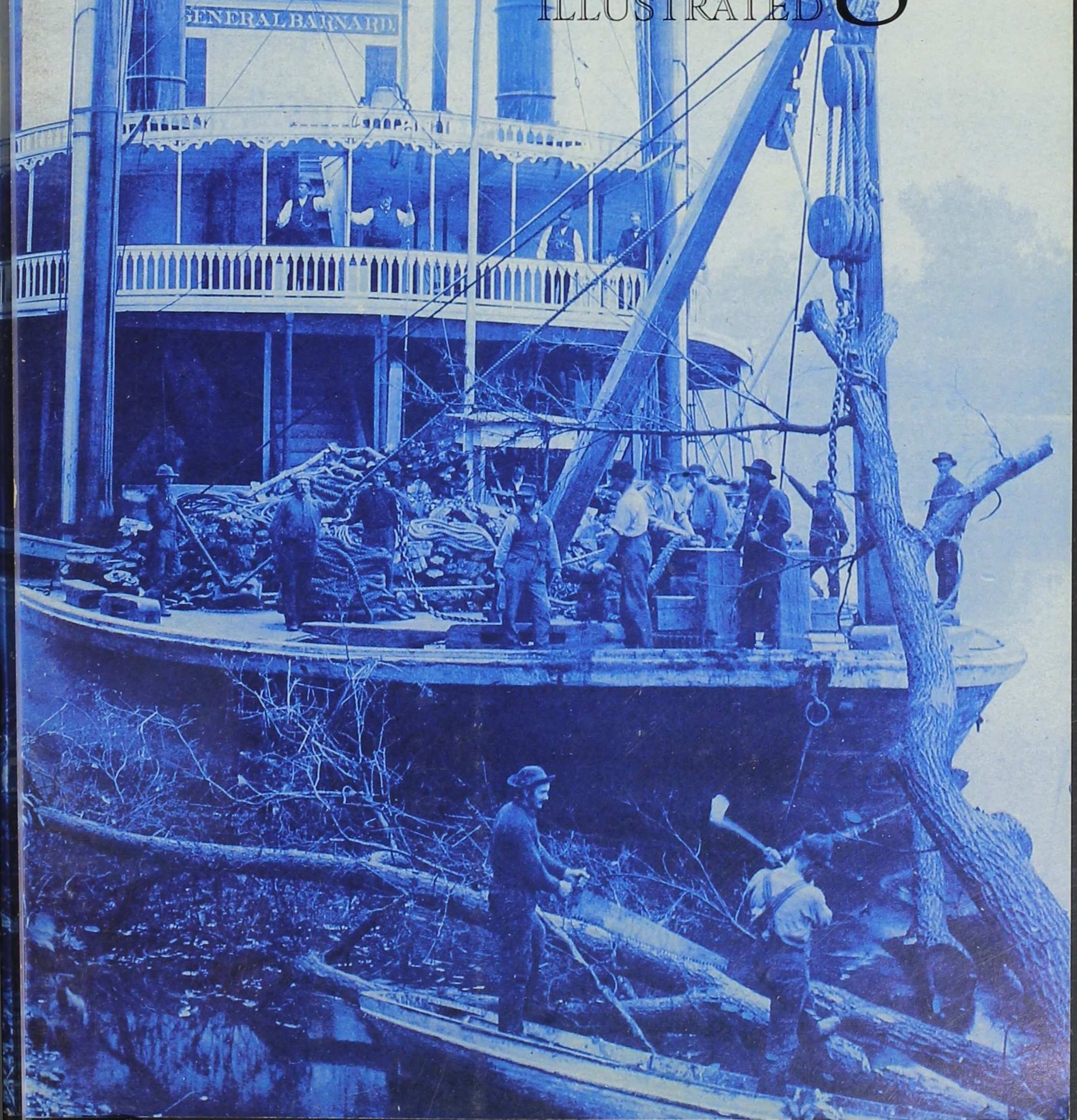


Mississippi River & the Corps of Engineers • Norman Baker • Camouflage for World War I

FALL 1997 • \$6

Iowa Heritage

ILLUSTRATED



Front Porch

Dear Readers:

History looks at change, and this issue of your magazine is no exception. Each article in this issue pivots on some particular change. In our first article, the advent of airplanes and aerial observation in warfare changed methods of military camouflage, and three Iowa artists participated in those efforts in World War I. In the second article, changes in technology brought about the radio in the 1920s, and an Iowan named Norman Baker capitalized on the radio to build his following and promote his causes. In the final article, we look at the changes the U.S. Army Corps of Engineers made to the Mississippi River in the late 19th century, as evidenced by the photographs of Henry Bosse.

But some things never change—the turkey still reigns supreme as an American Thanksgiving icon, just as it did on the colorful postcards featured in this issue's "One in a Million." —*The Editor*

More on Tom Runyon

It was quite a surprise to my wife and me to receive a telephone call from James McGrath Morris [author of "Leaves from a Lifer's Notebook: The Tom Runyon Story," Spring 1997] and the subsequent package with copies of the magazine. To have my father's name mentioned outside our family was certainly unexpected after all these years.

I am only sorry that my aunt "D.V." (Dela Vernice) isn't alive to see the work and research you have done. She never wavered in her support of my father. I remember warden Percy Lainson, who allowed my father and me to meet without having bars between us. I remember Addie and Ole. We visited several times while D.V., my uncle, and I were living in Des Moines. Unfortunately I was not able to meet Earl Stanley Gardner.

Until I read your article in *Iowa Heritage Illustrated*, I do not think I fully realized the professional reputation my father had achieved as a prison journalist.

Thank you so much for the copies of your magazine. Having lived in Iowa I enjoyed the other articles in addition to the one on my father by Mr. Morris. I only wish my aunt D.V. was alive to read your fine magazine. She would have enjoyed all the articles as well. I have no one to share it with other than my immediate family, and they didn't have an opportunity to meet my father. I now wonder if my aunt truly realized what her brother had accomplished. She certainly didn't give any indication of it to me.

I want to express my gratitude to Mr. Morris, to you, and to your fine magazine for showing me a side of my father that I didn't know existed.

Tom Runyon
Salina, Kansas

Enjoys early color photos

Philip Hockett's article on early color photography (Spring 1997) was a success in every way, artistically, aesthetically, and technically. I especially liked the cover photo of the Iowa State Fair and J. Baylor Roberts's photo of the University of Iowa 1938 Homecoming.

Fred Kent would have roundly congratulated Mr. Hockett on a job well done. I knew Fred Kent through bird watching when I was a student in the 1960s. A finer person I never met.

Keep your articles on the same high plane.

John Brouhard
Onawa, Iowa

Women's club celebrates its history

The June 1946 issue of *The Palimpsest* [the previous name of *Iowa Heritage Illustrated*] carried an article written by Hugh H. Shepard about a lady named Cornelia Cannon. It tells how she started a neighborhood ladies group in 1913

that became known as the Cornelia Cannon Club. I am writing to tell you that the club still exists. The group is anticipating observing the club's 85th year sometime during 1998.

In 1922, another neighborhood club was formed in the same area near the Winnebago Creek and the Calmus Creek and they called themselves the Inter-Creek Club. Some of the Cornelia Cannon Club members also belonged to Inter-Creek.

Membership in both clubs dwindled because farm women no longer stayed on the farm and worked with their husbands but took jobs in town, so in 1988 the two clubs combined and chose the name Cornelia Cannon Inter-Creek Club (CCIC Club).

Jean Hoefer
Mason City, Iowa

From the Editor: Our congratulations to the CCIC Club! Ms. Hoefer and other readers interested in women's clubs might like to know about the Winter/Spring 1997 issue of *The Annals of Iowa*, also published here at the State Historical Society of Iowa. The special issue of the journal is devoted to women's clubs in Iowa history, 1890-1940. It provides in-depth looks at specific Iowa groups (the Osage Shakespearean Club, the Iowa Daughters of the American Revolution, the Sioux City Women's International League for Peace and Freedom, and Republican women's clubs in Tama County) and sets them into the context of Iowa history. To order the Winter/Spring 1997 *Annals* (\$6 plus shipping), call SHSI Publications, 319-335-3916.

Come and converse on the front porch! Share your thoughts with other readers here on the Front Porch. Send your letters to Editor, *Iowa Heritage Illustrated*, 402 Iowa Ave., Iowa City, IA 52240-1806. E-mail: gswaim@blue.weeg.uiowa.edu Fax: 319-335-3935. (Letters may be edited for length and clarity.)

Editor: Ginalie Swaim
Subscription Coordinator: Carol Carey
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In 1920, the State Historical Society of Iowa founded one of the nation's first popular history magazines—*The Palimpsest*. The magazine was renamed *Iowa Heritage Illustrated* in 1996, the year of Iowa's 150th anniversary of statehood.

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Let your imagination soar
on a voyage to Iowa's past . . .

Heritage Illustrated

RATED

Fall 1997, Vol. 78, No. 3



Contribution 98
Heritage

In a war with plaster
the Allies in World
their best, camouflaging
snipers, and
to detect aerial

Behrens



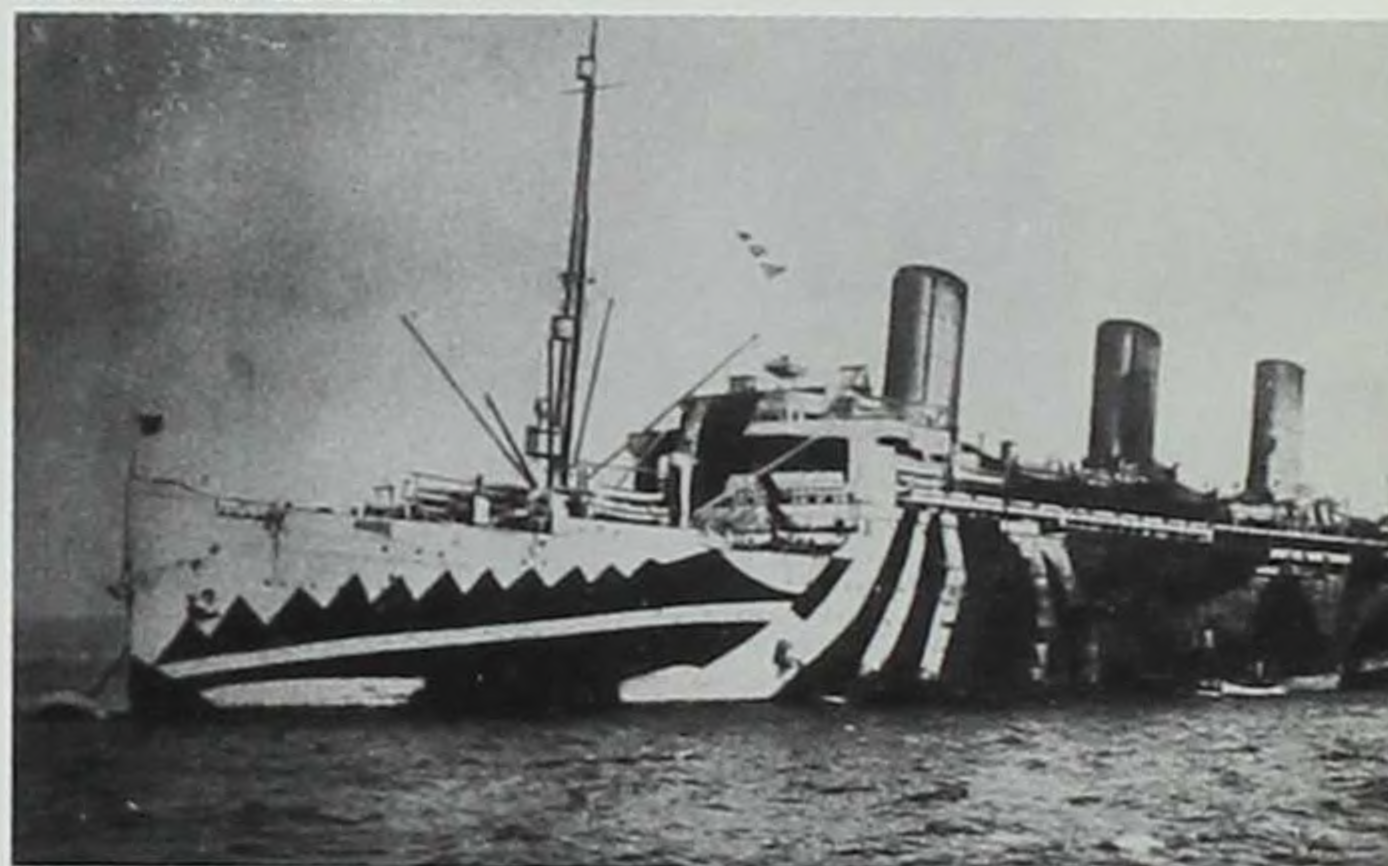
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COURTESY OF ROY BEHRENS



98 Dazzle painting the Leviathan

Norman Baker 110

and hype to any willing buyer, he took on the
Medical Association, rabble-roused through the Cedar
War, and campaigned for office in a lavender roadster.
to make of Norman Baker today?

Behrens

"Digging the River": 130
Norman Baker's Images

digging Mississippi
of the great waterway,
dams, spanned by
opened by channels.

Behrens



110 Norman Baker's flour power

Heritage Illustrated

The U.S. General Barnard is poised to remove
from the Mississippi in this 1885 cyanotype
by Henry Peter Bosse. Bosse was a draftsman
in the Army Corps of Engineers. Today, his rare im-
age documents the changes the Corps made to the Missis-
sippi to make it more navigable in the 19th century. This
is a selection of his photos related to Iowa.

