

ROCHESTER HISTORY

Edited by Ruth Rosenberg-Naparsteck
City Historian

Vol. LXVI

Spring 2004

No. 2

Arsenal of Freedom
Part Two
Rochester War Plant Workers During
World War II

By Bob Marcotte





Viola Sackett inspected the Folmer Graflex camera that took the first photograph of the D-Day invasion. It was acquired by the Rochester Community Savings Bank after they purchased \$8,500,000 in War Bonds.

Cover: Detail of advertisement in the Democrat and Chronicle May 8, 1944 (see full advertisement on back cover)

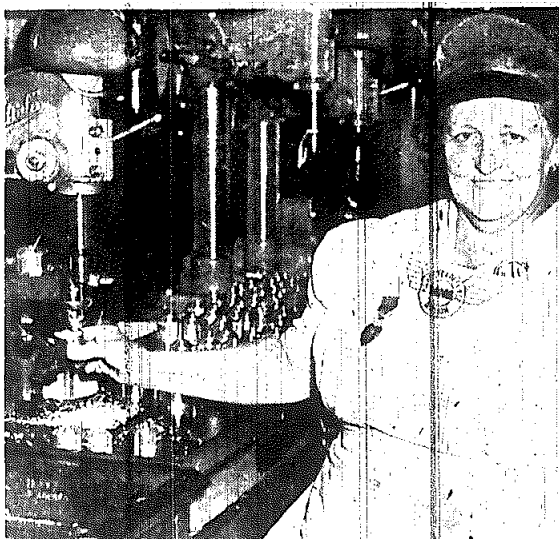
ROCHESTER HISTORY, published quarterly by Rochester Public Library. Address correspondence to City Historian, Rochester Public Library, 115 South Avenue, Rochester, New York, 14604.

www.libraryweb.org

Subscription to the quarterly Rochester History are \$8.00 per year by mail. Foreign subscriptions \$12.00 per year, \$4.00 per copy back issue.

IMAGEPRINTER-3

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Mrs. Charles Bruno runs a drill press at Commercial Controls Corporation. She had four sons in the military. She worked six days a week while keeping house for her husband and other children.

Rochester War Plant Workers During World War II

Amid the rattle of chain and metal, red-hot outer shell casings for 105mm artillery shells paraded toward Louis Cianca. They nestled in the heavy chain link that formed a 10-foot-wide conveyor belt. The shells all pointed in the same direction.

“It was like being in an oven,” Cianca recalls. He was 17. It was the summer of 1944, the summer before his junior year at Aquinas Institute, the summer before he was drafted into the Army.

He worked in General Railway Signal Co.’s treatment plant on Lyell Avenue, clad in leather apron, heavy leather gloves, high shoes, protective hat and goggles. He had to gulp water to keep from dehydrating. “Believe it or not,” he added, “there was even a dispenser there for salt pills.”

“It was very, very hot.”

The red-hot shells passed through a bath of oil to begin tempering. When they came out, blowers cooled them enough so workers could lift them with heavy gloves onto another conveyor belt, then put them on a press to be tested. Cianca operated the press.

The work was tedious, loud and dangerous. “If you weren’t careful a shell could drop on your feet, or you might touch a part of the line where the shells were too hot,” Cianca recalled. “There were plenty of burns” when chips of hot metal flew threw the air, or dropped shells rolled against shins.

“I was hoping I would never have to do this again.”

The Soldiers of Production

This is the kind of scene many of us conjure up when we imagine the home front “soldiers of production” during World War II. Muscular workmen with hard hats toiling at blast furnaces. Rosie the Riveters standing on the decks of half-finished battleships and aircraft carriers. Welders, silhouetted in a shower of sparks, putting the finishing touches on gleaming, nearly assembled bombers.

But there were other workers, in jobs that were less glamorous or photogenic perhaps, but just as important to the war effort. There was Evelyn Pengelly, for example, a secretary in stores accounting at Bausch & Lomb Optical Co. The Rochester company was a principal manufacturer of the high-grade glass needed for aerial reconnaissance cameras, fire control equipment, bomb sights, binoculars and other optical equipment needed by the Army, Navy and Army air forces. Each new batch of glass had to be numbered, and a report filed describing the classification, quantity and quality of the glass. Evelyn was responsible for tracking these reports and making sure there were no discrepancies. If there were, she would cross from her office on the east side of the street to a building on the west side, then take an elevator down five floors to discuss the reports with Henry Martens, the supervisor of glass manufacturing.

Considering that Bausch & Lomb manufactured 4,000,000 pounds of glass between Pearl Harbor and August 1944, this was not to be taken lightly!

No, Evelyn does not recall any great drama associated with her work during the war, nothing that would startle anyone reading about it today. “Every day you go to work, and every day you do your job.” But she definitely felt she was contributing to the war effort.

So was Clarence Barg, who spent the war as a draftsman at Gleason Works, toiling five and half days a week under the incandescent drop lights on the second floor, helping design the heavy machinery that made the gears that were vital to operating tanks, ships and planes.

So was Viola Sackett, a divorced mom with two small children, who inspected the camera at The Folmer-Graflex Corp. that would later be used to take the first photo of the D-Day invasion.

And so was Ernest Imperial. In the wee hours of the morning, when most people slept, Imperial stared at fist-sized compasses suspended from a pipe at The Ritter Company, Inc. They would end up in tanks and warplanes, but first they had to be flushed out with a fluid that smelled like kerosene.

Ernest’s job was to take the compasses down, give them a spin, and see if any loose chips – perhaps left over from the drilling and assembly – floated into view. If they did, the compasses went back up on the pipe, and continued to be flushed until the fluid remained clear when the compasses were spun.

“This is what I did all night long, fighting sleep, from 11:30 p.m. until 7 in the morning,” Ernest said.

It wasn’t the shift he would have preferred. It meant less time with his wife and child. It wasn’t the most enjoyable work in the world either. However, Ernest accepted it. “There’s a war going on. Someone has to do it.”

At least the exhaust fans helped draw away those kerosene-like odors. After a year of this graveyard shift, he was inducted into the Army as a medic for two years until the war ended.

