decent benefits and a Christmas bonus to round out the year, plus the possibility of near-lifetime employment and perhaps even a job for a son or daughter. William Petersen's sons and daughter followed him into the business and kept its family-run spirit alive. They helped employees with mortgages and would sometimes swallow increases in health insurance costs rather than pass them on to workers. It was hard work

molding and stamping out the tools, but employees felt that they would always have a job as long as they worked hard. They knew that in tough times the family, confident that business would eventually rebound, would take less profit rather than lay them off.

Over and over in their annual reports, the Petersens stressed the debt they owed to their employees: "We want to say how highly we regard the people who make up this organization," the family said in a 1972 report. "It is their loyalty, industry, and skill which, over the years, have made it possible for this firm to grow . . . every job is an important job and every worker a valued and respected person." Generations of townspeople felt much like Linda Colgrove, who performed a variety of jobs at Vise-Grip in the nearly four decades she spent there: "You couldn't ask for a better place to work."

From this out-of-the-way village in rural Nebraska, Vise-Grips poured forth by the millions to supply the U.S. market and overseas customers as well. By the mid-1970s, more than 30 percent of the 7 million tools made in DeWitt were sold abroad. A decade later, the plant was making almost as many Vise-Grips for export as it had once made for U.S. consumers. Before economists and politicians began touting export jobs as a cure-all for America's job woes, Vise-Grip was ahead of the curve. Here was a unique product invented in the USA, manufactured in the USA, and shipped around the globe from the USA. It was a

perfect template to map out America's future in the global economy.

The Petersen family owned the company for sixty-one years before selling it in 1985. In the following years Vise-Grip passed through more owners, but through it all the DeWitt plant remained central, producing the famous wrench, what the company called "the world's most versatile hand tool." In 2002 the company was bought by the Newell Corporation, a multinational corporation known for its rigorous cost cutting. Then everything changed.

Randy Badman remembers the time well. Badman was typical of so many in the plant: his father, mother, uncle, aunt, and grandfather had all worked there. He'd been there thirty-three years the day Newell arrived.

He had started as a tool and die maker, manually cutting the dies that were used to shape the components that were stamped out of molten steel by the plant's big presses. The plant did it all. "The raw steel came in one end, and the Vise-Grip went out the other," Badman said. In between, workers made virtually everything else: they forged the steel components, cut the teeth in the pliers, even made the screws, springs, and rivets that made the locking pliers unique.

In the 1980s, the plant had begun converting to computerized numerical control (CNC) machines to do the work long done by hand. When the first one arrived, the company sent Badman to Omaha for

training in how to program and operate the equipment that was revolutionizing factory floors across America. As more CNC machines arrived at the plant, Badman's responsibilities grew. Eventually he headed the entire thirty-nine-man round-the-clock department of tool and die makers. The new machines were reducing manual labor, but even with the new efficiencies employment grew, rising to more than six hundred.

After Newell bought the plant, the spirit that had powered decades of growth and job creation vanished. "Everyone had a very uneasy feeling when it was sold," Badman recalled. "You never know once a big corporation gets a hold of something."

Badman said it wasn't long before the new corporate owners began insisting on cuts—they told him to cut 5 percent in his budget. From then on, all he heard was, "You've got to cut, you've got to cut, you've got to cut." So, Badman said, "we gave them that, and then they wanted more. Once that started, we knew it was not going to be good."

Workers at the non-union plant took a series of voluntary pay cuts, and Badman said they took a hard look at all internal processes to see what could be streamlined. "We did all the things you can do," Badman said. Some changes made the plant more efficient, "but that can only go so far," Badman said. "When you get a little too far, then you have to stop and say, 'Okay, we've cut it to here. This is good. We're making good profits. Now let's run with it.

Let's sell more because we're more efficient.'"