* off the single-copy price

Iowa Heritage

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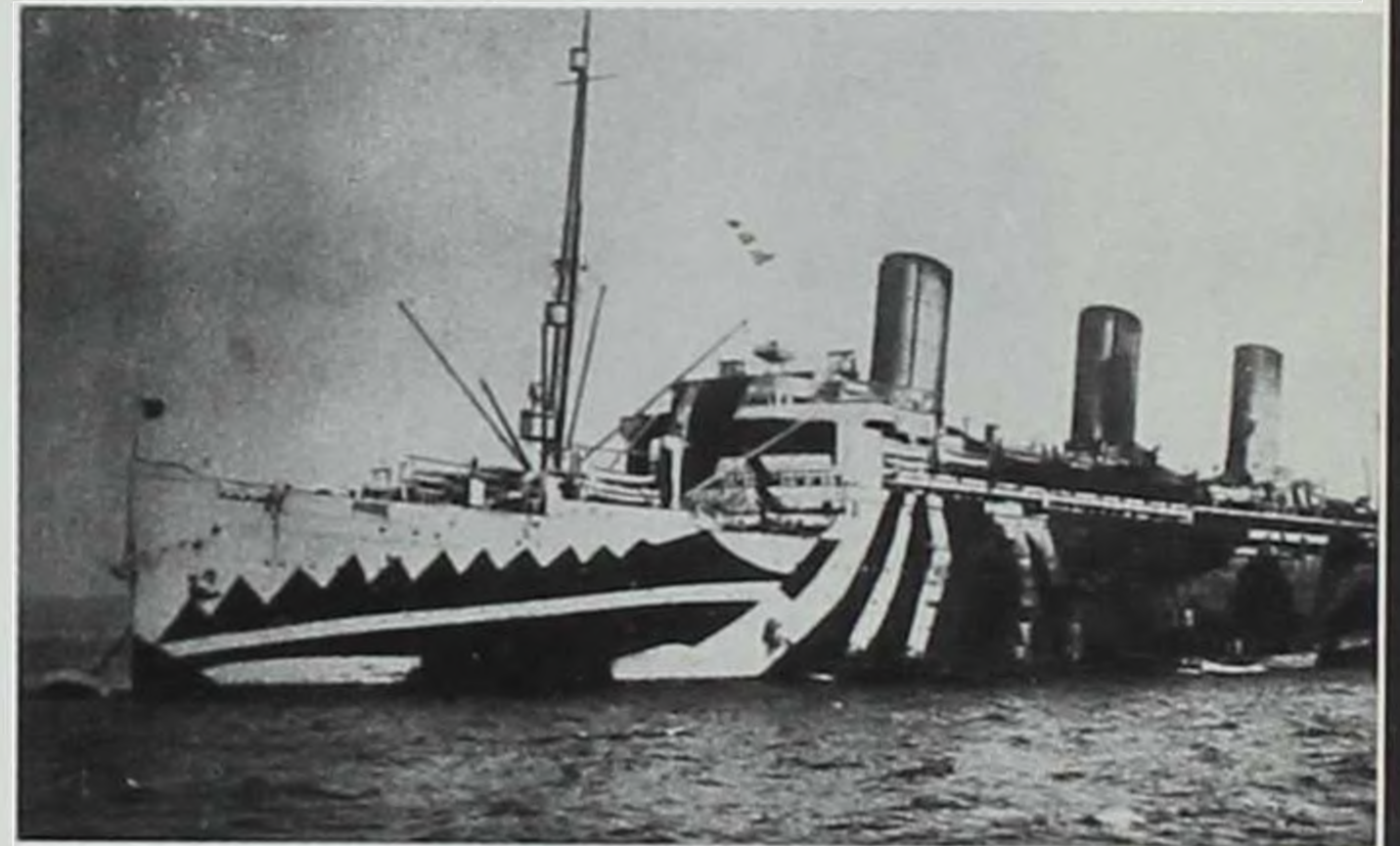
130 Shortening the Mississippi

Iowa's Contribution to Camouflage 98

Can you win a war with plaster and paint? The Allies in World War I did their best, camouflaging roads and cannons, snipers and ships to escape detection by aerial observation.

by Roy R. Behrens

COURTESY OF ROY BEHRENS



98 Dazzle painting the Leviathan

Demagoguery in the Corn Belt: Iowa's Norman Baker 110

Selling hope and hype to any willing buyer, he took on the American Medical Association, rabble-roused through the Cedar County Cow War, and campaigned for office in a lavender roadster. What are we to make of Norman Baker today?

by Eric Juhnke

"Shortening the River": Henry Bosse's Images of the Changing Mississippi 130

Rare photos of the great waterway, bridled by dams, spanned by bridges, deepened by channels.

by Ron W. Deiss



110 Norman Baker's flour power



BOTH CYANOTYPES: U.S. ARMY CORPS OF ENGINEERS, ROCK ISLAND DISTRICT

On the Cover

The crew of the U.S. General Barnard is poised to remove a dead tree from the Mississippi in this 1885 cyanotype photograph by Henry Peter Bosse. Bosse was a draftsman for the U.S. Army Corps of Engineers. Today, his rare images document the changes the Corps made to the Mississippi to make it more navigable in the 19th century. This issue features a selection of his photos related to Iowa.

BOTH PHOTOS: AMERICAN EXPEDITIONARY FORCES PHOTOGRAPHS (SHSI-IOWA CITY)



Iowa's Contribution to Camouflage

by Roy R. Behrens



U.S. ARMY PHOTOGRAPH, NATIONAL ARCHIVES AND RECORD SERVICE



The main character in *Bluebeard*, a novel by Kurt Vonnegut, is a painter who served in the U.S. Army during World War II as commander of a camouflage unit. All the soldiers in this troop had been artists in civilian life because, as the book explains, "it was the theory of someone in the Army that we [artists] would be especially good at camouflage."

Vonnegut's novel is fiction, but its central idea is based on the fact that, during World Wars I and II, there really were units of camouflage specialists (or *camoufleurs*, as the French called them). And these units were largely made up of soldiers—among them a number of Iowans—who in civilian life had been artists of one kind or another, including painters, sculptors, printmakers, graphic designers, illustrators, architects, and stage designers. The first such unit was set up in 1915 by the French, but comparable units were later deployed by the British and Americans, and, to a lesser extent, by the Germans, Italians, and Russians.

The belief that visual artists are inherently well suited for camouflage can be traced to a pioneering book about natural camouflage, first published in 1909. Titled *Concealing Coloration in the Animal Kingdom: An Exposition of the Laws of Disguise Through Color and Pattern*, it was written not by a scientist but by a leading American painter, Abbott H. Thayer, who claimed that the subject should never be left to biologists, because it "belongs to the realm of pictorial art, and can be interpreted only by painters."

The wartime use of camouflage is hardly a modern invention. But its importance became magnified during World War I in response to the use of the airplane for aerial observation. By flying over a battle-

Military camouflage in World War I took many forms, drawing on painting, theatrical design, and sculpture. Clockwise, from top left: Brown burlap suspended over a French street camouflages a route for troops and supplies. A sniper's uniform is striped to blend in with tree branches. "Chateau Camouflage" at Camp Wadsworth shows talents of 102nd Engineers. A member of the American Camouflage Corps emerges from a concealed foxhole, as others look on.

field, aviators could locate the troops and artillery of the enemy, then relay those positions to their own forces. In 1914, Lucien-Victor Guirand de Scevola, a French artist who was serving in the infantry, began to paint abstract, irregular shapes on the surfaces of cannon, which were manned by gunners dressed in loose-fitting hooded outfits that had also been painted. In de Scevola's field experiments, when an aviator flew over the area at 300 meters with instructions to look for camouflaged artillery, neither the men nor the guns could be seen from that altitude.

As a consequence, in February 1915, just seven months after the start of the war, the French government established the first *section de camouflage* in military history. The artist de Scevola was chosen to command the French unit, which began with only six men and grew, phenomenally, to a total of 3,000 men and women by 1917. The practice was quickly adopted by other countries, with the result that hundreds of artists were used during both world wars, by participants on all sides of the conflicts, as military or civil defense camouflage experts. These artists included such prominent painters as Thomas Hart Benton, Jacques Villon, Franz Marc, Arshile Gorky, Charles Burchfield, and Ellsworth Kelly; graphic designer Laszlo Moholy-Nagy; theater designers Jo Mielziner and Oskar Schlemmer; fashion designer Bill Blass; and animation artists at the Walt Disney Studio.

Among the Americans who served as military *camoufleurs* during World War I were three Iowa-born artists: Sherry Edmundson Fry (1879-1966), who cofounded the American Camouflage Corps, designed field camouflage in France, and is otherwise known as the sculptor of the statue of Chief Mahaska in the Oskaloosa town square; the celebrated painter

AMERICAN EXPEDITIONARY FORCES PHOTOGRAPHS (SHSHOWA CITY)



Grant Wood (1892-1942), who was assigned to artillery camouflage while stationed at an army camp in Washington, D.C.; and a painter and designer named Everett Longley Warner (1877-1963), who served as a leading authority on ship camouflage for the U.S. Navy.

PHOTOGRAPHS OF ARTISTS, COLLECTION ONE, ARCHIVES OF AMERICAN ART, SMITHSONIAN INSTITUTION



During World War I, Sherry Fry (left) was one of the first American artists to volunteer as a camouflage expert. Born in Creston on September 29, 1879, he left Iowa to study at the school of the Art Institute of Chicago; at the Académie Julian and the Ecole des Beaux Arts in Paris; and later with Frederick McMonnies, who was a student of Augustus Saint-Gaudens, the most famous American sculptor of the 19th century. Fry's abilities were extraordinary, and,

early in his career, he won several prestigious prizes, which led to his being commissioned to make a pediment for the Frick Museum in New York City, reliefs for the Grant Memorial in Washington, D.C., and the fountains at St. George on Staten Island.

In 1907, while living in Paris, Fry was asked to create a bronze statue of Mahaska, the 19th-century leader of the Ioway nation of Native Americans. Returning to his home state, Fry visited the Mesquakie settlement at Tama to make drawings of Native

COURTESY OF THE AUTHOR



Abstract, irregular patterns camouflage French railroad cars. This may have been the news photograph that Iowan Sherry Fry showed to Barry Faulkner in 1917.

Americans there, which he used as the basis for building a clay scale model of a heroic standing figure. Back in Paris, the final full-sized bronze was cast, exhibited briefly at the Louvre, and then shipped to Iowa, where it stands in the park in the center of town in Oskaloosa.

Prior to 1917 and America's official entry into the war, Sherry Fry had moved back from Europe and was living in New York. That year, he approached a friend and fellow artist named Barry Faulkner, who had studied with Saint-Gaudens, and was a cousin and former student of none other than Abbott Thayer, who had argued that artists were naturally good at interpreting camouflage. When Fry approached Faulkner, he showed him a photograph of railway cars that French camoufleurs—following the example of de Scevola's cannon—had disrupted with abstract, irregular shapes. Since the United States had by now declared war, Fry and Faulkner reasoned, perhaps its own artists should volunteer as camouflage experts.

Soon after, the U.S. established its Camouflage Corps. Its commanding officer was Lieutenant Homer Saint-Gaudens, son of the famous sculptor, and Fry and Faulkner were among its first members. Housed initially on the campus of George Washington University, its soldiers did calisthenics and marched in the morning, then hiked and invented deception techniques in the afternoon. For publicity, they concealed their own barracks, and, under Fry's direction, "painted cars and trucks in disruptive patterns; constructed papier mâché dummies of fallen tree trunks from whose interiors an unseen sniper could shoot," Faulkner recalled, "and dug trenches covered with sod and bushes from which soldiers could pop out and discomfit the enemy."

On New Year's Day 1918, the Camouflage Corps sailed for Europe. Arriving at the French harbor of Brest, Faulkner remembered: "We saw that camouflage had preceded us, for the harbor was full of boats, both French and American, painted in a riot of disruptive patterns." From there, they were sent on to Dijon, where they assisted the French in constructing a plant for the production of



This pair of official U.S. Army Expeditionary Forces photographs shows the trick a camoufleur hoped to play on the enemy. What appears to be a dead horse on the battlefield (left) is actually a plaster cast hiding a sharpshooter (right).



Photographed by the U.S. Signal Corps, this scene shows a demonstration of camouflage in which President Woodrow Wilson is told that a man is concealed within ten feet of him. Wilson is astonished when the rock in the foreground rolls away, revealing a man in a pit, who promptly salutes him. Iowan Sherry Fry's work also impressed the dignitaries; he had created a papier-mâché tree stump that hid a sniper in a pit.

Fearful of more German air raids, workers create camouflage in the Aisne district of France.

camouflage materiel. In addition to artillery cover (made of chicken wire into which cloth strips had been interwoven), the facility designed and manufactured paint-streaked, hooded sniper suits; periscopes disguised as tree branches; papier mâché listening posts in the form of hollow horse carcasses; armor-plated observation posts consisting of realistic replicas of dead trees (clandestinely traded with genuine trees during the night); deceptive foxhole covers; life-sized dummy soldiers and false heads (used to divert enemy fire); and miles of phony canvas roads suspended above ground, which blocked out the movement of soldiers below.

On February 2, 1918, Fry and Faulkner were transferred to the front lines, where Fry's specialty was concealing machine guns and trench mortars. Years later, Faulkner recalled that his Iowa friend "had little sense of fear and less of discipline"; that he "had an insatiable curiosity" and "resented taking orders." As a result, Fry defied regulations and frequently went out exploring alone in abandoned trenches, looking for German helmets, belt buckles, and other wartime souvenirs. Fry and Faulkner drifted apart, the latter remembered, as these foolhardy, dangerous forays became Fry's chief preoccupation. His superiors became concerned, and, before long, Fry was transferred away from the front, to Chantilly. There, because he spoke French fluently, he became the American liaison to the French camouflage section.



AMERICAN EXPEDITIONARY FORCES PHOTOGRAPHS (SHSI-IOWA CITY)



JOAN LIFFRING-ZUG COLLECTION (SHSI-IOWA CITY)

Like Fry, Iowan Grant Wood (left) studied at the school of the Art Institute of Chicago and, much later, at the Académie Julian in Paris. Born near Anamosa, Iowa, on February 13, 1891, Wood spent much of his early life in Cedar Rapids. After graduating from high school, he enrolled for two summers at the Minneapolis School of Design, Handicraft and Normal Art, where he worked with Ernest Batchelder, a



Fearful of more German air raids, workers create camouflage in the Aisne district of France.

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AMERICAN EXPEDITIONARY FORCES PHOTOGRAPHS (ISHIOWA CITY)





Allied camoufleurs painted this canvas to blend with surrounding greenery and conceal the actual road behind the screen.



Men of the 40th Engineers of the American University erect a false house, its painted side resembling theatrical scenery.

proponent of the British arts and crafts movement and author of a popular textbook about artistic composition, titled *The Principles of Design*. At age 22, Wood moved to Chicago, where he attended evening classes at the Art Institute and designed jewelry during the day.

When America declared war in 1917, Wood was excused from the draft because of flat feet. A few months later, he waived the exemption, volunteered for the army, and was assigned to Camp Dodge near Des Moines. There, presumably because of his artistic skills, he was spared the less palatable aspects of military life and given a sidecar motorcycle, in which he drove around the camp making drawings as a historical record, including pencil portraits of officers and enlisted colleagues. Wood's military experience was apparently pleasant and uneventful, until he became seriously ill, apparently from an attack of appendicitis.