The courage of American servicemen who stormed ashore at Normandy and Tarawa, who braved flak in the skies over German cities, endured the cold and combat of the Ardennes Forest and fought yard by yard over the sands of Iwo Jima have been amply chronicled. And deservedly so. Less heralded are the millions of men and women on the home front – including about 120,000 in Monroe County’s war plants – who toiled long hours to churn out

weapons and supplies. And yet, “the man who makes a gun is just as important as the man who shoots it,” one war veteran noted in a visit to the war plants here in 1942. “And the man who runs a lathe has just as much responsibility in preserving our democratic privileges as the man who steers a tank across North Africa.”¹

In the previous issue of *Rochester History*, we looked at Rochester’s myriad war products and a proud record that enabled 38 local companies to earn Army-Navy E Awards for production excellence. This issue takes a closer look at some of the people who made that possible.

Prewar: “A Great Big Family”

In 1939, 19-year-old Bob Kadar and one of his buddies were walking along Lexington Avenue when they neared a huge plant that had just been erected. They decided to go inside and apply for a job. It was the new General Motors Rochester Products Division plant that, within two years, would convert entirely to wartime production.

Kadar, a Minnesota native, grew up in the 19th Ward and graduated from West High School. He was interviewed by B.O. Snyder, the plant personnel manager, a man of rugged features who sat with his feet propped up at his desk, chewing tobacco. “Can you operate a drill press,” Snyder asked the young applicant, who stared back at him uncomprehending. “Sure you can,” Snyder answered for him.

Kadar was hired – and considered himself very fortunate. “Jobs were not easy to get in 1939. The depression had tailed off, but it still wasn’t easy for a young person to get a job, especially in a company like that. ... I had never even heard of General Motors before this.”

Rochester Products built automotive parts for General Motors. Kadar worked on a relatively small assembly line of 20 to 25 people who made light switches for dashboards, next to a department that made horns. “Anyone who worked close to that department could always hear horns being tested.”

Kadar has fond memories of those months before the war.

There was a great spirit of cooperation between departments. “If you finished your quota for the day, you didn’t just stand around; you went to the next station to help that person. We also did our own inspection and packing.”

“It was like working in a great big family,” Kadar recalls. “People were so nice to each other. All kinds of little groups did things together” – tending Victory Gardens, going out for a drink after work, and so forth.

Rochester Products began switching to war production even before Pearl Harbor. America’s entry into the war accelerated the process. The company converted entirely to making precision electrical generators, alternators, and other parts for warplanes and tanks. That required bringing in new equipment, Kadar said, or narrowing the tolerances on existing equipment to the more demanding specifications of the military.

Security was beefed up. Employees had to pass through a guardhouse, wearing identification badges that showed their pictures and a color-coded band around it designating their department. “If you worked in one corner of the plant on a generator, they didn’t encourage you leaving your department,” Kadar said.

Twelve-hour shifts were not unusual until the plant went to three shifts a day. When it did, there was an influx of new workers.

War Changes Everything

The same thing was happening all across the face of Rochester industry. As early as 1939, Gleason Works supplied gear-cutting machines to England and France for their war factories. After America’s entry into the war, production went into high gear. “All through the war we worked six days a week, three shifts in the shop,” Barg recalled.

He was a draftsman in Machine Design, working 7:30 a.m. to 5:30 p.m. workdays and a half-day on Saturdays. “It was a real difficult time,” Barg recalls. “The long hours after a while took their toll. Working nine hours a day is pretty tough for a full week, and then half a day on Saturdays. That left only a day and half to ourselves. After about the first six months it was quite noticeable

that production was affected. People slowed down. There was not much you could do about it.”

Gerard “Jerry” Schmitt remembers testing a new generator at Rochester Products Division one night until 1 a.m., then reporting back to work at 8 the same morning. And that wasn’t the only time he had to stay late to get the job done. But he took it in stride.

“If you had any loyalty to the cause you wanted to do whatever you could to help the end result. If you were not fighting on the front lines, at least you should be working at home to make sure the people who were out there had the necessary equipment.”

“If you had a deadline to meet, you stayed until the product was finished.”

If anything, the all-out push to produce drew the workers closer. Everyone was in it together; there was a strong sense that the country was in peril, that everybody had to pitch in. “We were all caught up in the war spirit,” recalled Bill Davis, an industrial engineer at Eastman Kodak. “There was a feeling we’ve got to fight these wicked guys who want to dominate the world.” Evelyn Pengelly and the other employees in her office at Bausch & Lomb put a world map up on the wall. When the newspapers reported that Iwo Jima had been taken, or that the Allies had entered Paris or crossed a certain river, the workers put a thumbtack on the map to mark the spot. Barg said Gleason workers took it personally when they learned that gear-making machines sent overseas to England or Sweden had been lost when ships were sunk. “At one time we had over a hundred machines that never reached their destinations. Nobody seems to know that Gleason was the only plant in the world that could produce certain of these machines.”

Marion Schwab Lynch, whose brother and fiancé were both in the Army, worked with other women at Kodak typing up war bonds. The desks were arranged back to back. So it was easy for the women to share the latest news about their husbands, boyfriends or family members in the service. It made a nice break from all the typing. “If you didn’t you could lose your mind.” Esther Arbore, working in the mailroom at Taylor Instrument Company, remembers how hard it hit everyone when the husband of one of her coworkers was taken prisoner. “That took a lot out of us.” Fortunately, the husband survived. Occasionally Marion would bring in

unused sugar ration stamps for the other women “Everybody worked together. Even though you got discouraged, there was always someone there to help you.” Each night she caught a bus home. The passengers, aware that her fiancé was fighting overseas, would ask Marion “what do you hear from Larry?” Many of the men on the bus were World War I veterans, Marion recalls. As the war went on, fewer and fewer younger men were left.