Early one morning in 2005, Badman was working at his desk when he saw his boss pass by on his way to human resources. Soon Badman was summoned to the same office. Seated behind a desk was a woman from Newell he did not know, and in front of her was a pile of papers. She told him to sign them. The company was "realigning," she said, and he was being dismissed. He was escorted through the plant and out the door of the factory where he'd worked for thirty-six years and told to contact HR for an appointment to come in and clean out his desk. That same day twelve other midlevel managers and supervisors, including Badman's boss, were fired. As bad as things had been, Badman was stunned. "You don't think that they're going to take out everybody who knew what was going on and who was running the place," he said.

Three years later, in 2008, Newell dismissed the remaining three hundred workers, closed the plant, and announced that Vise-Grip production would be shifted to China. In an instant, the low-slung sprawling factory that had been the lifeblood of DeWitt for eighty-four years fell silent.

"What you miss now is the hum—the hum of the factory," Badman recalled. "You could have your windows open on a summer evening and you'd hear the presses going up and down. And now there's silence. Nothing."

Looking back, Badman believes that Newell had no

intention of keeping the plant going and that all its efforts were aimed at strangling it. Why else would they jettison the entire supervisory crew in one day and throw the place into turmoil unless they were planning to shut it down anyway?

"I think they wanted to squeeze us until they couldn't," he said. "Then they went overseas."

Badman's assessment was right on the money. If there were a Fortune 500 for wholesale terminations, Newell would rank near the top of the list. Two decades earlier, in 1987, Newell had purchased the Anchor Hocking Glass Corporation, one of the country's oldest glass container manufacturers. Within four months of the acquisition, a team of Newell executives swooped down on an Anchor Hocking plant in Clarksburg, West Virginia, where workers produced novelty glasses like the Star Wars and Camp Snoopy collections handed out by McDonald's during promotional campaigns. As Robert Trent, a personnel supervisor, told us in 1991 about a visit from the corporate owner in the fall of 1987:

> We were really excited about some Newell people coming down and looking at our facility, because we thought we were doing very well. They came in about ten in the morning. We saw them come in. They went to the plant manager's office . . . and told him they were closing this facility November 1, 1987. And that was it. They were out of here by ten-

thirty.

With certain exceptions, the corporate takeover targets were profitable. They just were not as profitable as corporate raiders and Wall Street wanted. And they certainly were not profitable enough to pay bloated salaries to layers of executives.

In October 2011—three years after Newell closed the Vise-Grip plant—the hurt and the sense of loss in DeWitt were still palpable. Townspeople spoke longingly of the plant, of the positive influence it had on the town and their lives, and of the loss they continued to feel. DeWitt had lost its only grocery store. The longtime weekly newspaper had folded. Other businesses were pinched. A ready source of work for the town's young people—either as summer jobs or as careers for those who elected not to pursue higher education—was gone.

Former plant workers have tried to move on. Some went back to school for training to become home health aides or office workers. Some took jobs in other towns. Others retired early. Randy Badman has had three jobs in manufacturing since Vise-Grip and lost two of them to outsourcing. By late 2011, he was working as a foreman at a Nebraska foundry ninety miles from his home in DeWitt, where he and his wife Marge still live and where Randy serves as the town's mayor. He drives 180 miles round-trip four days a week to his new job. It's a grind, but he likes the work and the job provides health insurance for

himself and his wife.

In most cases, former Vise-Grip workers who have been able to find work are earning less, and they've learned to live on less. They've tried to put the past behind them, but it comes rushing back when they come upon tool displays at a Home Depot or Lowe's and see the familiar yellow-and-blue packaging touting Vise-Grips as: "The Original. Since 1924."

Of course they aren't the original. The locking pliers are now made in a factory in the heavily industrialized city of Shenzhen, north of Hong Kong. Although they're produced under tight security in a limited-access industrial park, a former worker from DeWitt obtained an inside view of the Chinese operation after Newell hired him to try to straighten out production problems there.