After his medical recovery, Wood was transferred to Company B, Regiment 97 of the United States Engineers, in Washington, D.C., where he was assigned

to a camouflage unit. He was placed in charge of the paint storage tent, and, in the brief months before the war ended, he made clay models of concealed gun installations on miniature battlefields, and adapted camouflage patterns to artillery. After the war, he rarely mentioned his experience as a camoufleur, so it may have had little explicit effect on his mature artwork. On the other hand, if one looks closely at his finest paintings, his interest in pattern and rhythm is clear. In *American Gothic* and *Portrait of Nan*, for example, he makes overt, deliberate use of visual rhymes and broken symmetries—age-old composition tricks that, applied to camouflage, are devices that Thayer referred to as “laws of disguise.”

To conceal advancing troops on the Marne Front, men erect a screen, its visual line broken by random scraps of cloth.

The third camoufleur from Iowa was a painter named Everett Longley Warner (*right*), who was born in Vinton on July 6, 1877. He began his art training at the Art Students League in New York, and then, like his contemporaries, moved on to Europe to enroll at the Académie Julian. As a Navy Reserve lieutenant during World War I, he was in charge of a handful of artists who invented confusing, irregular schemes that were painted on

COURTESY OF CARNEGIE MELLON UNIVERSITY ARCHIVES

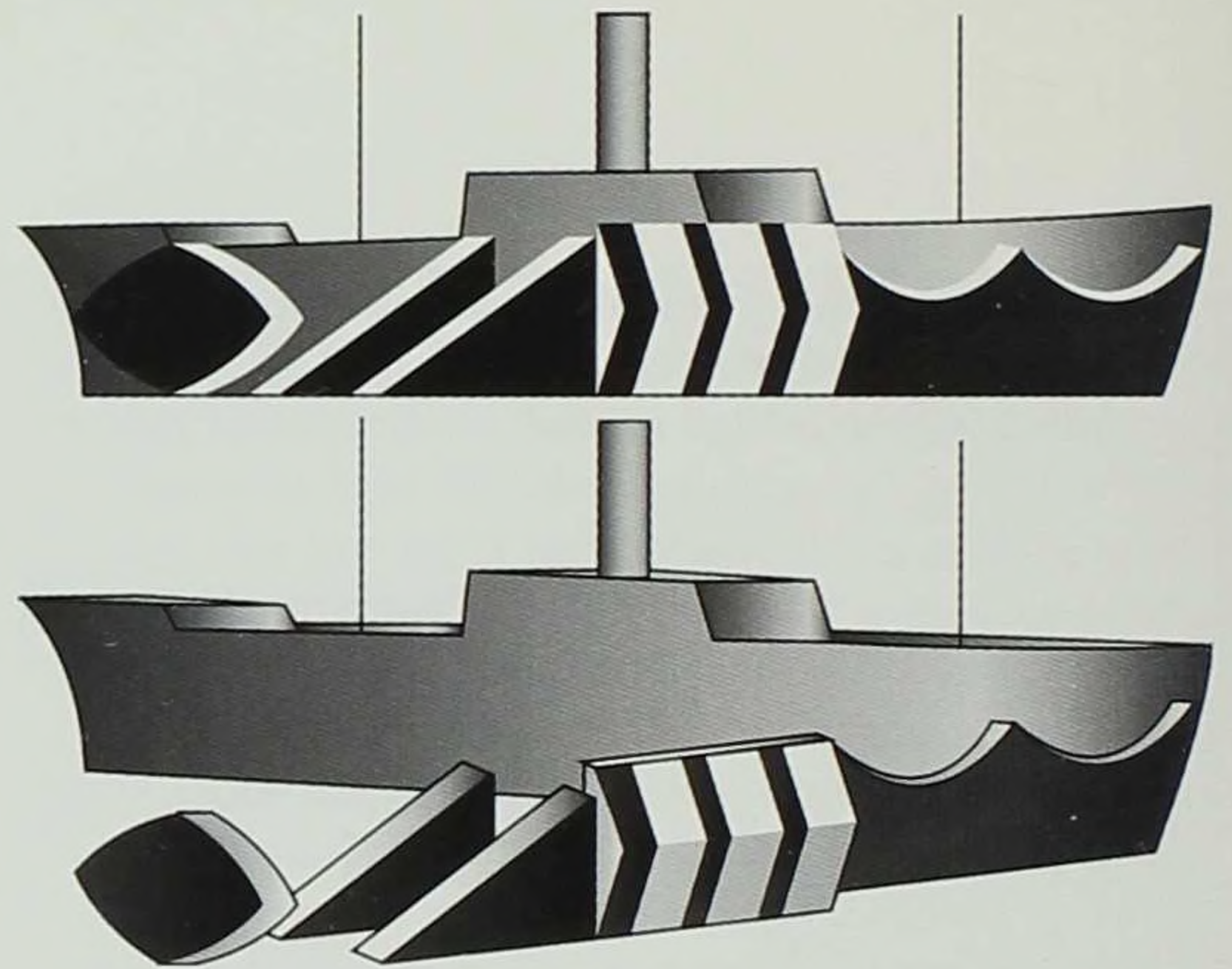


AMERICAN EXPEDITIONARY FORCES PHOTOGRAPHS (SHSI-IOWA CITY)

American ships. Warner's contributions to ship concealment were both innovative and significant, and he volunteered again as a camouflage expert during World War II.

The requirements of ship camouflage are different from those of ground camouflage. That became painfully evident in 1917, when German submarines sank an average of more than 23 British ships each week, for a total of 925. The worst week was in mid-April of that year, when 55 British ships, both merchant and military, were destroyed, an average of nearly eight ships per day. Faced with almost certain defeat, the Allies were frantically looking for ways to circumvent the u-boats' torpedoes.

A surprising solution to the submarine crisis was proposed by Norman Wilkinson, a British artist and lieutenant in the Royal Navy. In ship camouflage, explained Wilkinson, the object to be camouflaged is



Everett Warner's method of inventing dazzle camouflage schemes involved arranging colored wooden blocks at an oblique angle along the side of a ship model, then converting that arrangement to a flat painted pattern. (This illustration was redrawn by Ryan McAdam in 1997 from World War I-era U.S. Navy photographs.)

COURTESY OF THE AUTHOR



Four members of the American ship camouflage unit working under the direction of Iowan Everett Warner (not shown) apply dazzle patterns to miniature wooden ship models. Second from the right is the American painter Frederic Waugh.

U.S. NAVY DEPARTMENT PHOTOGRAPH, NATIONAL ARCHIVES AND RECORD SERVICE, C.1918

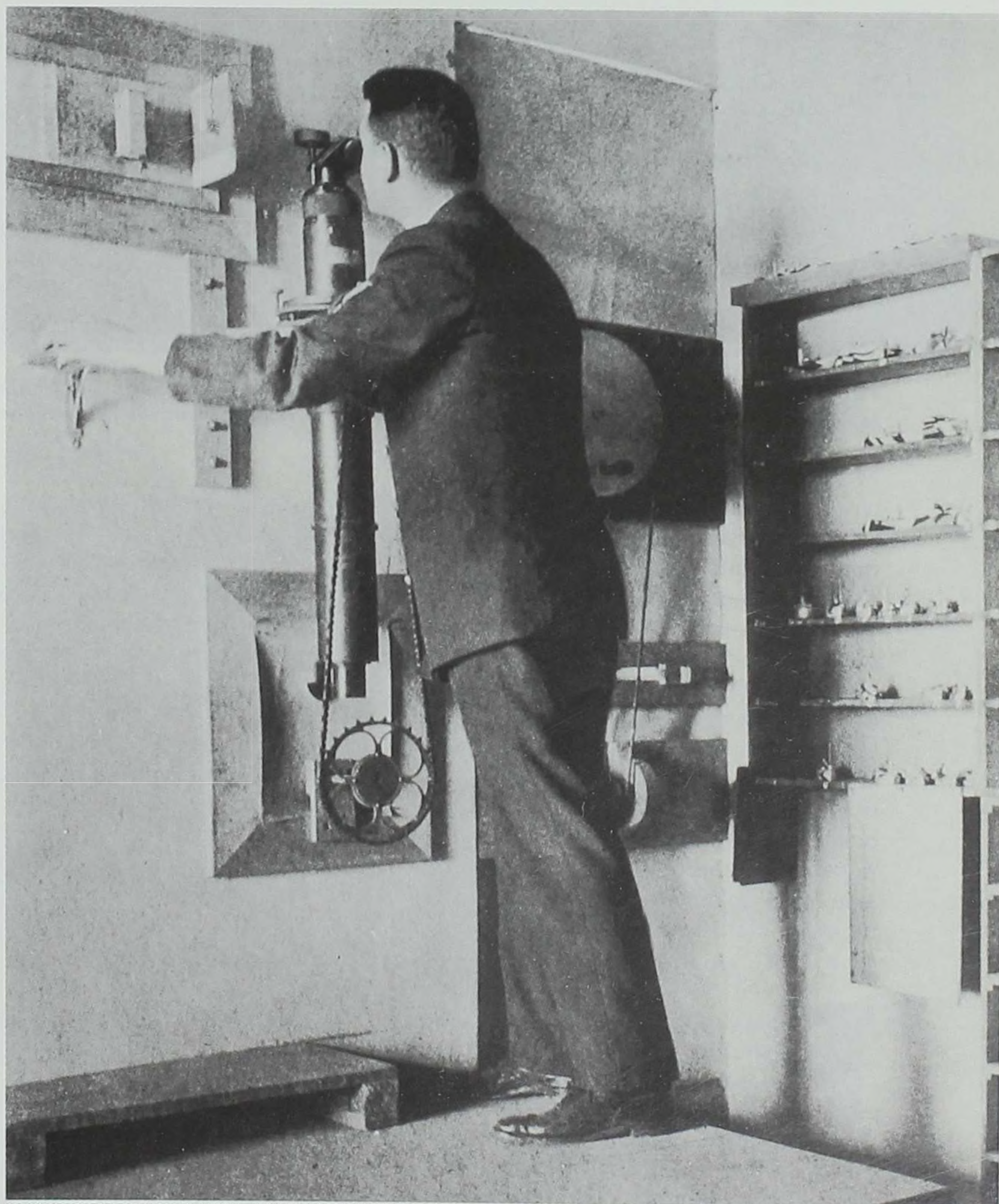
nearly always moving, and conditions around it are changing as well. Given these and other variables, it was absurd to attempt to conceal a ship on the ocean; if nothing else, the smoke from its smokestack would give it away. Rather, it would be more effective to paint abstract, irregular shapes on its sides (called "dazzle painting"), making it even more visible in the hope of diverting the submarine's aim. If the patterns were sufficiently confusing, the submarine gunner—aiming through a periscope, often in rough seas, from a distance of about a half mile—could never be sure of the course of the ship, its size, speed, or distance. To precisely determine the course and the speed was critical, because the torpedo was not aimed directly at the ship, but was fired ahead of it. It had to lead its target.

In October of 1917, the British Admiralty decided to apply dazzle camouflage to all armed and unarmed merchant ships, and by nine months later, more than 2,300 British ships had been camouflaged by Wilkinson's method. There were moments when as many as 100 ships were being dazzle painted at one time in a single harbor. The effect was resplendent—it was, said one journalist, "like being in the middle of a floating art museum."

Meanwhile, Wilkinson was loaned to the U.S. to assist in organizing an American ship camouflage section. Its research division, located at the Eastman Kodak Company in Rochester, New York, consisted of a team of scientists, while a design division in Washington, D.C., was composed of artists. The person in charge of the Washington branch was Iowan Everett Warner, who was also Wilkin-

son's escort during his lecture tour at various American harbors about the purpose and application of dazzle painting.

Back in Washington, Warner assembled his team of camouflage artists, among them the marine painter Frederic Waugh, who produced an especially wonderful plan for dazzle painting the *Leviathan*, formerly the *Vaterland*, a large ocean liner captured from Germany by the U.S. and converted for use as a troopship. Like their British counterparts, the American camoufleurs applied dazzle patterns to miniature



The effectiveness of dazzle ship camouflage was determined by testing painted model ships in a periscope-equipped observation theater, shown here.

U.S. NAVY DEPARTMENT PHOTOGRAPH, NATIONAL ARCHIVES AND RECORD SERVICE, C. 1918



A splendid example of dazzle camouflage churns through the North Sea in September 1918. In this official U.S. Expeditionary Forces photograph, the H.M.S. *Vampire* circles the U.S.S. *Shawmut* with a smoke screen.

wooden models, tested the models in a periscope-equipped observation theater, and prepared instructions for painting the ships.

In the final eight months of World War I, more than 1,200 American ships were painted with dazzle patterns produced by Warner's team of artists. Many of these were variations on British designs, but hundreds of others were totally new, and some were quite different from Wilkinson's schemes. The difference was the result of an ingenious method, developed by Warner, in which new dazzle designs were created by arranging colored wooden blocks (often in reversed perspective) at an oblique angle against the side of a ship model, then converting that arrangement to a flat painted pattern.

Born only two years apart, both Sherry Fry and Everett Warner died in their mid-80s. Grant Wood was younger by more than a decade and died of cancer at age 50. Because of the unique circumstances of World War I, all three Iowa-born artists made contributions to military camouflage. Despite their shared mid-

western roots, their training at the Académie Julian in Paris, and the commonality of their profession, it is uncertain if they were acquainted, although Fry and Warner undoubtedly knew about the celebrity of Wood, who became an overnight sensation in 1930, when his painting *American Gothic* was shown at the Art Institute of Chicago.

By comparison with Wood, the fortunes of Fry and Warner were slight. Fry remained a sculptor throughout his long life, working out of his studio in Roxbury, Connecticut, but his artistic reputation faded after World War I, and his work is completely forgotten today. Meanwhile, Warner became a professor of art at the Carnegie Institute of Technology in 1924, where his division head was none other than Homer Saint-Gaudens, Fry's former commanding officer, who had led the American Camouflage Corps during World War I.