This drawing closer occurred outside the workplace as well. Gas rationing and bans on pleasure driving limited opportunities to travel. Barg and his wife and daughter managed to make a few trips to their cottage on Conesus Lake “by driving the back roads and buying extra stamps from people who didn’t need them.” But mostly people stayed close to home. In Barg’s Irondequoit neighborhood there were eight or nine other families with children. “Every weekend we had a little neighborhood picnic.”

Marion, who looked after her mother at home, didn’t have a car, so grocery shopping and other errands were mostly done by bus. “We had great neighbors. We’d have picnics and I’d do babysitting.” She started a Victory Garden next to some old stones from a barn that once stood on the property. One day when she went to weed the garden, snakes were looking out at her from the rocks.

That was the end of Marion’s gardening! She let a neighbor take over the garden, and he reciprocated by sharing the tomatoes and other vegetables he grew.

One of Barg’s neighbors was a supervisor for the proximity fuse project at Kodak – such top-secret work that the neighbor carried a sidearm with him at all times for security. Midway through the war he asked Barg to work for him at Kodak, but it was not allowed. So severe were manpower shortages that essential war workers were literally frozen in their jobs² to prevent one company from pirating skilled workers from another.

At least Barg was spared from the draft because of a physical disability and his classification as a critical war worker. Quite frankly, Barg was relieved. Who wouldn’t be, with a wife and small daughter, and a second daughter on the way?

Schmitt was classified 1A for military service three times, but was deferred each time because of his war work. He had “mixed emotions” about that. “You felt an obligation to be a soldier, and do

the fighting, but you also had an obligation to provide the material to make the war a success. I said some prayers and tried to set my course by what the good Lord wanted me to be, and left it up to him.”

For thousands of other Rochester employees, the time soon came to stop making the weapons of war and start using them.

“You Had To Sit There and Take It”

Not long after Pearl Harbor, during the hectic first months of the war in 1942, Harry Kerr would get a call to go to the personnel office in Building 5 at Kodak Park.

A military agent – sometimes in uniform, sometimes not – would be waiting there with a package. He would hand it to Kerr, who would sign for it and then head back to the Kodak color-processing laboratory where he worked.

The package contained one or more rolls of Kodacolor film, a brand new product. But these were no ordinary shots of family picnics or flower gardens or a favorite pet. They were from the military.

Kerr was not the only employee authorized to process military film, but once a roll was turned over to him, he was the only one who was allowed to handle it, from darkroom to processing.

“When it came to the point that the prints were coming off the processing machine, other people would have to leave the room for a couple of minutes,” Kerr recalled, “so that I was the only one who saw them.”

Kerr never knew for sure what the photographs depicted, because there was no printed description with them. But he could see naval vessels, ground troops, and occasionally landing craft. And lots of pictures of “brass” – military officers.

By 1942, Kerr and a friend had noticed all the publicity about Chenault’s Flying Tigers and the Army Air Corps. “It was the coming thing,” he recalled. Kerr enlisted as an aviation cadet.

Kadar, at Rochester Products Division, was about to make the same decision. He had lost that feeling of working for a great big family. “It was hectic. Just about everything went to three shifts a day. Prior to that I knew just about everybody I could see from

where I was sitting. Things got a little more distant.” Then, one day on lunch break, Kadar and two other employees went downtown to enlist in the Marines. It was the noon hour, and the Marine recruiting office was closed. But as they stood outside, an Army Air Corps recruiter came by and suggested they talk to him.

Nine months after Pearl Harbor, Kadar also signed up as an aviation cadet.

He ended up as a tail and waist gunner on a B-24 bomber stationed in Italy, flying 35 missions against the Ploesti oil fields, Vienna, Linz and other targets. Kerr also flew in B-24s based in Italy, as a radio operator/nose turret gunner. He, too, flew 35 missions against the Ploesti oil fields and other targets, and was credited with 46, so dangerous were some of them. During a mission against Ploesti on July 28, 1944, Kerr’s crew had to fly a replacement “ship” when their own bomber was laid up. They were hit by flak and began to lose fuel. Given the option of ditching in the Adriatic Sea or trying to reach land, the crew elected to keep flying. When the last two engines quit, they managed to do a belly landing in a field near Manfredonia. The plane was wrecked, but the crew members survived.

The hardest part of flying bombers, both men said, was having to maintain formation no matter how heavy the flak or enemy fighter activity. “You had to sit there and take it,” Kerr said. The danger of breaking formation was brought home vividly to Lt. Clifford Foss. The Rochester Products machine operator enlisted in 1943, and was piloting a B-17 Flying Fortress over Germany when it collided with another bomber that was trying to avoid flak. “The plexi-glass nose [of Foss’ plane] splintered and went flying in all directions. Instruments were shattered, one propeller had more than a foot chewed off each of three blades and the ball turret was whipped completely over, imprisoning the gunner and leaving him hanging upside down with his oxygen supply cut off.”

Foss managed to drop to a lower altitude so the trapped gunner could breathe, turned the controls over to the co-pilot, pulled the gunner to safety and, with the help of his co-pilot, navigator and radio operator, made a smooth landing in England.³

Sgt. Roger Bryan, who left Delco Appliance to become a Flying Fortress radio gunner, came home in 1945 with harrowing tales of

the downing of his bomber near Bremen and the stoning and beating of the captured airmen by German civilians. He also told of a 14-year-old member of the Hitler Youth who stepped out of his house in a town just occupied by the Allies. In perfect English the youth announced, "Here, Tommy, have a lollipop," and tossed a grenade that killed four soldiers. The 14-year-old died in a hail of bullets.⁴

A more pleasant experience awaited Corp. Harold "Jiggs" Herr, who left Rochester Products to join the Marines. He was sent to the Pacific and ended up maintaining the F4U Corsair flown by fighter ace and Medal of Honor winner Lt. Kenneth Walsh. "While inspecting the plane in the Guadalcanal area one day, he gave the generator the once over and discovered it was one he himself had handled while at work in the Rochester plant."⁵

Employment Doors Open – For Some

Back in Rochester, a bus would stop each day at the entrance to Kodak Park. A seeing eye dog named Imp would lead his master through the gates and hallways of the complex. Francis J. Affleck "ran in" gear assemblies for Flying Fortress gun sight mounts. Affleck's impaired vision was not considered a hindrance. In fact, his "highly developed sense of touch" proved an asset in making sure the small gear assemblies operated with "great smoothness to eliminate vibration that would affect the gunner's aim." While Affleck⁶ worked, Imp lay in a bed prepared by Affleck's coworkers.