A twenty-year veteran of DeWitt, Bruce McDougall arrived in China not long after the Nebraska plant closed to find the new Shenzhen operation in chaos. Components were arriving from multiple suppliers and were hard to track. There was no quality control on the production line. Newly manufactured tools broke or wouldn't work, he said. From the outside, the factory didn't look much different from plants in the States, but inside was another story. To McDougall, the place was like a time capsule, a throwback to earlier times when Vise-Grip's DeWitt plant relied on manual labor to make the tools.

"It looked more like Vise-Grip in 1950, when everything was made by hand," McDougall said,

rather than like the highly automated plant that Newell had shut down in 2008 to be more "competitive." He said Newell kept throwing more and more bodies into the mix to increase production. But even with five times the workforce of DeWitt, McDougall said, production still faltered. "We were turning out fifty thousand tools a day at the end in DeWitt," he said. "Their best day in China was fifteen thousand with five times the number of people."

There were other contrasts too. In DeWitt, many Vise-Grip employees lived in neat, well-kept houses on quiet lanes not far from the plant, but in China Newell's workers were packed into dormitory-like quarters adjacent to the factory. Living conditions mirrored the chaos of the plant floor. As many as twelve workers were stuffed into cramped rooms for sleeping. "The night shift guy would go in and work twelve hours," McDougall said. "Then he'd go back to the dorm and wake up the day shift guy, who'd go in for twelve hours." McDougall spent three months in China and couldn't wait to leave. "The place was off the wall," he said. Even with the cheap labor, McDougall said it was costing Newell more to make the Vise-Grip in China when he was there than it had cost in DeWitt.

This was the height of economic insanity. A once-pathbreaking American industrial innovator, whose manufacturing processes had been successfully modernized by a company that was the anchor employer for an entire community, was sold not because

greater economic efficiencies could be achieved elsewhere, let alone because quality or distribution could be improved. It was picked off by a rapacious corporation and dumped haphazardly thousands of miles away. A case of a short-term gain for a corporation, but at the expense of a sustainable economic future for a community.

The loss of the Vise-Grip plant was a betrayal of the people of DeWitt. The village clerk, Linda Schuerman, whose husband worked at the plant for decades, is deeply upset over Washington's indifference to working people and the impact it is having on communities such as DeWitt:

> I'm not a political person, but something's wrong with Washington, D.C. They are to blame. They should have kept the companies here. We are nosing our way into all these countries that don't want us and can't stand us when we should be helping our own people. All the people out here want to do is make a living and support their families.

Coming into DeWitt, visitors pass the massive, four-columned brick entry sign on Highway 103 that has welcomed visitors to the town for years: HOME OF THE VISE-GRIP TOOL. The town's website also pays tribute to the enterprise that brought prosperity and economic well-being to more than three generations, but it has had to adjust to the times. On the website, DeWitt is no longer the "home" of the Vise-

Grip Tool, but its "birthplace." Like so many chapters in the story of American manufacturing, this one is now history.

THE BIRTH OF APPLE

Defenders of free trade and the ruthless corporate behavior that often accompanies it contend that the fate of companies such as Vise-Grip, while sad for those who lose their jobs, is merely part of a natural process of the American economy renewing itself. The nation, they say, is constantly being reinvented as old industries and companies give way to new ones. Along the way, old jobs are eliminated or offshored. It's easy to assume that perhaps older companies such as Vise-Grip did not keep up with the times (though it did) or that its invention was no longer relevant (the Vise-Grip remains a hugely popular tool). But the story must be different for twenty-first-century innovators. Surely current innovations are valued more highly and treated more carefully so that their benefits can be shared by the communities that supported their creation? If only that were true. Look no further than the story of an iconic American company, Apple Computer.

The story has been told many times of how Steve Jobs and Steve Wozniak, tinkering with electronic components in the Jobses' family garage, built the first Apple computer in 1976 and launched the per-

sonal computer industry.