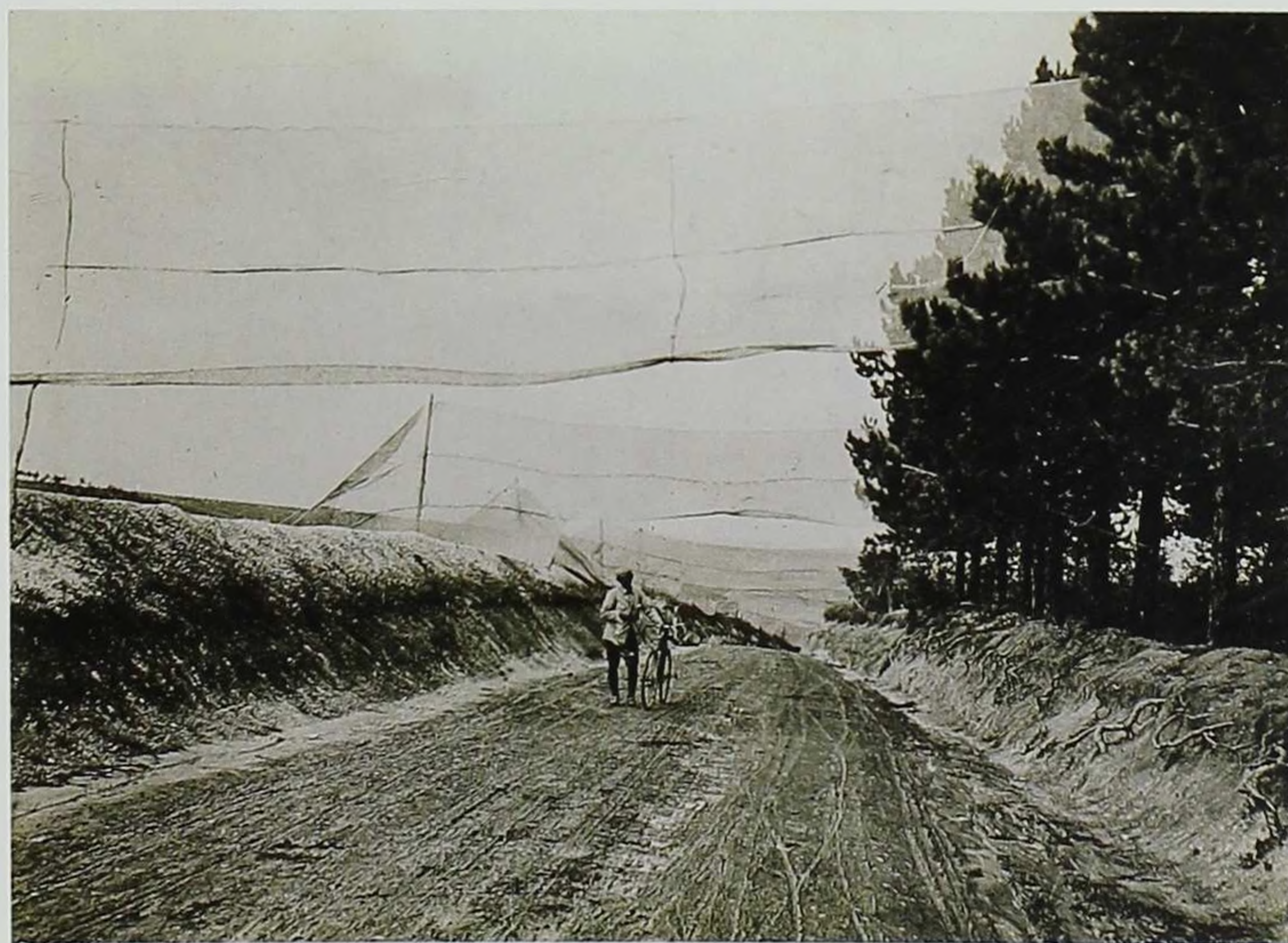
And what about Abbott Thayer's contention that art and camouflage are inherently related? In 1933, that idea was reiterated by Gertrude Stein, the American expatriate writer who created disruptive, irregular shapes with words. (Stein's closest friends, incidentally, included two other Iowans: William Cook, a

painter from Independence, who taught her to drive so she could volunteer as an ambulance driver during World War I, and *New York Times* music critic Carl Van Vechten, from Cedar Rapids, who became her literary executor.) In Stein's autobiography, there is an unforgettable passage in which she recalls her impressions when she drove out to look at the trenches at the end of the war: "Another thing that interested us enormously was how different the camouflage of the French looked from the camouflage of the Germans, and then once we came across some very very neat camouflage and it was American. The idea was the same but as after all it was different nationalities who did it the difference was inevitable. The color schemes were different, the designs were different, the way of placing them was different, it made plain the whole theory of art and its inevitability." ❖

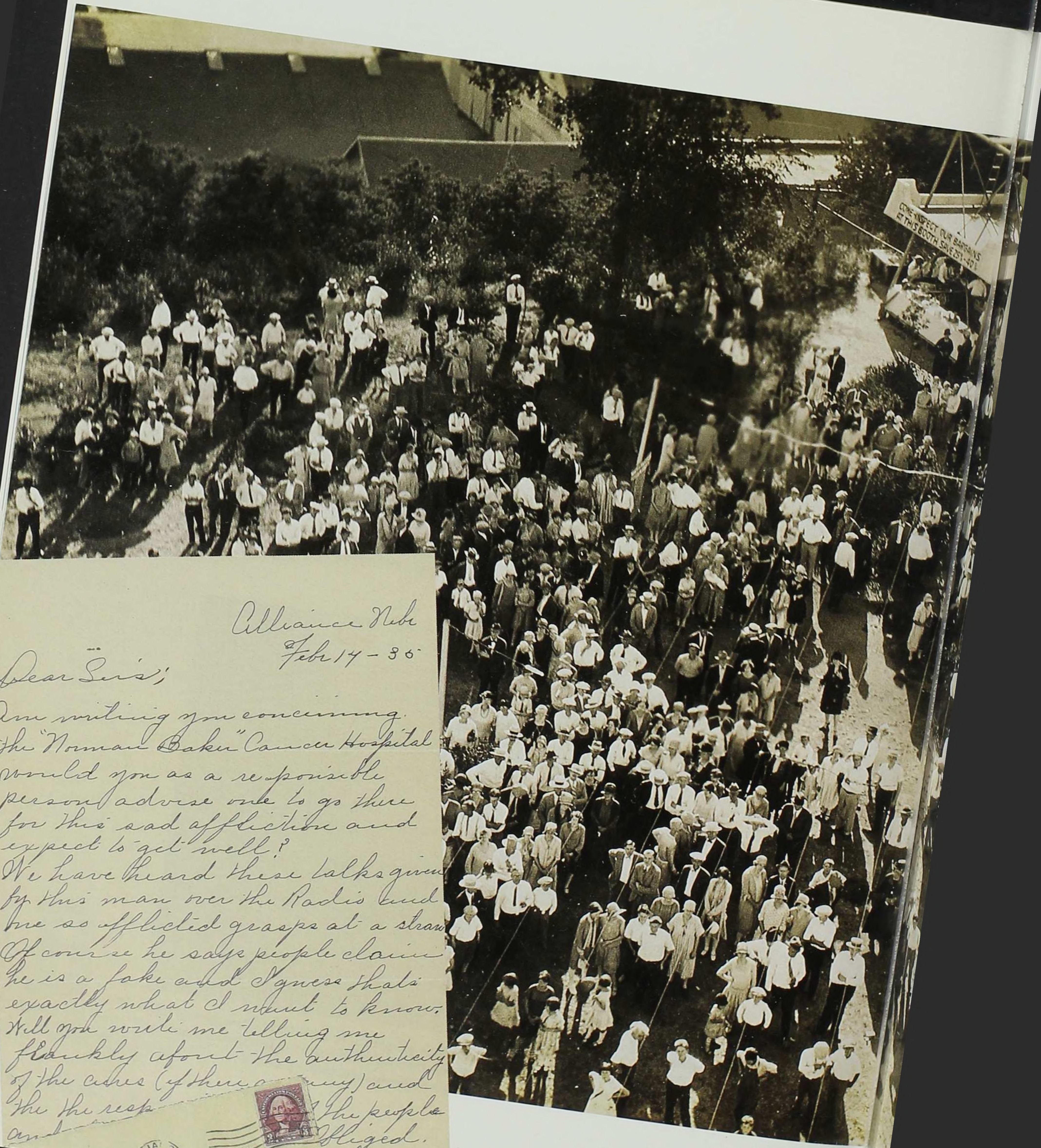
Roy R. Behrens is a professor of art at the University of Northern Iowa, and contributing editor of *PRINT* magazine (New York). In 1995, he received the McKay Award for Outstanding Research, and, in 1996, the Board of Regents Award for Faculty Excellence.

NOTE ON SOURCES

This research was partly supported by funding from the College of Humanities and Fine Arts and the Graduate College at the University of Northern Iowa. Regarding Sherry Fry, see Barry Faulkner, *Sketches from an Artist's Life* (Dublin, NH: William L. Bauhan, 1973); unpublished accounts by Faulkner at the Historical Society of Cheshire County in Keane, New Hampshire; and entry on Fry in Zenobia B. Ness and Louise Orwig, comps., *Iowa Artists of the First Hundred Years* (Des Moines: Wallace-Homestead, 1939), pp. 78-79. Grant Wood's military service is described in Darrell Garwood, *Artist in Iowa: A Life of Grant Wood* (New York: W.W. Norton, 1944). Everett Warner recalls his involvement with ship camouflage in "The Science of Marine Camouflage Design" in *Transactions of the Illuminating Engineering Society* (July 21, 1919, pp. 215-19) and "Fooling the Iron Fish: The Inside Story of Marine Camouflage" in *Everybody's Magazine* (Nov. 1919, pp. 102-9). Overviews of the historical link between art and camouflage include Roy R. Behrens, *Art and Camouflage: Concealment and Deception in Nature, Art and War* (Cedar Falls: North American Review and University of Northern Iowa, 1981), and "Camouflage" in Jane Turner, ed., *The Dictionary of Art* (London and New York: Grove Dictionaries, 1996); Guy Hartcup, *Camouflage: A History of Concealment and Deception in War* (New York: Charles Scribner's Sons, 1980); Elizabeth Louise Kahn, *The Neglected Majority: Les Camoufleurs, Art History, and World War I* (Lanham, MD: University Press of America, 1984); Tim Newark, et al., *Brassey's Book of Camouflage* (Herndon, VA: Brassey's Inc., 1996); and Seymour Reit, *Masquerade: The Amazing Camouflage Deceptions of World War II* (New York: Hawthorn, 1978). Complete annotations are held in *Iowa Heritage Illustrated* production files (State Historical Society of Iowa, Iowa City).



A lone bicyclist pauses on a truck route in eastern France. Above him, brown burlap draperies are loosely and irregularly stretched across the road, to simulate passing clouds and obscure the route from aerial observation by the enemy.



Alliance Neb
Feb 14 - 35

Dear Sirs;

Am writing you concerning
the "Norman Baker" Cancer Hospital
would you as a responsible
person advise me to go there
for this sad affliction and
expect to get well?

We have heard these talks given
by this man over the Radio and
we so afflicted grasps at a straw
Of course he says people claim
he is a fake and I guess that's
exactly what I want to know.
Will you write me telling me
flankly about the authenticity
of the cures (if there are any) and
the the resp



LLIA
FEB 23 1935
P.M.

The people
obliged,
Shuman
(over)

Demagoguery in the Corn Belt



Iowa's Norman Baker

by Eric Juhnke

On May 12, 1930, Muscatine, Iowa, swelled to twice its normal population of 17,000. People swarmed to the Mississippi river town to witness Norman Baker's sensational medical triumph. Months before, Baker had electrified listeners of his radio station KTNT (an acronym for "Know the Naked Truth") with the claim that he had cured the dreaded scourge of cancer at his Baker Institute in Muscatine. At Baker's request, KTNT listeners from as far away as Kansas City flocked to Muscatine for an open-air demonstration of his medical breakthrough.

Those who expected a good show were not disappointed. During the evening the charismatic 47-year-old entrepreneur, clad in trademark white suit and lavender tie, directed awe-inspiring medical theatrics and a parade of former patients who gave stirring testimonials to his powers. For the finale, a Baker surgeon removed the scalp and part of the skull of pa-

Norman Baker's radio shows attracted large crowds eager for entertainment (as in this 1930 photo outside his station KTNT), and his hospital attracted cancer patients eager for a cure. The letter-writer asks the Muscatine Chamber of Commerce about "the authenticity of the cures" since "one so afflicted grasps at a straw."

LETTER AND BOTH PHOTOS FROM MUSCATINE ART CENTER, MUSCATINE, IOWA



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 would you as a responsible
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 for this "bad affliction" and
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 who are using the "straw"
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Alvanice Mink
 Feb 14 - 36

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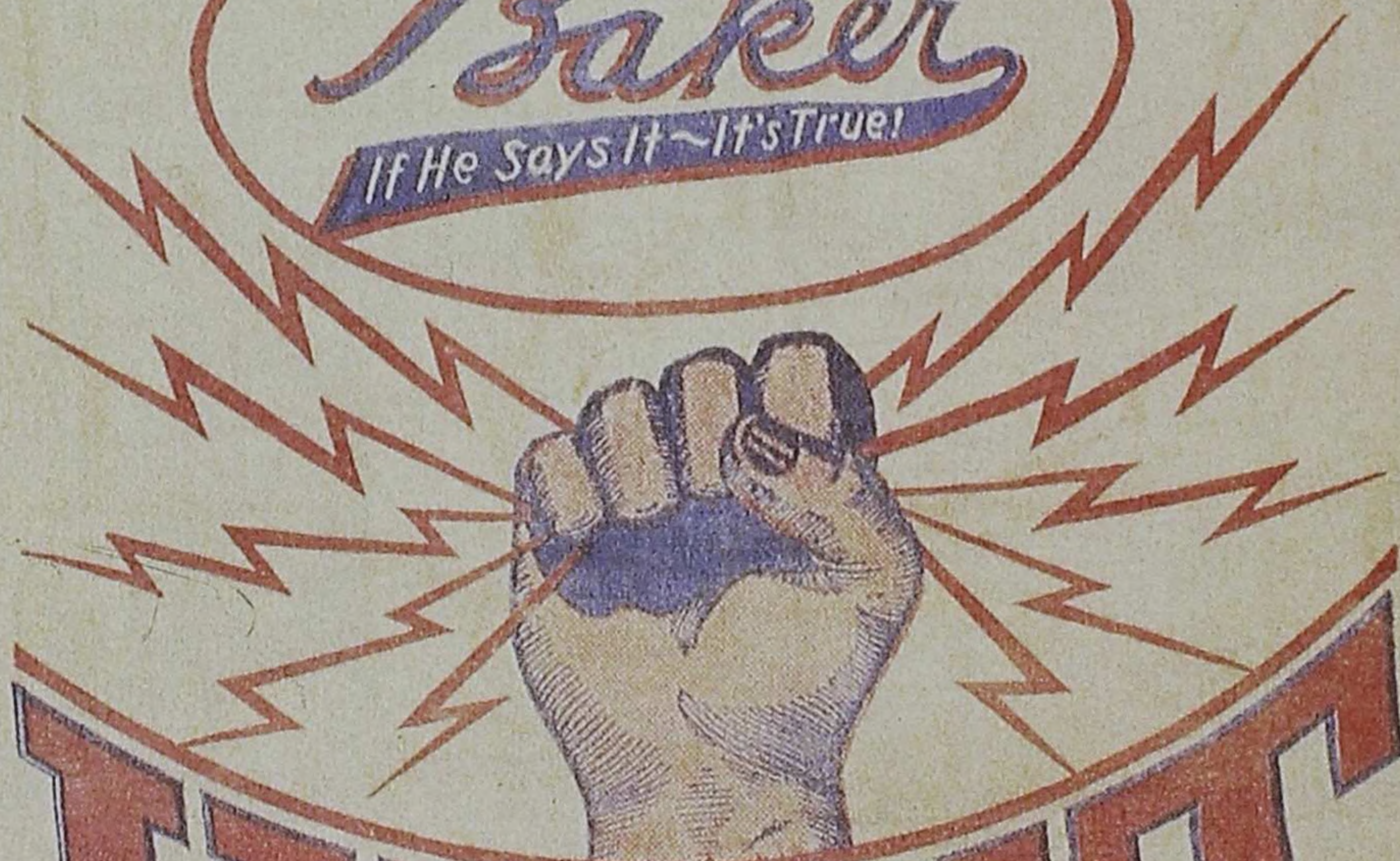
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CHASE BAG CO.
MUSCATINE, IOWA

Norman Baker
If He Says It - It's True!