The departure of Kadar, Kerr and thousands of other workers for the armed services created desperate manpower shortages in Rochester area war plants, even as they were being pushed to produce more. All of a sudden, handicapped, minority and women workers were in demand where they would never have been considered before. By July 1943, sixty vision-impaired men and women were employed in Rochester war plants, and in many cases were "able to do better and faster work than their fellow workers who have their sight because of greater concentration and more highly developed touch."⁷

Soldiers returning from the front with disabling wounds also

found a place in Rochester's war plants. Staff Sgt. Charles B. Cameron lost his left arm after shrapnel from Japanese bombs struck him at Hickam Field during the Pearl Harbor attack. Cheering fellow war workers at Rochester Products Division hoisted him to their shoulders when he was awarded the Purple Heart during a "dramatic ceremony" at the plant the following year. Sgt. Nat Valone, paralyzed in one leg after a sniper's bullet hit him in the spine in France, was hospitalized for six months, came back to Rochester and found work at Kodak's Hawk-Eye Works mounting lenses for military cameras. "The best thing it has done for me is to give me confidence," he told the *Democrat and Chronicle*. "You're not human if it doesn't get your goat once in a while when you start thinking you once were as healthy as anybody else, and now people have to watch out for you and baby you, because you're not quite up to par. Believe me, there's nothing like a job, especially a job where you are making essential equipment, to help you shake off that feeling."⁸

As early as May 1942, New York Gov. Herbert Lehman declared it was "morally wrong" for defense industries to arm young Americans of "every race, color and creed" to fight and die in the military, yet deny their parents jobs on the assembly lines. And yet, a year later, a survey of 125 local plants showed a decidedly mixed pattern in the hiring of blacks. Granted, the number employing African-Americans had doubled, from 34 to 68, the chairman of the State War Council's anti-discrimination committee told a forum held by the Rochester branch of the National Association for the Advancement of Colored People. But that clearly left a great many plants where blacks still were not welcomed.⁹

Moreover, even though the number of blacks in local industry rose from 232 in June 1942 to more than 700 at the end of May 1943, only 28 were doing skilled work and 111 semi-skilled work, a U.S. Employment Service official disclosed at the same forum. The rest were doing unskilled labor. During the question and answer session that followed, "a heated discussion developed over whether there is any Rochester industry which would hire Negroes for any job they are qualified to hold."

Carl Kennard, chairman of the local Negro Job Committee, was particularly incensed in a letter to the editor that some Rochester

industrialists would ask permission to employ captured prisoners of war rather than “give these jobs to the good and faithful citizens, the Negroes, who have served in past wars.”¹⁰

Even blacks who did find work supporting the war effort continued to encounter segregation. When two black war plant workers entered a Rochester movie theater with seven white friends in May 1945, the blacks were directed to sit on the left, the whites on the right, despite protestations they all wished to sit together. When the theater manager angrily refused, the moviegoers demanded refunds. “Should this kind of policy be allowed to continue in a democracy?” eight of them asked in a letter to the editor.¹¹

Doing A “Man’s” Job

The pressing ovens in Bausch & Lomb’s glass factory generated 1,400 to 1,700 degrees of heat. To operate them meant wearing goggles and heavy gloves, and staring through a protective glass shield. It was considered strictly a man’s job – until the war.

By August 1944, Diamond Marinelli and nine other women were each working 50 hours a week at the pressing ovens, and doing a “man-sized” job of it, according to the *Democrat and Chronicle*.¹² The job wasn’t hard, it was fascinating, the women insisted. Vivian Freeman, for example, “wore the unhurried, competent look of a woman sticking a fork into a pie in the oven to see if it’s done.”

This wasn’t the only “man’s job” that Rochester area women handled during the war. They welded barges and tankers, loaded freight trains, operated cranes, and did a host of other essential war work.¹³

They included teenagers such as 16-year-old Helen Guck, who left high school to work full-time on assembly lines and in offices. Young wives with husbands in the service, such as Evelyn Pengelly. War widows such as Mrs. Raynard Mosher who dropped off her three children, ages 5, 7, and 8, at the School 28 child care center at 6:30 a.m. each day while she assembled optical instruments for the armed services. Wives of other war plant workers, such as Eleanor Baart, who assembled artillery aiming circles at Kodak while her husband Stanley worked on a Kodak fire-control instrument for the Navy. Divorced mothers such as Viola Sackett, who inspected cam-

eras at Folmer-Graflex while her children stayed with her parents. There were the older moms such as Mrs. Charles Bruno, with four sons in the service, and six more children and two grandchildren at home, who operated a drill press at Commercial Controls Corp. eight hours a day, six days a week, and still found time to bring in baked goods for her coworkers, tend a garden, and sew clothes for herself and her children. In July 1945, three Gold Star mothers who had lost sons in Europe quietly sewed the fourth star to Rochester Products Division E-award banner before returning to their jobs at the plant.¹⁴

They donned overalls and slacks. They quickly learned that high heels, jewelry, loose fitting clothes and flowing hair were a recipe for disaster in a machine shop. That it was best not to carry big pocketbooks to and from a night shift because of the purse snatchers who took advantage of the “great increase in unescorted women on the streets of the city late at night and during the early morning hours.”¹⁵

With so many jobs available, it was even possible to be selective about the work they did. When Esther Arbore left high school to take a job, for example, her first stop was Kodak Park, where she found herself wearing blue overalls, working alongside other young women on an assembly line. She stayed less than a week. “The girls I worked with there were real toughies,” Arbore recalled. “They were strong, tough girls, smoking and singing songs all day while they worked.” It was a pretty wild bunch, she said.

An aunt who worked at Taylor Instrument came to the rescue, arranging for Esther to do office work there.