Like William Petersen of Vise-Grip a half-century earlier, Jobs and Wozniak had an idea, and their curiosity and ingenuity enabled them to create a new product from it. And like Vise-Grip, Apple was soon manufacturing its products for sale, first from a building south of San Francisco and then in an assembly plant in Fremont, California, on the other side of the Bay. Soon additional plants in Elk Grove, California, near Sacramento, and Fountain, Colorado, near Colorado Springs, would be turning out Apple computers. For the two new plants, the future looked especially bright.

Apple's Elk Grove plant, opened in 1992, became the centerpiece of Sacramento's campaign to attract high-tech companies. Other computer makers soon followed. By the mid-1990s, the Sacramento area was considered the computer manufacturing capital of the United States. Apple's Elk Grove plant, which manufactured circuit boards and desktop computers, operated seven days a week and employed 1,500 persons.

About the same time, the Apple plant in Fountain went into production and soon became the company's largest manufacturing facility, turning out 1 million PowerBook and desktop computers a year. It was a state-of-the-art facility that helped the Colorado Springs area attract other high-tech companies. The emergence of this new industry was a relief to the area, which had long been dependent on the ups and downs of defense contracts from Washington.

Apple seemed to be following the classic path of industrial development that Vise-Grip and scores of other domestic manufacturers had taken for years. A creative entrepreneur invents a product, builds plants to make it, and markets it to consumers, all the while employing ever more people to build the product. This is win-win innovation.

But Apple changed the rules, and the story diverged from the pattern that U.S. manufacturers had followed for decades. Rather than continue to open new plants in other U.S. cities and expand existing operations, the company, following the examples of other computer and electronics makers, moved production offshore, largely to China. Just twelve years after it opened, the Elk Grove plant was closed, "cutting out the core of what used to be one of the brightest stars in the region's high-tech constellation," as the *Sacramento Bee* put it. Apple sold the Fountain plant to an electronics firm in 1996. The new owners continued to manufacture Apple computers under contract for three years until production there also moved abroad. Today the 250,000-square-foot building sits vacant, a painful reminder of what was once a thriving tech industry.

As recently as 2000, Colorado Springs was riding a high-tech job boom. But since then, with the closure of the former Apple plant and other facilities, the area has lost more than 40 percent of its manufacturing and information technology jobs. More than 15,000 jobs—paying from $55,000 to $80,000 plus

benefits—simply vanished, according to local economic development officials, sucking an estimated $500 million out of the local economy. In their place, jobs in call centers for insurance, finance, and cell phones were created—jobs that paid about half of what the IT jobs paid, according to local officials.

Bill Stamp was one of Apple's first employees at Fountain. He was twenty-six years old when he joined the company in 1984 at its Fremont assembly plant, recording and keeping track of the myriad parts that went into each personal computer, from hard drives to screws. When the company offered him an opportunity to get in on the ground floor at its new assembly plant in Colorado, he jumped at the chance. His wife-to-be, Christy, also an Apple employee, landed a job at Fountain as well, and later he moved up to a supervisory position in shipping. Gregarious and down to earth, Stamp is the first to tell you he was never a computer geek. He was a "materials guy" whose job was to feed the production line: "My job was to get it to the line and make sure it was a quality product ready for the line to use."

Apple instilled in him and his coworkers a quality control ethic that made them want to turn out the best possible product. "There was such a camaraderie," he said. "When we got off work, all we could talk about was Apple, Apple, Apple. We've got to do this or that. And we had the freedom, a process, to bring that up, and these things would

then often come about. It was phenomenal, one big family." It was an exciting time. Stamp said the folks in the factory thought of themselves as responsible for helping to build the company. They were appreciated and well compensated, and they basked in the glow of working for Apple.

Stamp said that he and Christy moved into a comfortable bilevel house set on five acres near the Black Forest, an area of abundant ponderosa pines and natural beauty north of Colorado Springs. "We were living large," he said. "We thought it would go on forever."