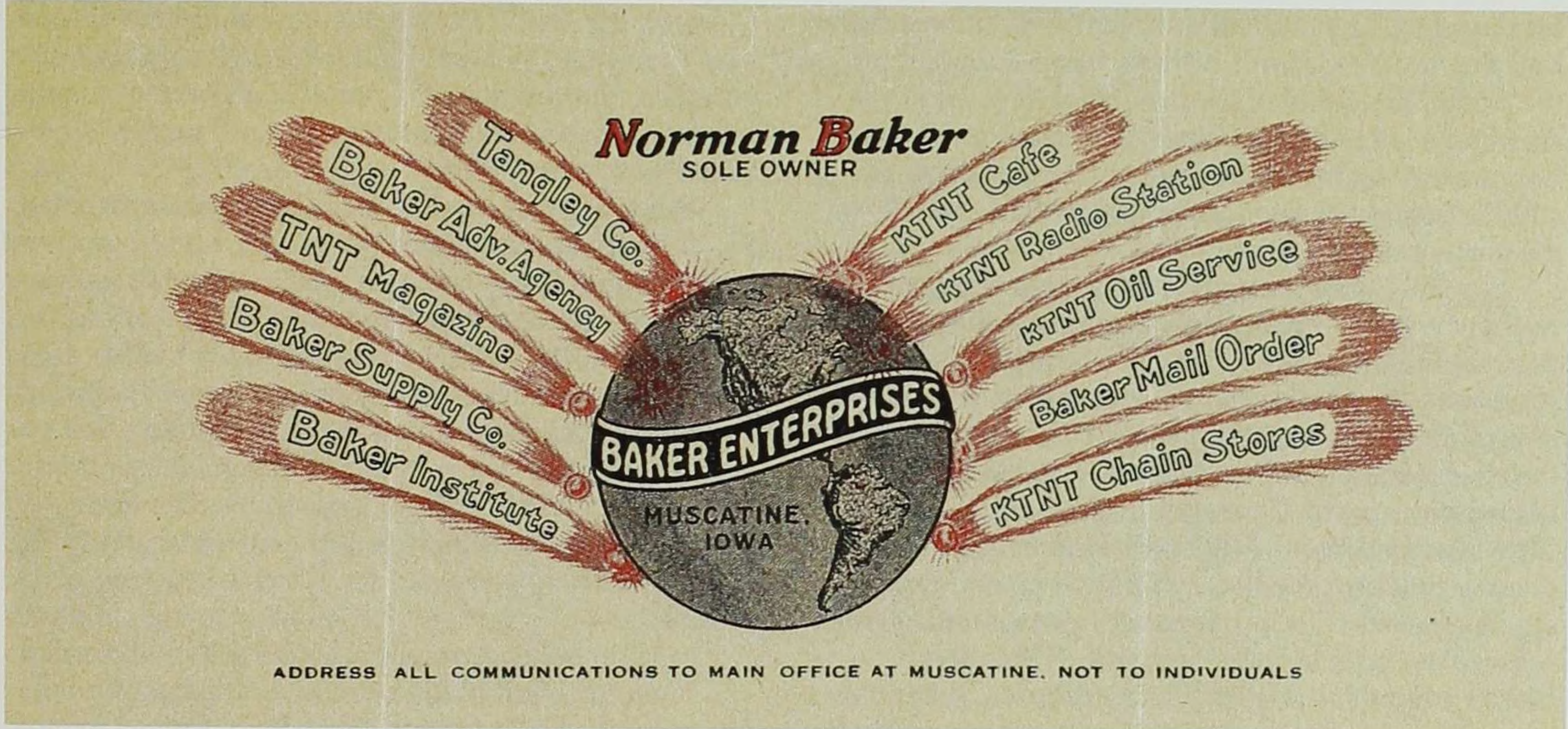


K-T-N-T

Highest Quality Hard Wheat
- FLOUR -

Manufactured Expressly For
NORMAN BAKER
MUSCATINE, IOWA.

WHEN ORDERED PACKED BLEACHED
K. T. N. T.



A natural self-promoter, Norman Baker put his name on everything, from flour sacks (opposite) to a range of mail-order products and businesses, shown here on his letterhead stationery.

tient Mandus Johnson, exposing what appeared to be his cancerous brain tissue. The 68-year-old Illinois farmer sat awake in a chair as the surgeon administered Baker's special powder and carefully replaced his scalp. "This man is cured of cancer," Baker proclaimed triumphantly.

Before sending the crowd home, Baker delivered a rousing speech lambasting the "medical trust" for discrediting his cancer cure in its own quest to retain a prosperous monopoly on all treatment. He assured the crowd he would stand pat against the evils of organized medicine, and remain in the "fight for humanity to the finish."

Five years before this extravaganza, Baker had first made a name for himself as a radio station owner and broadcaster in Muscatine. His daily broadcasts interspersed direct advertising for his booming mail-order business with fiery attacks against Wall Street, big business, and organized medicine. Revitalizing performance skills he had developed as a vaudeville magician in the early 1900s, Baker perfected a populist message that attracted many farmers and rural Americans who came to see him as a crusader against the evils of urban industrial society.

Baker was one of many rural demagogues, politicians, and profiteers during the 1920s and 1930s who achieved prosperity and notoriety by feasting on the economic and cultural frustrations of middle

America. Their followers, wrote historian Caroline Bird, "were the salt of the earth . . . standing with pitchfork in front of their farms, their faces set against progress, Jews, foreigners, eastern bankers, new fangled nonsense, and of course sin." Throughout his Iowa career as a radio personality, medical charlatan, and political candidate, Baker would play the role of populist crusader for profit and fame.

Much of Baker's success hinged on his ability to tap into problems that had been plaguing Iowans for years. The so-called "Golden Age" of agriculture during the first two decades of the 20th century had reached its zenith as the market expanded during World War I. By 1921 the market had dried up and the boom was over. For example, the collapse of the foreign market after the war had a pronounced effect on Iowa's hog industry. Pork exports fell from 24 percent of total production in 1919 to a minuscule 6 percent in 1926. Corn production fared little better. In 1921 corn prices fell to the lowest yearly average in 20 years. Land values felt the crunch as well. Between 1920 and 1925 alone, Iowa land depreciated by \$2.5 billion. Overall, the 1920s saw Iowa farmers' gross income drop 30 to 50 percent.

The poor economic climate changed the nature of

rural society. The 1920 census recorded that, for the first time in the nation's history, fewer than half of the population resided in rural villages or on farms. America's love affair with rural culture was dying. Lured away by the excitement and opportunity of city life, droves of farmers traded in their overalls for the garb of urban society.

Not only were many Americans rejecting rural residency, they were repudiating rural values as well. Popular literary works of the day reflected urban America's disdain for the village culture. Renowned Baltimore writer and literary critic H.L. Mencken led the charge in debunking America's sacrosanct agrarian image as myth. Throughout his scathing essay "The Husbandman," Mencken slandered farmers as unconscionably greedy, inherently lazy, and culturally backward. "There has never been a time, in good seasons or bad," Mencken harped, "when the farmer's hands were not itching for more; there has never been a time when he was not ready to support any charlatan, however grotesque, who promised to get it for him. . . . Let the farmer . . . be damned forever more."

The rural depression that existed amidst urban prosperity spurred Iowa farmers to lash out against the city as the evil benefactor of agriculture's misery. Economically devastated and culturally disdained, many came to identify with KTNT's self-acclaimed rural crusader, Norman Baker.

The development of radio was integral to Baker's catapult to regional prominence. Even though still in its formative years, radio offered an excellent medium by which demagogues could satisfy their cravings of power, profit, and fame. According to historian Gerald Carson, the airwaves of the 1920s were inundated with "fortunetellers, face lifters, painless dentists, . . . and a noisome collection of hate vendors, who scraped a living out of baiting the Jews and Wall Street." Understandably, the early years of radio were hospitable to the flowering of several demagogues: Father Charles Coughlin, Dr. John R. Brinkley, and Huey Long all utilized radio broadcasting to spread their messages. An aspiring radical demagogue himself, Baker too rushed to tap into the abundant opportunities radio offered.

Baker had already established himself as a successful businessman well before the inception of commercial radio in 1920. After ten years on the vaudeville circuit and a failed marriage, he returned home

to Muscatine in 1914 to begin a profitable career as a machinist and inventor. By the late 1910s, his patented air "Calliaphone," a portable organ instrument run on air pressure, reportedly grossed nearly \$200,000 in a single year.

Other ventures realized similar success. Although Baker freely admitted that he "couldn't paint to save his life," aggressive marketing helped his correspondence art school receive a reported \$75,000 over a three-year span. Customer requests for picture frames, photo enlargements, and art supplies sparked a mail-order enterprise that would eventually sell everything from coffee to overalls. Intrigued by nursery seed salesman Henry Field's use of his Shenandoah, Iowa, radio station KFNF to sell mail-order products, Baker quickly appreciated the advertising prospects of radio.

In 1924, Baker approached Muscatine's Chamber of Commerce with plans to build a radio station. In return for free utilities and taxes, he promised to "lift Muscatine from being a little burg lost in the Mississippi cornfields, to a city the whole world knows about." Unsuspecting of the notoriety Baker's radio station would eventually bring to Muscatine, the chamber consented, thus clearing the way for the construction of KTNT.

Starting a radio station proved a difficult task. As Baker laid plans for KTNT, private magnate corporations still exercised full control over the radio industry. The federal government would not begin to regulate radio affairs until the passage of the Radio Act in 1927. Until then, America's corporate giants of communication had carved up the infant radio industry, with each company getting a piece of the pie. The "Big Five" (General Electric, Radio Corporation of America, Westinghouse, Western Electric, and American Telephone and Telegraph) monopolized the radio industry by controlling the licensing for patent rights of vital radio equipment, such as transmitters and vacuum tubes.

Forced to comply with the radio pool's licensing requirements, Baker's high hopes for a radio station turned to frustration and disgust. With transmitters, wiring hook-ups, transmitting tubes, and microphones all protected by magnate patent rights, Baker faced thousands of dollars in unforeseen expenses. Not one to give in easily, Baker escaped some of the costs by building his own operating equipment. Still ignoring his request for a license, the American Telephone and Telegraph Company urged Baker to purchase time from Davenport's station WOC, owned and operated by chiropractor B.J. Palmer. Rejecting

this offer, Baker traveled to the 1925 Radio Conference in Washington, D.C., and berated the communication giants in person. Speaking before the conference audience, he likened the radio trust to a "giant octopus" that threatened an "end to freedom of the air." With the aid of a handful of midwestern congressmen, including his friend Senator Smith Wildman Brookhart of Iowa, who pleaded KTNT's case in Washington, Baker finally received a radio license. KTNT's first broadcast aired on Thanksgiving Day 1925.

Baker's crusade for freedom of the airwaves appealed to rural frustrations with urban society. He denounced guidelines that allowed urban chain stations extra wattage power and frequency space, arguing that such practices drowned out smaller stations like KTNT, forcing them out of business. In an early broadcast, Baker asserted that radio

officials had ridiculed his dream of establishing a station in "the wilds of Iowa." But rural underdog that he was, Baker ignored his urban critics and announced that he would make KTNT "the most popular station in the United States." He assured listeners that KTNT would provide the "honest-to-goodness" small-town radio they craved as opposed to the "monotonous and highbrow" programming common with large city stations.

Wanting a station name with recognition and flair, Baker had secured call letters "KTNT." The acronym served a dual purpose. "KTNT" suggested both the veracity of Baker's "Naked Truth" broadcasts as well as their dynamite explosiveness. Constructed in Spanish-style architecture, Baker's station stood majestically on a high bluff known as KTNT Hill, overlooking Muscatine to its west and the Mississippi to its east. Although originally licensed for a 500-watt transmitter, KTNT regularly broadcast at the 10,000-watt range. When the inspectors came, remembered former KTNT announcer Adam Reinemund, the en-

COURTESY OF MAX CHURCHILL



On Baker's station KTNT, the words "courage" and "ambition" flank the phrase "to my mother" (to whom Baker was devoted). The concession stand under the tower beckons customers to "come on over" for ice cream and cool drinks.

gineer atop KTNT Hill would spot their car at the "head of the driveway." "By the time the fellows got up there, the dials were all registering 500 watts."

In 1931 the Federal Radio Commission (FRC) estimated that Baker's broadcasts reached an estimated one million listeners within a 100-mile radius of Muscatine. However, the reach of KTNT actually extended much further. Listeners from as far as Pennsylvania, Manitoba, and in one long-distance reception contest, even Hawaii, could reportedly tune in KTNT broadcasts on their radio sets.

Baker's flamboyant style contributed to his radio appeal. Although his formal education had ended as a sophomore in high school, years as a vaudeville performer had honed his speaking abilities and performance skills. Baker was a "dynamic and powerful speaker," remembered Reinemund. Catering to a predominantly rural audience, Baker scheduled his daily talks over the supper hour when farmers would be in from the fields. Starting at 6:00 p.m., Reinemund took to the microphone and set the stage for Baker's talk.

"I was a past master of building the great Norman Baker," recalled Reinemund. He reminded farmers that Baker "saved them money" and "protected" them from the evils of urban society.

"I'd build him up," Reinemund said, "and at the proper moment, Norman would come in: 'Good evening my friends,' and then we'd go."