A Workplace Romance

Al Pistilli was working in one of the printing departments at Taylor Instrument when a shy young girl began bringing mail each day to the row of executive offices down the hall. A co-worker made a 50-cent bet that Al couldn’t get a date with her.

Al won the bet – and much more. He not only took Catherine Dupre on a date, he eventually won her hand. After 57 years of marriage, six children and 18 grandchildren, Catherine still jokes about it. “Surely he could have bet more than that!”



*As part of the nation's War Relocation Program Margie Kawasaki worked...
depended upon many different people to overcome t...*



*...d at Clinton Optical Company in Rochester in late 1944. Local industries
...he manpower shortage. Office of the City Historian.*

The coworker, who has remained a close friend, replies: “Hey, 50 cents was a lot of money in those days!”

The influx of women, especially into previously male-dominated workplaces, inevitably increased the opportunities for couples to come together. “A romance that bloomed amid the heavy machinery at a Rochester war plant will culminate at 11 a.m. today in the marriage of a machinist to a machinist,” one *Democrat and Chronicle* reported on April 8, 1943. The newspaper claimed it was the first time a marriage license had been issued for a woman machinist.

But there were also incidents of harassment, largely unreported, that would not be tolerated today. Taylor Instrument wanted its women employees to wear nylon hosiery, Catherine recalls. During the war, nylons were not only expensive, but hard to come by. Many of the women wore “leg makeup” instead.

One supervisor, an older man, would run his finger up the legs of the women employees to check! “The girls were petrified of him,” Catherine recalled. “We got in and out of his office fast. The best thing was not to get too close to his desk.”

For the most part, however, Catherine was treated well and had no complaints – until Al came home on leave in 1945 so they could get married. When Catherine asked for time off, she was refused. She was told that with so many servicemen coming back and women wanting time off to get married, it was “disrupting the whole plant.”

“I might have stayed if they had let me take a little time off,” Catherine said. Instead, she quit her job, and traveled with Al from one military post to another, taking advantage of the training she received at Taylor Instrument to get jobs until he was discharged from the Army in 1946.

A Debate Over Married Women

In the summer of 1942, women workers in Rochester war plants were paid between \$20 and \$25 a week, according to a survey by the Rochester Bureau of Municipal Research. That was about half the average wage of \$40 to \$45 a week for male workers. Two years later, the average weekly earnings of women pro-

duction workers in Rochester area manufacturing industries were \$32.05 compared to \$54.67 for men. No doubt part of the reason was that many of the women were filling lower paying, less essential, entry-level jobs. But it also appears, in at least some instances, they were simply paid less than men would have been.¹⁶

State “equal pay” legislation, designed to prevent pay-rate discrimination between men and women, went into effect July 1, 1944. A year later, application of the “equal pay for equal work” statute resulted in \$250,000 in back pay for 1,250 workers at Delco Appliance. At war’s end, three women interviewed by the *Democrat and Chronicle* said they were earning \$39 to \$40 a week in war plants, with one them reporting having made as much as \$60 a week when overtime for holidays was included.¹⁷

War production officials begged, bullied and badgered women to work on the assembly lines; insisted they were essential to winning the war. And yet, other voices insisted that women with children had no business doing so, that their first duty was to stay at home and raise their youngsters properly. “We will pay a tremendous price for victory if mothers go into war plants,” warned Leon C. Whitlock, supervising probation officer of Monroe County Children’s Court, in June 1943. Other voices urged communities not to lose sight of the needs of children in the all-out push to win the war. “We emphasize winning the war but what will be the result if victory is ours and we meanwhile fail to shape the future of the children – the leaders of tomorrow?” asked Mary Leeper of the National Association for Childhood Education. She urged communities to squarely face the need for adequate childcare to combat increasing truancy and delinquency.¹⁸

A fascinating exchange of letters to the editor in 1943 help illustrate the sharp division of public opinion on this issue.

“For nearly three months I have been employed in a clerical position in a war industry ... working 47 hours a week,” M.H.O. of Rochester wrote in a letter published in the *Democrat and Chronicle* on Feb. 26. “I have tried vainly to get part time domestic help, who could do part of the laundry. I have been unable to get anyone who would take any responsibility for my youngster after school hours ... or help out with cleaning and preparing the evening meal.

“At 5:30 p.m. I am compelled to do all my shopping for food (and try to get butter and meat), get enough space on a crowded bus so that my purchases are not completely crushed, and get home in time to prepare dinner for the family, two members of which are also war workers and working till 6 p.m.

“My evenings then are not being spent in recreation – bingo, night clubs, beer parlors, as you may well imagine, but in trying to bring some semblance of order and cleanliness into my home ...”

“I took the position, not because of the high wages, but because I believed the position offered me the most expedient way to serve in the war effort.”

To which replied a “Mrs. J. L. E.” and a “C.M. of Albion,” suggesting that instead of chasing the “almighty dollar,” the proper place for married women with children was to stay at home and, as C.M. put it, “look after their welfare and see to it that they don’t run wild as they would have a tendency to do if the mother wasn’t at home. I think any married woman with a family would be serving the country just as much and maybe more so, than she would working in a factory.”¹⁹

To which replied another “Working Mother”: “these persons [Mrs. J.L.E. and C.M.] are not living in a world at war but in the smug era that perished amid the bombs at Pearl Harbor. ... It is an insult to the sacrifices that many thousands of women – mothers – are making by leaving comfortable homes to work in the dirt and smoke and grime of the war industries to imply that they are ‘chasing the almighty dollar.’ They must push their way after a hard day’s work (or night’s), into buses jammed with well dressed complaining elderly bingo players, shoppers, bridge tea-hounds and listen to patter that makes them wonder if it is to preserve such a way of life that they are working and their sons fighting.”²⁰

Kids Pitch In

Jean Coxe remembers standing nervously with her twin sister Joan, waiting to christen one of the fuel tanker ships that was built during World War II at the Odenbach plant in Greece.

Jean, whose maiden name was Schlueter, doesn’t remember much about what was said that day. The two girls, still in junior

high, “were probably more nervous about whether we would do the job right” to pay much attention to anything else.