But when earnings fell in 1996 and the moneymen on Wall Street decided Apple was not living up to their expectations, the company was forced to unload assets to raise cash. The Fountain plant was sold, just four years after it had opened. Fountain was profitable and well run, but Wall Street's relentless focus on short-term earnings demanded results. An Alabama-based electronics vendor and outsourcing specialist, SCI Systems Inc., bought Fountain for $75 million with an agreement to continue manufacturing Apple computers on-site for three years.

The plant's ownership wasn't the only thing that changed. Stamp recalled that the new managers were "arrogant as hell," dismissive of Apple veterans, and uninterested in feedback from employees. "What a culture shock that was," he said. After having worked in a collaborative environment that encouraged ideas from the ground up, the essence of a continuously

innovative culture, all he ever heard from the Alabama imports were relentless orders to "git 'er done." When the contract to make Macs expired in 1998, Apple didn't renew, and the manufacturing shifted offshore.

Discouraged about Fountain's future, Stamp left in 2001. He tried his hand in real estate in Colorado and held a series of supervisory jobs at less pay in distribution and warehousing, first in Colorado and then in California. In 2008, when his job was shipped to Singapore, he hit a stone wall. Always before, he had been able at least to secure an interview that often led to a job—if only for a while. Now he would send out résumés listing his lengthy experience and wasn't even getting a call.

As the months ticked by, Stamp and his wife drew down their savings and tapped into retirement accounts to fund the fruitless quest for work and to try to hold on to their home. As so often happens, in the end they lost the home. For family reasons, they moved back to California in 2003 and settled in Milpitas, near San Jose, where they rented a two-bedroom apartment. In the summer of 2011—at the age of fifty-three, after he'd been out of work for three years—Stamp found a temporary job working as an inventory control analyst for a company in the Bay Area. It was a step down from supervising, and the job did not come with benefits, but at least he was working again.

Stamp remembers reading an article years ago,

when he was still with Apple, predicting that the average worker in the future would undergo four different career changes and hold as many as ten different jobs. And he had thought: *Not me. I'm staying right here.* Little did he know that would never be an option.

That's because Congress, which writes the rules of employment, and Wall Street, which decides what rules it will permit, had other plans. The jobs that provided a good living for Stamp and thousands of other production workers in Fountain and Elk Grove are now in China. Almost every Apple product—Macs, iPods, iPhones, iPads—is made in China. Unlike in the past when companies manufactured in the United States for decades, Apple shipped its jobs offshore in less than a generation. So much for the benefits of American innovation to America.

Apple's move to China came about quietly and was little noticed at the time because of the way the company went about creating its offshore presence. Rather than build plants that proudly displayed the Apple name, as it did in California and Colorado, the company turned to firms that partnered with the Chinese to establish Apple plants in mainland China that bore the name of their Chinese contractor even though inside they were making Apple products. This convenient buffering arrangement insulated Apple from oversight of its offshore workplaces.

Apple production workers in Fountain and Elk Grove bought homes, sent their kids to school,

shopped locally, saved for their retirement, and, briefly, lived the American dream. That dream, or anything like it, has not been extended to their Chinese replacements.

In 2011, in a story for the Investigative Reporting Workshop, we told of how Apple's good-paying manufacturing jobs in the United States had been shifted overseas "to laborers in sweatshops in China." We contrasted the middle-class lifestyle and working conditions that Bill Stamp and other Apple production workers had enjoyed in the States with the grueling working and living conditions of workers making Apple products in China.

Prior to our story, reports had periodically surfaced in China about the exploitive and demeaning conditions that suppliers had imposed on these workers at various compounds where Apple products were made. Some of this reporting work was by a courageous Hong Kong–based human rights group called Students and Scholars Against Corporate Misbehavior (SACOM). Then, early in 2012, about two months after our investigation was published, the story went viral when the *New York Times* published lengthy accounts about worker abuse and harsh conditions.