In 1928 Baker used KTNT programming to campaign for Republican presidential nominee and former Iowan Herbert Hoover. Hoover's challenger, Alfred Smith, represented the perfect target for Baker's populist rhetoric. With his New York City Tammany Hall background, Irish Catholic heritage, and pro-alcohol views, Smith stirred rural emotions and prejudices against urban society to new heights. On the other hand, Hoover, an Iowa native, established his image as a farm boy "steeped in the traditions of rural America." According to historian William E. Leuchtenburg, the 1928 campaign "reflected deep antagonism between rural and urban America which went beyond any single issue."

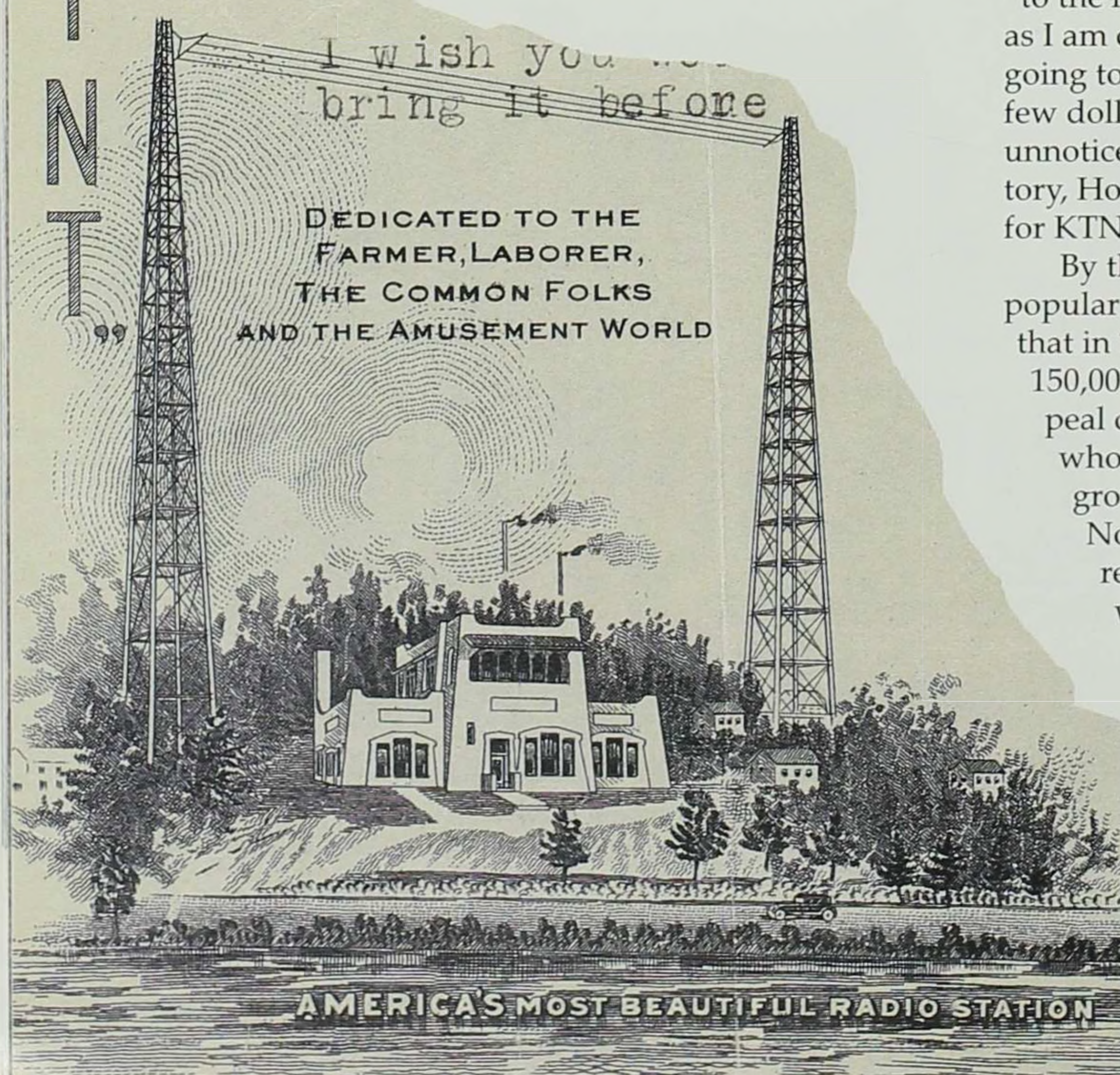
Playing on common rural midwestern prejudices against Smith, Baker's KTNT broadcasts maligned the New Yorker's Catholicism, Irish-immigrant heritage, and Tammany Hall connection. Baker's remarks hastened a sharp telegram from the Democratic Party's radio advertising agency: "MANY COMPLAINTS RECEIVED DEMOCRATIC NATIONAL COMMITTEE RE INTOLERANT RELIGIOUS PROPAGANDA EMANATING FROM YOUR STATION AGAINST SMITH REPETITION OF SUCH SUBJECT MATTER GROUND FOR CANCELLATION REMAINING FARM NETWORK PROGRAMS."

Not intimidated, Baker proudly sent Hoover a copy of the telegram and considered it a compliment "to the force and power of KTNT." "Bedamned as far as I am concerned," Baker assured Hoover, "no one is going to bluff me into the silencing of my station for a few dollars of advertising." Baker's efforts did not go unnoticed by Hoover. After his November 6th victory, Hoover cabled Baker to express his appreciation for KTNT's support.

By the late 1920s, KTNT stood as one of the most popular radio stations in the Midwest. Baker boasted that in 1927 alone KTNT had received roughly 150,000 fan letters. Tangible evidence of Baker's appeal could be seen in the crowds of area listeners who converged at Muscatine to picnic on KTNT grounds during summer Sundays and holidays. Normal crowds of 5,000 to 10,000 ballooned to a reported 50,000 one spring Sunday in 1930. "It was terrific," remembered Reinemund, "you

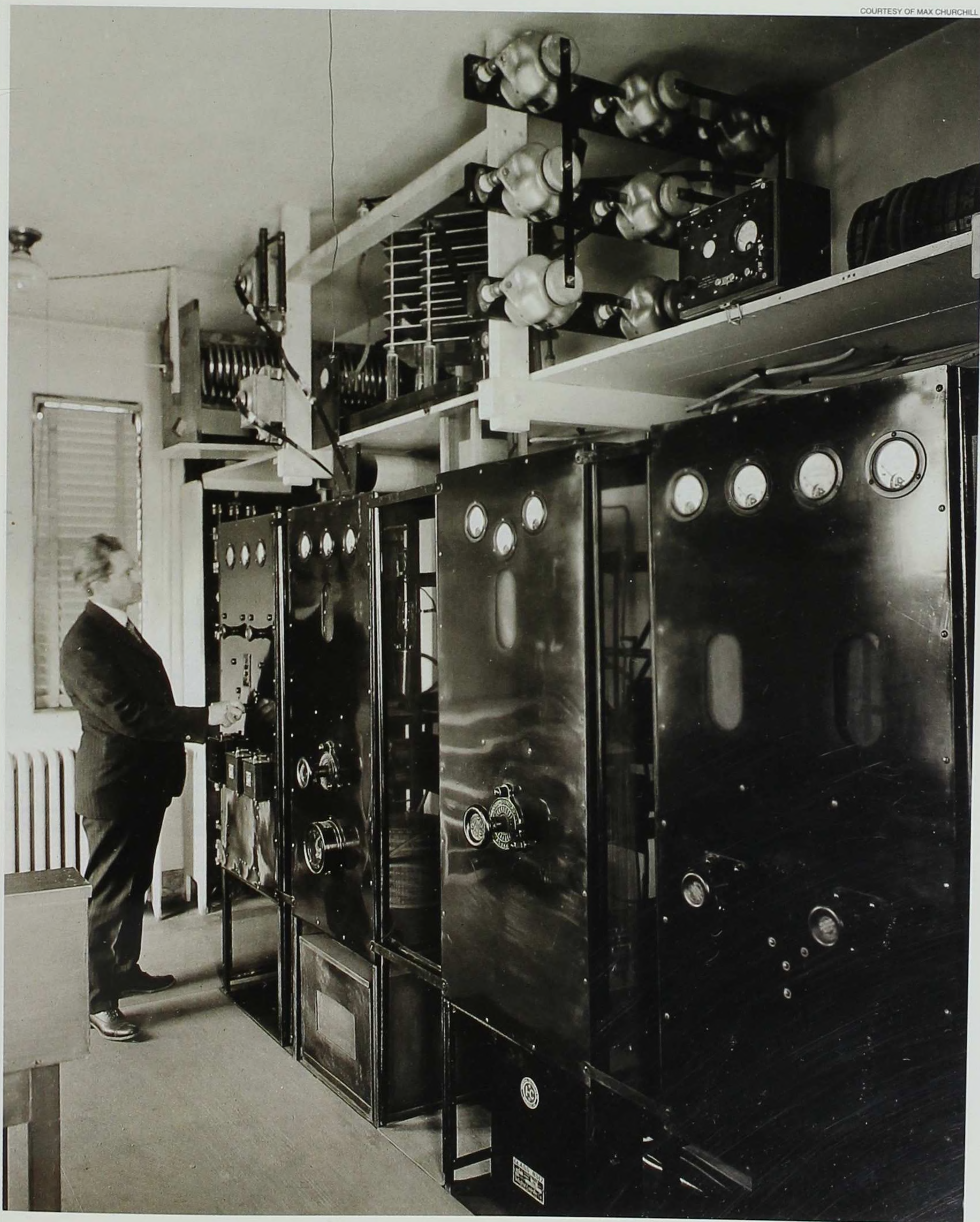
Stationery for KTNT attests to Baker's goals of winning over the populace by dedicating the station to "the farmer, laborer, the common folks and the amusement world." Right: Baker checks a transmitter in a 1925 photo.

KTNT



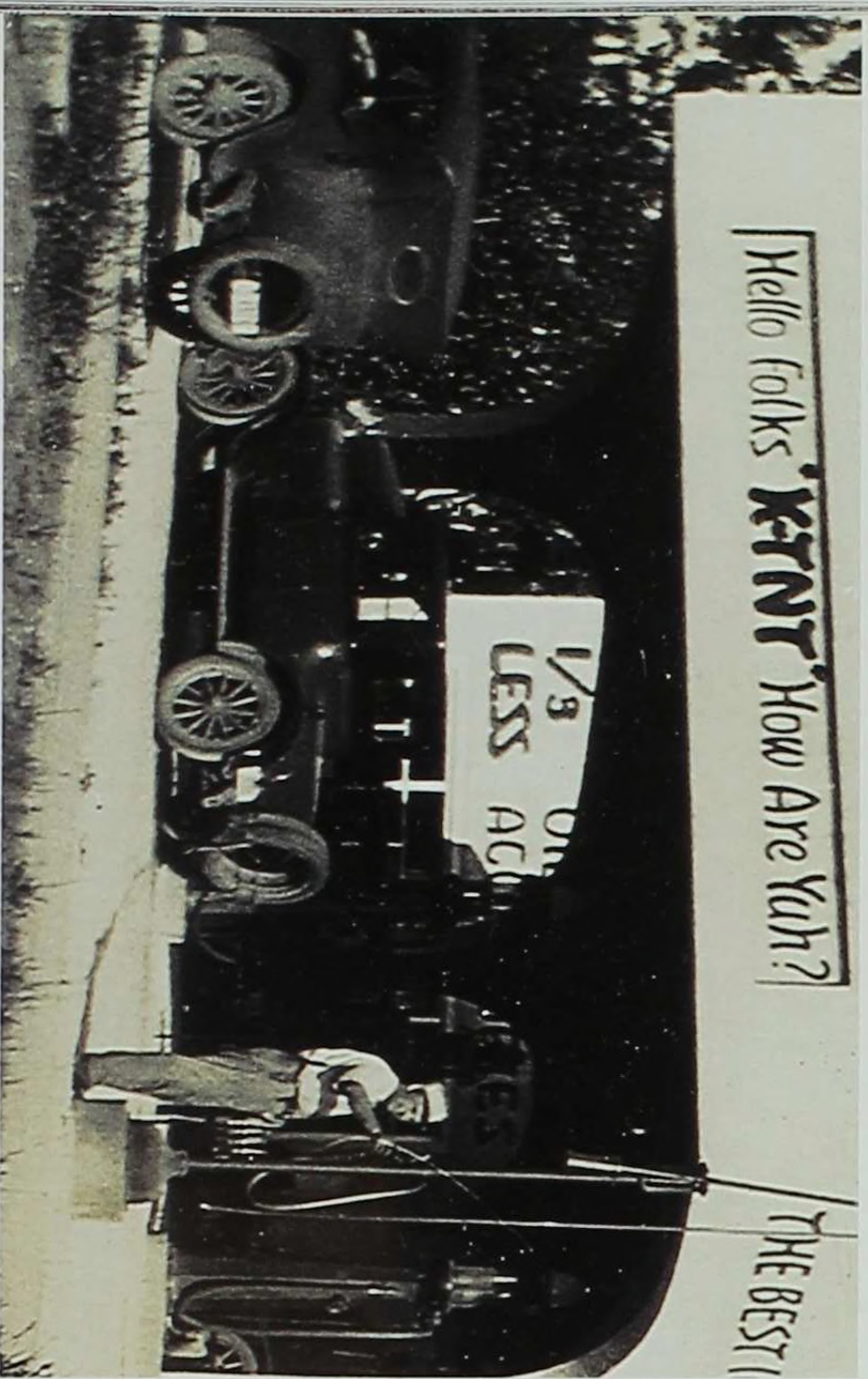
MUSCATINE ART CENTER

COURTESY OF MAX CHURCHILL

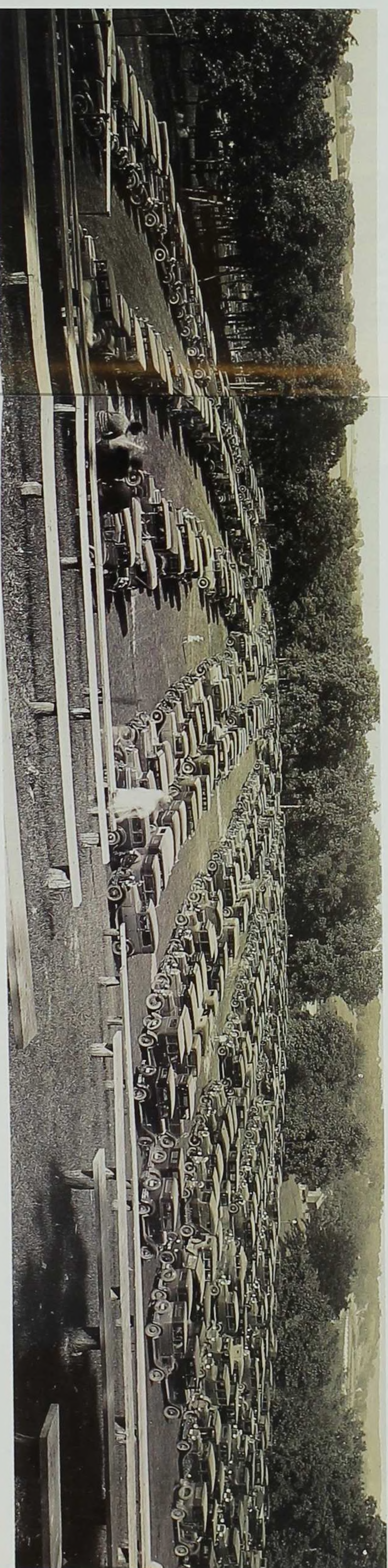




THREE PHOTOS THIS PAGE COURTESY OF MAX GRIFFITH



Although not a pianist, Baker poses with a singer in a KNTNT studio. Below: Motorists at outdoor shows could purchase gas at Baker's station (left).



couldn't fight your way through town—the crowds were so tremendous." People came from miles around to see Baker and experience the carnival-like atmosphere on KNTNT Hill. As the crowds arrived, he moved KNTNT's broadcasting equipment outside so he could interact with the people. In between Baker's radio talks, KNTNT's troop of comedians and musicians performed live to the enjoyment of those in attendance, as well as listeners at home. Attesting to KNTNT's popularity "with the farmers of the Middle West" in 1928, Iowa City Republican leader Jerry Plum informed Hoover's secretary that nine states had been represented at one of Baker's picnics.