But she does remember the bottle of champagne with the ribbon attached that the sisters swung against the ship near its bow, and how it backed out into Round Pond.

“We could see it going down in to the lake.”

The sisters had done their job just fine.

This wasn’t the only contribution Jean and Joan made to the war effort. Later in the war, they helped at a USO at the railroad station downtown. “Our job was to serve coffee, dance with the soldiers or sailors and just talk with them if they so requested,” Jean said.

And when their mother, Mary Alice Schlueter, decided to help the war effort by working on an assembly line at Delco Appliance Division, they had to take on additional responsibilities at their Rugby Avenue home.

Their father William worked a day shift at Taylor Instrument from 8 a.m. to 5 p.m. Their mother worked at Delco from 3 p.m. to midnight, leaving for work right after the girls got home from Nazareth Academy. That left a two- to three-hour period to look after a younger brother, and get dinner ready for their dad.

“That’s when my sister and I had to learn how to cook,” Jean recalls. They didn’t mind, though. As Jean recalls, the family took it all in stride.

Indeed, wartime families with both parents working and/or serving in the military learned to adjust their lives in ways that seemed novel then, but would be considered a matter of routine today. Consider, for example, this alarming development noted by Whitlock in June 1943: “In some instances we have discovered that parents are transacting family business by notes left on the kitchen table simply because they are not home at the same time”! ²¹

Richard Domagalski, an elementary student at School 22, had to be at day care by 6 a.m. because his mother, Sophie, and father, Stephen, both worked day shifts in war plants. He didn’t mind a bit. “I enjoyed going early in the morning because it was still dark outside.”

Richard’s father was an inspector at Kodak; his mother sewed military uniforms and parachutes at Timely Clothes, Inc. “She liked

to sew a lot. But she told me it was tough sewing parachutes compared to sewing clothes.”

Richard remembers the ration books, the blackouts when all the lights had to be turned off, and going around the neighborhood to collect newspapers and tin cans for the scrap drives. One weekend his family went up to Cobb’s Hill to visit the prisoner of war camp. He remembers the prisoners were still wearing their German uniforms. They were behind a high wire fence.

The day care he attended was operated in the basement of his school. Kids would run up and down the long hallway, Richard recalls. “Everybody seemed to have a good time.” Classes didn’t start until two to three hours later, so the young women running the day care had the children take naps on military cots.

“They taught me how to tie my shoes,” he added.

So the Schlueters and the Domagalskis, it appears, adjusted well. So did another family, for whom the war meant quite an upheaval indeed.

Off to “Dogpatch”

In 1944, a Kodak chemist and his wife who lived two doors down from Bill and Lois Davis on Lakeshire Road abruptly departed. “All of a sudden he just disappeared. Didn’t show up,” recalled Bill, who worked as an industrial engineer in Kodak’s controller division, evaluating production steps and setting time standards. “The next thing we knew they were selling his house. It was just one of those things. People disappeared.”

Davis had no idea where they had gone – until it was his turn. The company asked if he would be willing to go to a place called Oak Ridge. He wasn’t told exactly where it was. He wasn’t told exactly why the company needed to send some of its highly qualified people there. However, “the sense of urgency came across,” Davis recalled.

Bill and Lois talked it over that night, and two or three days later Bill was in Tennessee, riding down on a train that carried about 25 other Kodak professionals. The Davis’ put their house up for rent, and Lois arrived at Oak Ridge with one-year-old son Ralph about a month later.

Oak Ridge was the site chosen as part of the Manhattan Project to produce enriched uranium for the atomic bomb. Kodak had an especially important stake in the operations there. It's subsidiary, Tennessee Eastman of Kingsport, Tenn., had done stellar work producing a new high explosive called RDX at the sprawling Holston Ordnance Works. It was chosen to operate the Oak Ridge facility that would use an electromagnetic process to separate U-235 from U-238 for use in the bomb. Kodak wasn't the only Rochester company that sent people there. Five Taylor Instrument employees would later describe their experiences in the place they called "Dogpatch." By the summer of 1945, the tiny mountainside hamlet had grown into the fifth largest city in Tennessee with a population of 75,000 resident employees and temporary construction workers. Thousands of researchers, engineers, electricians and mechanics were resettled there from all across the country.²²

To accommodate the influx, prefabricated houses called "demountables" were put up. The plywood dwellings arrived in sections, with the linoleum, plumbing, wiring and basic furnishings already built in. They were simply bolted together on the site; depending on family size, anywhere from one- to four-bedroom demountables were available. The Davises lived in a two-bedroom for a year, then moved into a more permanent dwelling, made with laminated cement board, for the remainder of their two-year stay.

It was like living in a frontier town, "the only city in the world where you can stand in mud up to your hips, yet have dust blowing in your face," the Taylor Instrument workers recounted. Ronald Reamer, a Taylor engineer, brought in topsoil and reportedly had the only lawn in the vast town. Sightseers came from miles around to gawk at it.²³ Lois Davis remembers the hard red clay that the kids would track in every time it rained. The long lines at the only grocery store within the restricted area where the employees lived. The milk that had a flavor like wild onions. The soft coal that had to be burned in stoves in the middle of the living rooms for heat. It made a mess on the floor every time she put the coal in or tried to clean out the inevitable "clinkers" that didn't burn.

At least it was easy to find her way around the sprawling residential areas, Lois added. The main streets where the Davises lived,

for example, were named after the states, in alphabetical order, and each street branching off would start with the same set of letters. The Davises even ran into the chemist and wife who had abruptly disappeared from their Rochester neighborhood.

And they discovered a radically different culture. They were especially dismayed by the blatant segregation they witnessed. At construction sites, for example, there were barrels of drinking water with separate spigots for blacks and whites. Blacks lived in a separate part of the complex; any encountered on the bus sat in the back. Bill remembers sitting next to a black man on a train. He struck up a friendly conversation, but was soon approached by a conductor who told him “Young man you’re in the wrong company.” When Bill said he didn’t think so, the conductor warned, “If you don’t move I’ll pull the whistle and we’ll stop the train and throw you off.”