The heart of Apple's production in China is near Shenzhen, a throbbing megalopolis of 10 million, less than an hour north of Hong Kong. Just outside the city is a massive, fortresslike compound surrounded by walls and protected by tight security where guards

stop each vehicle at the entrance and check the identities of occupants by using fingerprint-recognition scanners.

Within the walled city are numerous factories, dormitories, support businesses, and an on-site television network, all humming around the clock. This is the Longhua Science and Technology Park, one of the densest concentrations of high-tech manufacturing in the world. Owned by Taiwan-based Foxconn Technology Group, the largest manufacturer of electronics and computer components in the world, Longhua is home to as many as 300,000 workers.

The workers labor in enormous factories, row after row of them bent over workstations that seem to stretch endlessly into the distance. They assemble iPods, iPhones, iPads, and products for other electronics makers. Occasionally, photos surface showing workers, mostly young women, wearing spiffy white coats and caps, going about their work in what appear to be pleasant, well-lit surroundings, just as workers once did at Elk Grove and Fountain.

But that's the only similarity with Apple's former plants in the United States.

iSLAVES

Workers at Longhua and other Foxconn plants in China usually work from ten to twelve hours a day, sometimes for seven days straight without overtime

pay. They're not allowed to speak to each other on the job or to leave their workstations—not even to go to the bathroom—without permission from guards. Some of them perform repetitive tasks for up to ten hours at a time without a break. Supervisors berate workers with foul language and warn that if they fall behind on production they will be replaced. Some have reportedly been beaten for mistakes they allegedly made on the assembly line. For this, they earn little more than a dollar an hour at most.

SACOM, the Hong Kong human rights group, which has documented these practices in numerous reports, described working conditions at one Foxconn plant making iPhones: "Workers frequently endure excessive and forced overtime in order to gain a higher wage. If they cannot reach the production target, they have to skip dinner or work on unpaid overtime shifts." SACOM calls Foxconn's Apple workers "iSlaves."

Most young workers live on-site in cramped high-rise dormitories near the factories, where as many as a dozen workers squeeze into small rooms with three tiers of bunk beds. Most of them are peasants in their late teens or early twenties who have been lured to the city in hopes of earning money for themselves and their families back home, only to find themselves yoked to brutal production schedules that can become unbearable.

Upwards of two dozen workers at Apple plants in China have become so desperate that they have taken

their own lives, often by jumping to their death from their dormitories. The deaths were so common for a time that Chinese bloggers began referring to the Shenzhen plant as the "Foxconn Suicide Express." In its investigation of conditions at Longhua and other plants making Apple products, SACOM concluded that many of those who committed suicide were exhausted, overworked, verbally and physically abused by supervisors, or publicly humiliated when they failed to meet their production quotas. SACOM reports tell the story of some of these young victims:

- Hou, a nineteen-year-old woman from Hunan province, hanged herself in the toilet of her dorm room on June 18, 2007, shortly after she had assured her parents that she would soon be coming home.
- Sun, a twenty-five-year-old college graduate from Yunnan province, jumped to his death from his twelfth-floor room on July 16, 2009, after he was allegedly blamed for losing a prototype for a new iPhone. According to SACOM, Sun was detained by security officers, placed in "solitary confinement," subjected to "psychological pressures," and allegedly beaten. In a final chat with friends shortly before he killed himself, he described the relief he felt in planning to take his own life: "Thinking that I won't be bullied tomorrow, won't have to be the scapegoat, I feel much better."

- After Feng, a twenty-three-year-old college graduate, jumped to his death from his fourteenth-floor room on January 16, 2009, police found a suicide note: "Too much work pressure; unstable emotions."
- Ma, a nineteen-year-old native of Henan province, was found dead near a stairway of his dormitory on January 23, 2010. An autopsy concluded that he had fallen to his death. His sisters later insisted that their brother died from a beating he had suffered after he accidentally damaged equipment at work.