Baker gleefully anticipated the economic windfall afforded by the large KNTNT crowds. Always an opportunist, he catered to visitors with his KNTNT chain store, souvenirs, restaurant, excursion boat, and gas station, which advertised the cheapest prices in town. According to Reinemund, such enterprises netted Baker \$3,000 on an average summer Sunday.

As the crowds rolled in, Baker's charged rhetoric reached new heights. "Learn to love the constructive Radical," Baker instructed his listeners in 1925. But even as his audiences grew, people began to criticize Baker's daily broadcasts, which spewed brash language and personal invective in various directions. His targets frequently included local business competitors, unsympathetic newspapers, and all practitioners of conventional medicine.



MASCOTINE ART CENTER

Many of the Great Depression and eager for amusement, Iowans (above) flocked by the thousands to KNTNT's outdoor broadcasts, where they could enjoy entertainers set up on an outdoor stage on the KNTNT grounds.



THREE PHOTOS THIS PAGE COURTESY OF MAX CHURCHILL

Although not a pianist, Baker poses with a singer in a KTNT studio. Below: Motorists at outdoor shows could purchase gas at Baker's station (left).



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Weary of the Great Depression and eager for amusement, Iowans (above) flocked by the thousands to KTNT's outdoor broadcasts, where they could enjoy entertainers set up on an outdoor stage on the KTNT grounds.





Doctors,
Nurses,
Employees
BA *Key*
Institute.
Muscatine, Ia.

MUSCATINE ART CENTER

In one broadcast Baker accused the *Muscatine Journal's* editors of "visit[ing] other men's wives," and implored listeners to cancel their subscriptions to the newspaper. He referred to the State University of Iowa hospital as a "slaughterhouse," and labeled Iowa's Director of Health Investigation a philanderer, "lower than a rattle snake" and "worse than a yellow dog." For a time he even berated Muscatine's Parent Teacher Association as a Communist organization.

His remarks sparked a flurry of complaints to Hoover, as Secretary of Commerce, and to the FRC. "No one escapes his tongue," complained one listener. Fed up with Baker's incessant tirades, another Muscatine resident pleaded with Hoover for "some kind of relief from our present affliction."

Criticisms of KTNT increased in 1929 as Baker used the radio to promote his claims of a cancer cure. In April 1930 the American Medical Association (AMA) called upon the FRC to take action against Baker's KTNT and station KFKB, owned and operated by Kansas goat-gland charlatan John R. Brinkley. "The Federal Radio Commission must be depended on by people in other states to spare them the possibility of hearing the obscene mouthing and pernicious promotions that are broadcast by the sta-

tions that these quacks dominate," wrote Dr. Morris Fishbein, editor of the *Journal of the American Medical Association (JAMA)*. "If these authoritative bodies do not function for the good for the people, our government must find some system that will." Spurred by such condemnation, the FRC began investigating Baker and KTNT.

After months of monitoring Baker's broadcasting, the FRC felt it had grounds to deny KTNT's application for licensing renewal in the spring of 1931. Summing up his case against KTNT, the chief examiner for the FRC stated, "Since the home is the principal listening post in the broad field of radio reception, nothing which tends to vulgarity, immorality, or indecency has any place in radio communications." On May 13, 1931, the FRC officially refused KTNT's license renewal, forcing Baker off the air a month later. Irrevocably damaged by the closing of KTNT, Baker never again realized the popularity he had found behind the microphone. However, he would continually find other means to keep himself in the limelight.

For two years before the closing of KTNT, Baker had capitalized on the financial possibilities of cancer treatment. While searching for a sensational story to print in his new magazine, *TNT*, Baker settled upon an investigative report on the cancer cure offered at the Charles Ozias Cancer Clinic of Kansas City, Missouri. Baker and *TNT's* editing staff selected five patients to test the Ozias treatment. After reportedly witnessing miraculous recoveries in all five cases, *TNT* printed its findings and announced that Baker's new cancer-cure hospital, the Baker Institute, would use a perfected form of the Ozias treatment.

In December 1929 *TNT* advertised that cancer was now "curable without operation, radium, or x-ray" at Baker's hospital in Muscatine. Treatments involved "secret and special exclusive" cures for cancer and other medical problems ranging from tuberculosis to constipation. The hospital provided roughly a hundred beds and a staff of chiropractors and diploma-mill M.D.'s advertised as "masters of their chosen profession."

Boosted by advertising in his own radio programs, magazine, and daily newspaper, *Midwest Free Press*, Baker's cancer-cure business boomed. Following two open-air demonstrations in May 1930, the Baker Institute overflowed with new patients, who crowded the steps each morning clinging to the hope

MUSCATINE ART CENTER



Hospital staff pose (opposite) at the Baker Institute. Above, another view of Baker's hospital, where cancer patients came for his "secret and special exclusive" cures.

of Baker's promises. Much to the prospective patients' dismay, \$10 examinations invariably revealed the worst-case diagnosis. With charges as high as \$1,000 per treatment, the hospital's monthly income soon exceeded \$75,000.

As the institute's clientele grew, so too did the number of dissatisfied patients and health officials who wrote letters alerting the AMA to Baker's operation. "You can understand [that Baker] is poisoning the mind of the public and is certainly a menace to progressive health measures," stated the Muscatine County Medical Society in April 1930. "It seems perfectly proper to me that the medical profession should make the initial move to put this criminal faker out of business," wrote another doctor in 1931, whose patient had died shortly after returning from Baker's hospital.

In the spring of 1930, following its own investigation into the Baker Institute, the AMA responded. In April the *JAMA* began a series of articles exposing Baker's "lies, viciousness, and quackery." In one, the *JAMA* denounced Baker's famous "skull removal" demonstration as a hoax; the patient had never had cancer, as Baker contended, but instead suffered from osteomyelitis and inflammation of the outer skull. "What the gaping crowd saw at the 'demonstration' was not the man's brain," explained the *JAMA*, "but the medullary portion" of the man's skull.

In another article, the *JAMA* reported on a farmer who fortunately had sought a second opinion about a rash after Baker's doctors had diagnosed cancer, only to learn from the State University of Iowa College of Medicine that he was merely suffering from "Barber's Itch." Whereas Baker's doctors had prescribed a \$250 treatment and \$360 for six weeks of hospital care, the College of Medicine released the man after 12 days of treatment costing \$49.50. *JAMA's* criticisms of the Baker Institute were echoed in editorials printed in numerous Iowa newspapers, including the *Des Moines Register*, the *Cedar Rapids Gazette and Republican*, and the *Muscatine Journal*.

But Baker fought back. Refuting charges of self-interest, he portrayed himself as a heroic crusader for humanity. As he had with KTNT, Baker marshaled anti-trust sentiment to defend his cancer practice. He demanded to know why the AMA was intent on suppressing his cancer cure. To Baker the answer was obvious—money, since organized medicine stood to gain more profit for treatments than for cures. He estimated that AMA doctors profited \$180,000 annually from needless cancer operations, radium treatments, and x-rays. Physicians' opposition to his cure was un-

derstandable, Baker charged, since the loss of this profit would "flatten out their purses considerably." Do not forget, he added, "M.D. stands for 'More Dough.'"

From its headquarters in downtown Chicago, the AMA stood at the center of what Baker condemned as the "medical trust." Founded in 1847, the AMA had grown in stature and influence during the Progressive Era. By the mid-1920s, the AMA virtually dominated the medical profession, and their new *JAMA* editor, Morris Fishbein, had stepped up the journal's campaign against nostrums and quackery. Baker described the AMA as an octopus whose tentacles gripped the medical establishment in every state, county, and city. He claimed that the AMA's Council of Education brainwashed children into looking upon every orthodox doctor "as a god," and that its Council of Health Information Propaganda spread false information about treatments and drugs. Baker even accused school nurses of collusion by needlessly frightening children and parents into accepting dangerous vaccinations.

"My aim," Baker professed over KTNT, "is to bring humanity down to a point where you will not trust your life, body, and soul to some man just because he has studied for four years in a university." He assured his listeners that the Baker Institute had made more progress in medicine "than the whole State University, with all the educated doctors . . . in the last thirty years."

Such attacks on the medical trust aligned with a mainstream distrust of the educated urban elite. Why couldn't a person like Norman Baker discover a cure for cancer? asked one believer, adding that even "after years of medical education" medical doctors "still didn't know a positive cure for the common ordinary cold."

Baker's assaults against the AMA featured elements of anti-Semitism as well. For example, he resorted to anti-Semitic rhetoric in attacking Fishbein, a leading critic of the Baker Institute. In one KTNT broadcast Baker labeled Fishbein "the Jewish domi-

Baker's monthly magazine, *TNT*, repeatedly attacked the medical trust, and reiterated Baker's stand on other issues. The September 1930 issue (right) included a tear-out affidavit form requesting that KTNT be granted a permanent license. Readers were instructed to sign the form in front of a notary and mail it to the Federal Radio Commission.

Trademarks Nos. 261500 and 261822 registered U. S. Patent Office, May 25, 1929)

TNT

THE NAKED TRUTH



N. BAKER

PUBLICATION

Vol. 2

No. 6

Amazing Political Persecution

How a Radical Suspect Was Railed into a Madhouse Hell

The Medical Trust Exposed

How Lunacy Doctors and Politicians Doom the Sane to Asylums

Will Babies Save Hollywood?

Family Life Comes to Stage and Film Land

Cancer Failure of the Medics

Prominent Physician Unmasks False Medical Trust Practices

Outrageous Medical Persecution

Man and Wife Imprisoned for Refusal to Bow to Trust Law

The Truth About Insurance Graft

How Coolidge Was Used As Bait for Suckers

Tricks of Mediums Exposed

Spiritualist Recounts His Experiences

Are the Banks Causing Crime?

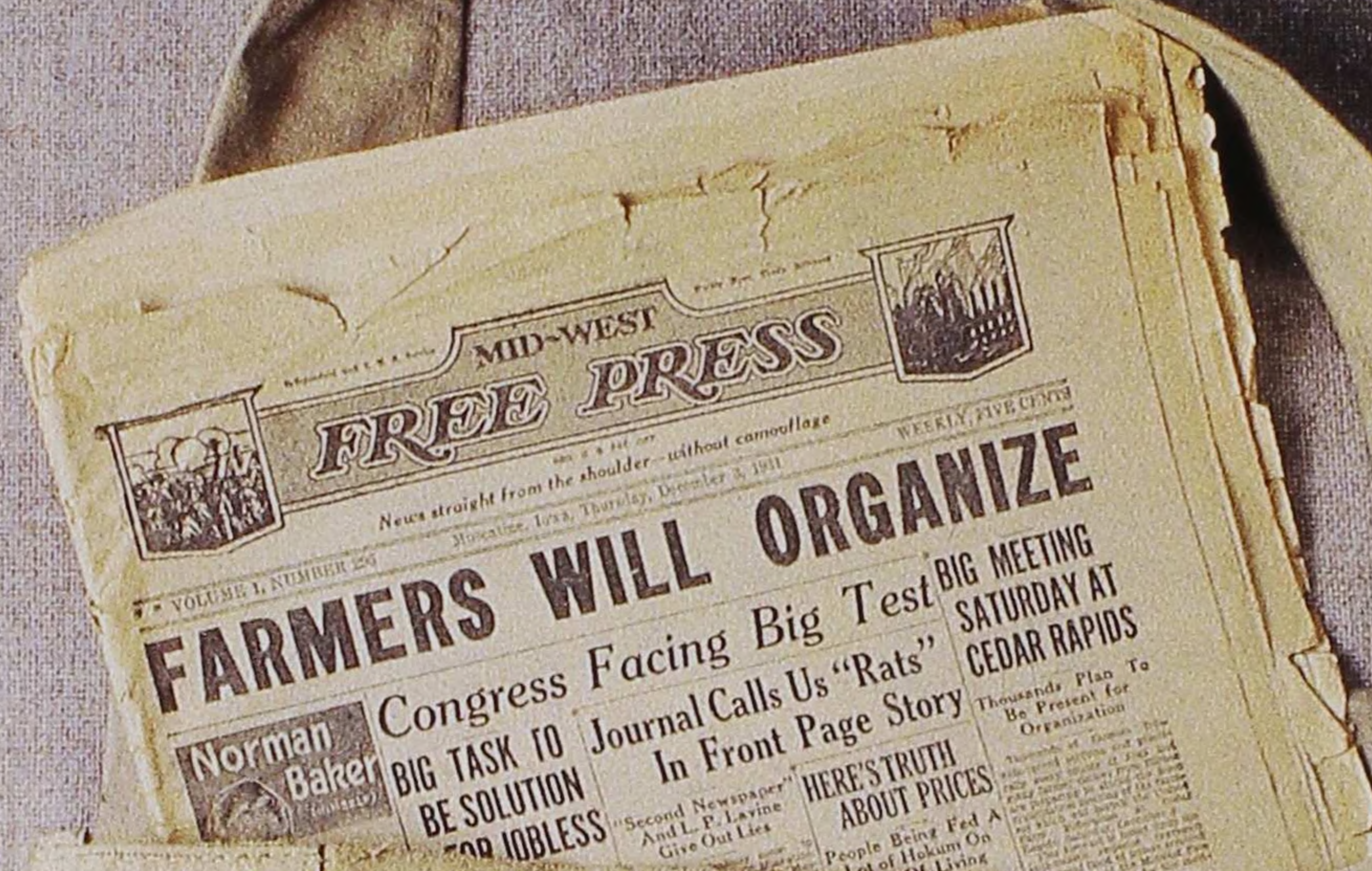
Continuing Our Symposium on Cause of Crime

Norman Baker's Page News As We See It

September
1930

"THE VOICE OF THE PUBLIC"

20c
the copy



MID-WEST FREE PRESS
 News straight from the shoulder—without camouflage
 Thursday, December 3, 1931
 VOLUME 1, NUMBER 256
 WEEKLY FIVE CENTS

FARMERS WILL ORGANIZE
 Congress Facing Big Test
Norman Baker
 BIG TASK TO BE SOLUTION FOR IOBLESS
 Journal Calls Us "Rats" In Front Page Story
 "Second Newspaper" And L. P. Lavine Give Out Lies
HERE'S TRUTH ABOUT PRICES
 People Being Fed A Lot of Hokum On Cost of Living
BIG MEETING SATURDAY AT CEDAR RAPIDS
 Thousands Plan To Be Present for Organization

MID WEST
FREE PRESS

nator of the medical trust of America." A week later he proclaimed that Fishbein's animosity towards the Baker Institute resulted from his "Jewish tendency [to] get mad at . . . anything they can't get a dime out of."