Thomas Norman was sent to Oak Ridge to teach calibration and operation of Taylor instruments used on the project. One of the biggest challenges, he said, was trying to train what the paper called “hill people,” many of whom had not completed grade school, how to use high-grade instruments. “Pressure for production was so terrific that we had to teach them to use instruments not yet produced. They’d ask us what the stuff would be used for. The funny part of it was, we didn’t know ourselves.”

But for all that, the Taylor employees concurred, it was a great experience. The Davises wouldn’t have missed it, either. Lynn, their second son, was born there. They made a lot of friends among families uprooted from other parts of the country. Bill learned important lessons about organization and chemical processes that helped his career. Both Bill and Lois came to better understand cultural differences.

“Everybody felt as though they were there temporarily,” Lois said. “Nobody felt that this was going to be their home for a long time. People were satisfied and willing to put up with the difficulties and laughed about them”

And wondered why they were there in the first place.

Top Secret

Even the people working at Oak Ridge were allowed to know only enough to do their jobs. Much of Bill's work involved evaluating jobs to help establish uniform wage standards for workers of different skills, coming from different parts of the country, doing different kinds of work. He remembers wearing a badge that indicated the areas he was allowed to enter, and what level of information he was entitled to know. He chuckles now, remembering how people would see him moving from area to area, carrying various organization charts. They assumed he was a scientist or engineer who was really in the know about what was going on. In fact, he had only a "feeling, nothing more, that something big was happening."

Security was strictly enforced. One of the Taylor employees forgot to wear his identification tag while out socially, and was hauled to jail. Reamer's wife, an accomplished artist, was picked up for sketching a barn. Marvin Sperling, a Taylor instrument maker, recalled being on a jam-packed bus that caught fire. He said the workers were so conscious of the need to act coolly in all circumstances that nobody rose till the bus driver gave the order.

It wasn't until after Hiroshima and Nagasaki that the Davises' realized exactly what kind of weapon had been unleashed with the help of Oak Ridge. At the time they accepted it as the best way to end the war. However, as the years passed, as the United States became involved in questionable conflicts in Vietnam and later El Salvador, the Davis' became convinced that wars are not a solution. And, after seeing pictures of Hiroshima, and talking to some of the victims, they became even more convinced that the unleashing of the atomic bomb was, as Bill puts it, "a terrible thing to do. Especially when I think of how close we were to ending the war without using it."

Transition To Peace

Japan's surrender touched off wild celebrations in the streets of Rochester. As many as 50,000 people swarmed downtown streets,

shouting, cheering, blowing on horns, banging on tin pans and ash cans in an “ear-splitting” celebration.²⁴

Even before V-J Day, however, the termination of war contracts, and the return to peacetime production had set in motion a massive “re-relocation” of the work force. Some sense of this was revealed in a Sept. 13, 1945, *Democrat and Chronicle* article relating that there had been about 18,000 layoffs in Rochester due to war contract terminations, of which about 5,000 employees had found other work. At least 8,000 were receiving or applying for unemployment insurance. And yet, 5,300 new peacetime jobs were going unfilled. Why? The article cited several mental and economic “hangovers” that were impeding the transition:

- Peacetime “take home” pay was lower than wartime wages, which had often included considerable overtime. “Thus a person who drew \$60 wartime pay a week might now face the prospect of a \$30 job.” With deductions, actual take home pay from the \$30 would be little more than the \$21 a week available for 26 weeks on unemployment insurance. Many people were apparently exercising that option while they waited for the employment situation to become clearer.

- Hundreds of weary war workers were simply taking a “deserved rest,” enjoying real vacations for the first time in four years, fully intending to return to work afterwards.

- Businesses and industry were more selective, hiring only those who already had the best skills and training “whereas under war pressure almost anyone could land some sort of job.”

Unaccounted for were another 5,000 displaced workers. Many, it was believed, were “wives and mothers who took war jobs to help out and did not plan to continue in industry after victory, plus children who returned to school.”

Indeed, it was assumed, the women who had replaced workers called into the service would be more than happy to relinquish those jobs to the returning veterans, and go back to being housewives or waitresses or department store clerks. However, not all women war workers were willing to do so.

Women Feel Entitled

In the years before the war, when jobs were scarce, schools and many businesses would not hire married women, columnist Jane Fales noted in September 1944. This had nothing to do with a married woman's ability. Instead, "it wasn't considered economically 'fair' for a married woman to be holding down a job which might go, instead, to a man or an unmarried woman who, it was universally assumed, was necessarily self-supporting." This was especially true during the Depression.

"What a lot of women would like to know now is [will] employment of women ... be regulated by this yardstick again in the post-war era?"

As it turned out, a great many women had suddenly found themselves "thrust into jobs which they have found interesting and fascinating and who, war or no war, have come to feel that they want, and are entitled to, a 'career,' – and never mind whether they were married or single, Fales wrote.²⁵

However, the remarkable transformation of Rochester's workforce during the war years was, by and large, only temporary. By 1950, for example, the percentage of women workers had reverted pretty much to what it had been in 1940.²⁶

And for many of the young girls who left high school to work in assembly lines or war plant offices, there was an unfortunate legacy from the war. They never went back to get their diplomas. And many have regretted it ever since. "Education is everything," one of these women said.

And what of the men these women replaced on the assembly lines and in the offices – the men who went off to fight the war? It would not be easy for all of them to settle back into the same jobs. For many returning war veterans, another kind of dislocation had occurred.

A Personal Odyssey

Bob Kadar drove up to the entrance of Rochester Products Division three or four times during the summer of 1945 and parked outside. "I looked at the place and couldn't go back in. I was not

sure why.” When he returned to Rochester after flying those 35 bombing missions, he was supposed to report back to Rochester Products within 90 days.

And eventually he did. But he still couldn’t shake the feeling he didn’t belong there. Finally, he went to the personnel department to give notice. When asked why, he replied: “I don’t like what I’m doing, and when I look around I see older people doing things I don’t want to do at that age.”