After a rash of suicides at the Foxconn plant in early 2010, Foxconn took action: it strung nets around the dorms to catch any workers who might try to kill themselves by jumping. It also sealed balcony doors and barred access to roofs. Workers were reportedly urged to sign a statement promising not to kill themselves and to "treasure their lives." Apple said later in a public report on "supplier responsibility" issued to shareholders that it was "disturbed and deeply saddened to learn that factory workers were taking their own lives" and pledged to take steps "to help prevent further tragedies." The company launched a search "for the most knowledgeable suicide prevention specialists" and commissioned a study so as to better "support workers' mental health in the future." Apple also commended its contractor Foxconn for taking "quick action," including "attach-

ing large nets to the factory buildings to prevent impulsive suicides."

Once the nets were installed, the number of suicides dropped, but working conditions at Longhua and other Foxconn plants have changed little, if at all, according to SACOM. Although Apple pledged to work with Foxconn to improve conditions, in SACOM's view the company failed to follow through and insist on reforms, and so many of the conditions that prompted the suicides still exist. Similar conditions apparently prevail at other Foxconn plants that make products for other American manufacturers. About three hundred workers who assemble Microsoft XBoxes in central China threatened mass suicide from the roof of their factory in early 2012 over wage and working conditions, but were talked down by the town's mayor.

Following a new wave of revelations and criticism in the press in 2012 about working conditions in the factories of its Chinese suppliers, Apple CEO Tim Cook traveled to China to inspect plants where Apple products are made. An internal audit released afterward confirmed many of the charges of harsh working conditions where iPhones and iPads are made. Foxconn pledged to raise wages and improve conditions. Only time will tell if anything will change; in the past, similar pledges have been made to make life better for the workers.

After the suicides at Longhua, Foxconn and Apple stepped up plans to move more iPhone and iPad pro-

duction inland to cities in central and western China, where there is even less oversight of living and working conditions. One major center for iPad production is now Chengdu in southwest China, nearly one thousand miles from Hong Kong. In its first year of production, an explosion, apparently caused when aluminum dust was ignited, rocked the plant, killing four workers and injuring eighteen others. SACOM investigators interviewed workers at Chengdu and found that many of the same conditions afflicting Apple workers at the plants on China's east coast were present at Chengdu: workers labored for hours at a time applying chemicals, sealants, and parts to iPads, assembling objects they knew they would never have the money to buy.

One young worker lamented that he couldn't even dream of owning an iPad because it would "cost two months' salary"—a far cry from the working conditions of the young Apple in its U.S. factories. Bill Stamp remembers a day early in his career when Apple, having asked workers to come in on a Saturday, gave everyone a new Macintosh as a bonus for a job well done. Everyone felt rewarded, properly included in the success of the ever-innovative Apple. But would innovators of the future allow themselves to dream of innovation if they thought it would inexorably lead to slavelike working conditions and suicides? Surely that isn't the end of the story of American innovation of the future?

To Stamp, it's amazing to realize how quickly it all

changed—how the door to so much opportunity and a secure future suddenly slammed shut when Apple began to subcontract the making of its basic products and then shipped all the work to other countries.

Stamp sees his own future clearly. Like tens of millions of other Americans, he realizes that he will never be able to retire: "I figure I'll drop over dead somewhere because I'll still be working," he says. If, that is, he can find work.

As for Apple, moving jobs abroad couldn't have worked out better. The corporation sometimes has more cash in its bank accounts than the U.S. Treasury. In January 2012, the company became the most valuable corporation on the planet—its stock was worth $422 billion, a sum that exceeded even the worth of Exxon Mobil Corporation, the world's largest international oil and gas company. For the Apple executives who sent the company's jobs offshore, the results have been especially rewarding. Tim Cook, who took over as Apple's CEO when Steve Jobs resigned shortly before his death, was handed a fat new compensation package in 2011 valued at nearly $380 million. That roughly equaled the pay of more than five thousand factory workers in America who still had jobs.