Those tense, harrowing moments enduring flak and enemy fighters over the Ploesti oil fields had changed Kadar and his attitude toward work. His experiences on that bomber had tested him, made him more confident, made him realize he had leadership abilities. All of a sudden, the assembly line was not so appealing to him.

The personnel department referred Kadar to the training department where, fortunately, the person he talked to had been one of his teachers at West High. The former teacher suggested that Kadar take some classes in electrical engineering. The next day he was sitting at Mechanic’s Institute in a three-year program that let him attend classes in two-month blocs, then return to Rochester Products to work in various departments. Eventually he became a senior product engineer, supervising more than 30 engineers and technicians. “I fully enjoyed my career once I found out what it was.”

For this war worker/serviceman, like so many others, World War II meant something more than participating in a great crusade to defeat the enemy. It had been a personal odyssey. “It was the turning point in my life.”

Marcotte is the Just Ask columnist for the Democrat and Chronicle and author of Where They Fell: Stories of Rochester Area Soldiers in the Civil War. He would like to thank the many former Rochester war plant workers who agreed to share their experiences for this article.

End Notes

1. *Times-Union*, Nov. 10, 1942.
2. *Ibid*, Dec. 16, 1942.
3. *Democrat and Chronicle*, Dec. 29, 1944.

4. *Ibid*, July 3, 1945.
5. *Ibid*, Nov. 12, 1943.
6. *Ibid*, Dec. 9, 1943.
7. *Ibid*, July 31, 1943.
8. *Times-Union*, Sept. 3, 1942; *Democrat and Chronicle*, June 6, 1945.
9. *Ibid*, May 7, 1942; *Democrat and Chronicle*, June 11, 1943.
10. *Democrat and Chronicle*, Nov. 9, 1943.
11. *Ibid*, June 23, 1945.
12. *Ibid*, Aug. 4, 1944.
13. See, for example, *Democrat and Chronicle* June 29 and April 9, 1943.
14. Mosher: *Ibid*, June 30, 1943. Baart: *Ibid*, June 6, 1945. Bruno: *Ibid*, July 20, 1944. Gold Star Moms: *Ibid* July 11, 1945.
15. *Times-Union*, Aug. 6, 1942; *Democrat and Chronicle*, Jan. 16 and Feb. 9, 1943.
16. Salary figures are from the *Times-Union*, Sept. 14, 1942 and the 1944 Annual Report of the State Industrial Commissioner, p. 106. In 1943 the state Department of Labor surveyed 2,147 war plants statewide that had requested various dispensations for longer working hours, multiple shifts, etc. Of the 886 plants that provided entrance salary rates, 30 percent indicated they were paying women less than men in identical occupations. The percentage was even higher – 39 percent – in upstate New York. And in Rochester, 39 of 69 plants providing the pay information were paying women at lower rates. “A few employers, in reporting lower rates for women, added that the women’s jobs were ‘simplified’” or that women required set-up and assistance from men, the survey noted. See “War Dispensations, Dec. 7, 1941 to May 31, 1943,” Bureau of Research, Division of Women in Industry and Minimum Wage. Albany: August 1943.
17. *Democrat and Chronicle*, Aug. 19 and 29, 1945.
18. *Ibid*, June 10, 1943; *Ibid*, April 20, 1943.
19. *Ibid*, March 3 and 5, 1943.
20. *Ibid*, March 9, 1943.
21. *Ibid*, June 10, 1943.
22. Holston: see Norris, Robert S., *Racing for the Bomb: General*

Leslie R. Groves, the Manhattan Project's Indispensable Man, (South Royalton, Vt.: Steerforth Press, 2002), pp.198-200. Dogpatch: See Jones, Vincent C., Manhattan: The Army and the Atomic Bomb (Washington, D.C.: Center of Military History, U.S. Army, 1985), pp. 140, 432-449.

23. *Democrat and Chronicle*, Aug. 30, 1945.

24. *Ibid*, Aug. 15, 1945.

25. *Ibid*, Sept. 17, 1944.

26. A U.S. study of the Rochester labor force showed that by 1947, 32 percent of the manufacturing workforce in Rochester was female, compared with 27.6 percent in 1940. More significantly, 49 percent of the female workforce was in manufacturing, compared with 38 percent in 1940. See: "Labor Force Characteristics of the Rochester, N.Y., Metropolitan District, April, 1947," U.S. Bureau of the Census, Series P-51, No. 27, Washington, D.C. However, this was largely erased by the 1950 census, when 33.1 percent of the Monroe County workforce was female, compared to 30.4 in 1940; women made up 38.6 percent of the manufacturing work force, compared to 37.3 percent in 1940, and 29.4 percent of women workers were in manufacturing, compared with 27.4 percent in 1940. See "Characteristics of the Population of the Rochester, N.Y., Standard Metropolitan Area: April 1, 1950," U.S. Bureau of the Census, Series PC-5, No. 41, Washington, D.C.



Detail From Advertisement in Democrat and Chronicle May 8, 1944. Full Advertisement on back cover of Part One.












EYES ON VICTORY!

Rochester's huge Bausch and Lomb plant is at war. All the world knows that... for B&L precision products are aiding us indomitably and hurting the Axis just as immeasurably. How many B&L products do you recognize by sight?

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3. Spotting scopes are of significant military value in the training of expert riflemen.
4. Binoculars are as necessary a part of the equipment of these Atlantic convoy look-outs as the life jackets they wear.
5. Antitank gun sights are shown in use by crew of a 37 mm. antitank gun at Fort Benning, Ga.
6. Blinker lights are used for sending messages; binoculars for receiving them.
7. An antiaircraft crew member scans the skies with specially built equipment.
8. Battery commanders' telescopes are among many precise optical instruments for observing effect and controlling accuracy of artillery fire.
9. Powerful searchlights are the eyes of antiaircraft defense. Their huge mirrors must have optically perfect, parabolic surfaces.
10. With only this bubble sextant and the stars as his guide, the aerial navigator can determine his position precisely.
11. A gun sight telescope applied to gun pointing practice.






Back cover: From Democrat and Chronicle May 8, 1944