Baker also eroded the public's trust in the medical establishment by condemning preventive medicine. Isolated farmers, many of whom already abhorred industrial technology, questioned the necessity of new and often imperfect medical advances. Baker invoked horrific images of pedophilic physicians, asking KTNT listeners why doctors vaccinated young children in the leg rather than the arm. "Is it because they like to feel the legs of these innocent little girls?" suggested Baker. "Is it not a fact," he continued, "that many of these men use their profession as an excuse to fondle and gaze upon the nude parts of innocent children?"

During the spring of 1931, Baker's campaign against preventive medicine helped incite a minor farm rebellion in eastern Iowa. When Iowa State Department of Agriculture veterinarians attempted to enforce a statewide law of mandatory bovine tuberculosis testing, Baker used KTNT and the *Midwest Free Press* to denounce the action as "shameful" evidence of "the shackles of the medical trust" in Iowa. In Cedar County, which bordered Muscatine County to the north, farmers brandished pitchforks, two-by-fours, and rubber hoses in protest against perceived injustice and oppression. The conflict, which culminated with the mobilization of the state militia in late September, became known as the Cedar County Cow War.

Until it closed in June 1931, KTNT served as a vital medium for dissemination of anti-testing sentiment. As the official voice of the Iowa Farmers' Union, KTNT broadcast farm leaders' speeches warning that the tuberculin test was unreliable and caused healthy pregnant cows to abort. Likewise, Baker lambasted the testing procedure and all who supported it. His broadcasts, recalled former governor Dan Turner, "bait[ed] farmers, challenging them to take up pitchforks and any other weapons and throw the veterinarians off the farms."

Baker's *Midwest Free Press* suggested that the test

Baker used his newspaper, the *Midwest Free Press* (left), to stir the fires of midwestern discontent during the early 1930s.

law was the result of an underhanded deal between state government officials and crooked meatpackers in search of ways to acquire cheap beef. One article was subtitled "How Tuberculized Cattle Are Slaughtered and Sold for Meat as Part of the Outrageous Graft of Doctors, Officials, Dealers, and the Packing Interests." Bombarded with such propaganda, many Cedar County farmers suspected that the allegedly "diseased" cows were actually hauled off to packing plants and butchered as normal beef.

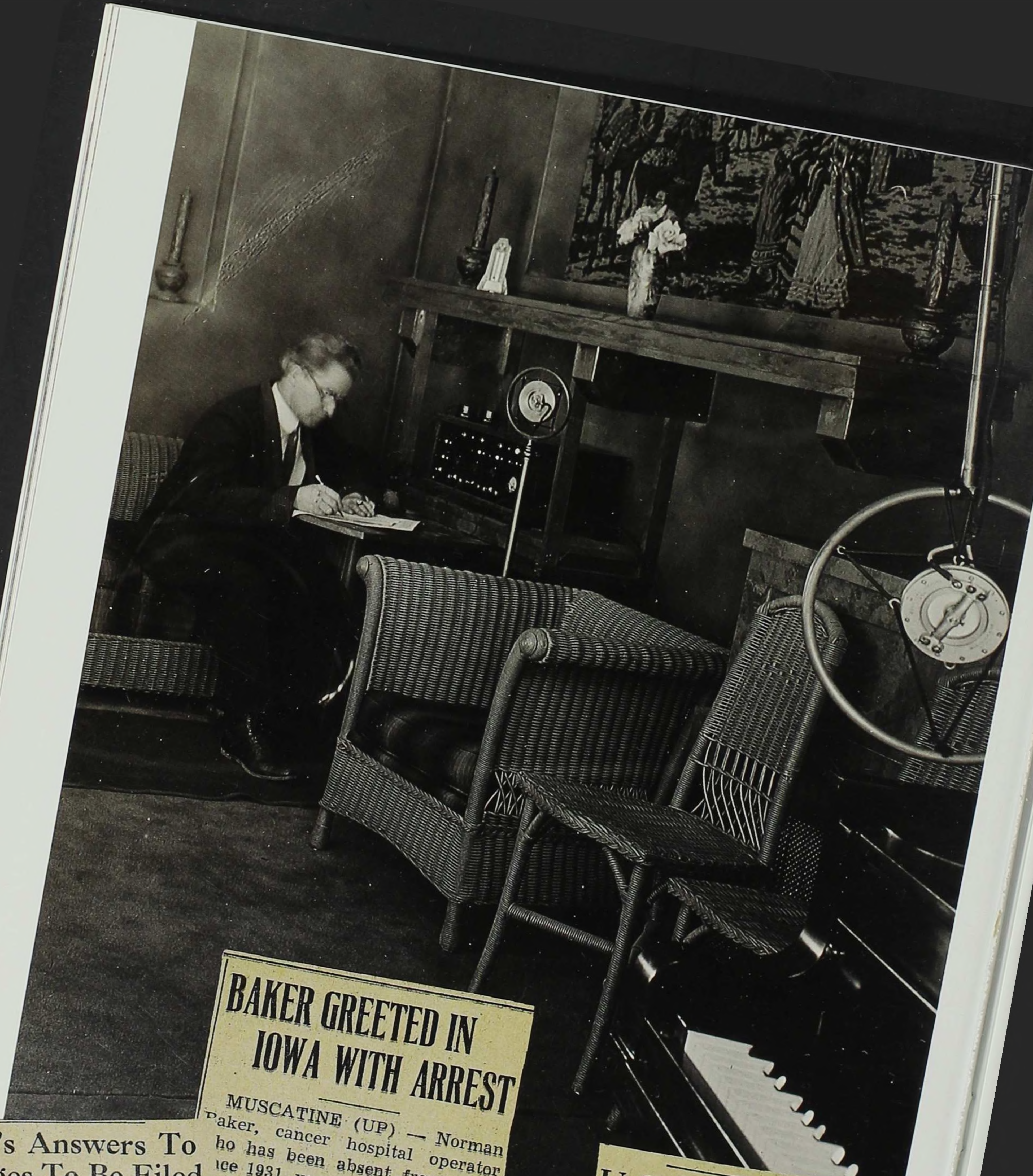
When not broadcasting and editorializing, Baker stumped Cedar County in his eye-catching lavender convertible. He was involved in at least one of the many barnyard rebellions that turned away veterinarians. At one skirmish Baker snapped a picture of a frightened veterinarian trapped in his vandalized car by a mob of unruly farmers.

Although the farmers' resistance crumbled when state militia arrived in Cedar County, essentially ending the Cow War within weeks, Baker had been encouraged by the farmers' enthusiasm for him, and he soon began to test Iowa's political waters for a potential bid for governor in 1932. During a whirlwind speaking tour, which Baker boasted reached 225,000 potential voters, he attacked the medical and radio trusts and addressed political and economic issues important to farmers. Speaking at "Baker Day" in Winfield, Iowa, he assured cheering crowds that despite his personal struggle against continual persecution "he was never too busy to aid the farmer."

Baker offered listeners a panacea to aid farmers and end the Great Depression. His so-called "Baker Plan" proposed uniting farmers into one organization. Speaking before 8,000 in Abingdon, Iowa, Baker warned farmers they would continue to serve as "tools of Wall Street and big business" if they remained "a house divided against itself." He envisioned a united farm union acting as an agricultural cooperative "advocated by the Government" yet "without Government connection," which would control prices, ensuring farmers cost of production plus a reasonable commercial profit.

Rather than working through other existing farm organizations, Baker helped establish the United Farm Federation of America (UFFA) in January 1932. Despite early enthusiasm reflected in Baker's *Midwest Free Press*, the UFFA's initial meeting attracted only 13 farmers willing to pay the organization's \$10 membership fee. The UFFA dissolved later that year.

Conveniently, Baker's plans for farmer prosperity brought prosperity to himself. In speech after speech, he correlated agricultural recovery with the success



PHOTOGRAPH COURTESY OF MAX CHURCHILL. CLIPPINGS FROM MUSCATINE ART CENTER

BAKER GREETED IN IOWA WITH ARREST

MUSCATINE (UP) — Norman Baker, cancer hospital operator who has been absent from Iowa since 1931, was under \$1,000 bond here following his prompt arrest after returning here, Tuesday afternoon. He is charged with piracy to practice medicine.

Baker's Answers To Charges To Be Filed With Supreme Court

7-14-35

MUSCATINE (UP)—Attorneys for Norman Baker, cancer clinic operator facing charges of contempt of the Iowa supreme court and practicing medicine without Iowa license, announced Saturday afternoon that an answer will be filed with the state supreme court.

Baker Files Answer To Contempt Charge

DES MOINES (AP)—Norman Baker, former Muscatine hospital operator,

U. S. Files Lien On Baker In Muscatine For \$33,442 Taxes

Sept. 21, 1935

MUSCATINE (AP) — N. G. Baker, Muscatine cancer hospital operator, Saturday was faced with a tax lien of \$33,442.89 by C. D. Huston, collector of the county internal revenue. Baker's taxes alleged unpaid since 1930, plus interest, are the subject of the action. Taxes alleged to amount to \$29,101.22.

of his own business enterprises. With KTNT silenced by the "trust" interests, Baker reminded farmers that they needed "a powerful medium which would give the farmer a voice in national as well as state politics." Baker's own *Midwest Free Press* could be such a medium, he urged, if enough farmers bought subscriptions and boosted its circulation.

Although crowds continued to attend Baker's speeches and rallies, the JAMA's campaign against the Baker Institute began to take its toll. Between June 1931 and January 1932, the institute's monthly revenue dropped from \$75,232 to \$7,008. Seeking compensation for damages to his business and reputation, Baker filed a \$500,000 libel suit against the AMA. In February 1932, the case went to court in Davenport, Iowa.

The trial proved disastrous for Baker. His skills as a rhetorical bully and master propagandist, which had worked so well over the airwaves, proved ineffective in the courtroom. With testimony from former Baker Institute patients and employees, chief AMA counsel Charles Dutcher presented damning evidence of Baker's quackery. Dutcher showed that all five of Baker's original test patients had died, although KTNT and TNT had continued to advertise these cases as "success stories." A former hospital employee revealed that Baker's secret cancer-curing liquid was nothing more than a mixture of clover, corn silk, watermelon seed, and water. Moreover, upon cross-examination, Baker was forced to admit that neither he nor any members of his medical staff had any academic training in cancer treatment.

Baker had planned on combating AMA witnesses with a string of patient testimonials. However, his pretrial campaign to solicit former patients to testify received mixed responses. "I am very sorry I will be unable to appear at your trial," replied former patient Mrs. Von Huffal of Galesburg, Illinois. "I have been in the hospital for the past four weeks . . . suffering from the same trouble I had at your hospital, only more so. About the only thing you relieved me from permanently was money and I don't think it was for humanity's sake as much as Norman Baker's. I'm afraid that my

Baker's days of studio time (left) had been over since KTNT lost its license in 1931. But his name stayed in Iowa headlines through the mid-1930s, as he faced contempt charges and campaigned for the U.S. Senate.

friends that were there at the same time will also be unable to appear as most of them are dead now."

Experts who testified on Baker's behalf were quickly ripped apart under cross-examination and the counter testimony of the AMA's own medical experts. After the month-long trial, the evidence exposing Baker's quackery was overwhelming. During final arguments AMA counsel Dutcher declared, "We called Baker a quack and we are not here to apologize for it." After a few hours of deliberation, the jury returned a verdict in favor of the AMA. In closing statements, presiding judge Norbye observed, "It seems to me that nothing is more despicable than a charlatan or imposter who professes knowledge of medical treatment, when as a matter of fact, he has little or no knowledge of that kind."

Silenced by the FRC and repudiated by the courts, Baker sought rejuvenation in Iowa politics. In June 1932, while in Nuevo Laredo, Mexico, constructing XENT, a new 100,000-watt radio station, he officially announced that he was indeed throwing his "hat and all of [his] clothes in the ring" for the Iowa governorship.

Possibly to avoid an arrest warrant for practicing medicine without a license, Baker waged his entire campaign from Mexico. With XENT still under construction in the months preceding the election, he devised ingenious methods to spread his message to Iowa voters. Always the entertainer, Baker sent four campaign trucks rolling through Iowa counties. Colorful banners bore the message "Vote for Baker and Clean up the State Grafters," and loudspeakers blared speeches and carnival music.

However, his campaign on the Farm-Labor ticket was doomed from the start. Due to his late entry after the summer primary, his name did not appear on the final November ballot. Furthermore, his reputation still suffered from his courtroom loss to the AMA the previous spring. As the election neared, Iowa's major newspapers ignored Baker's campaign, but some smaller papers assaulted his candidacy. An article in the *Manchester Press* noted that, before his current Farm-Labor campaign, "Baker's interest in the farmer was limited to how much he could sell him."

Baker garnered only 5,000 write-in votes in the November election, including just 556 from his home base in Muscatine County. Nevertheless, consoled that his Cow War foe, incumbent governor Dan Turner, had also lost, Baker claimed moral victory and resigned himself from Iowa issues.

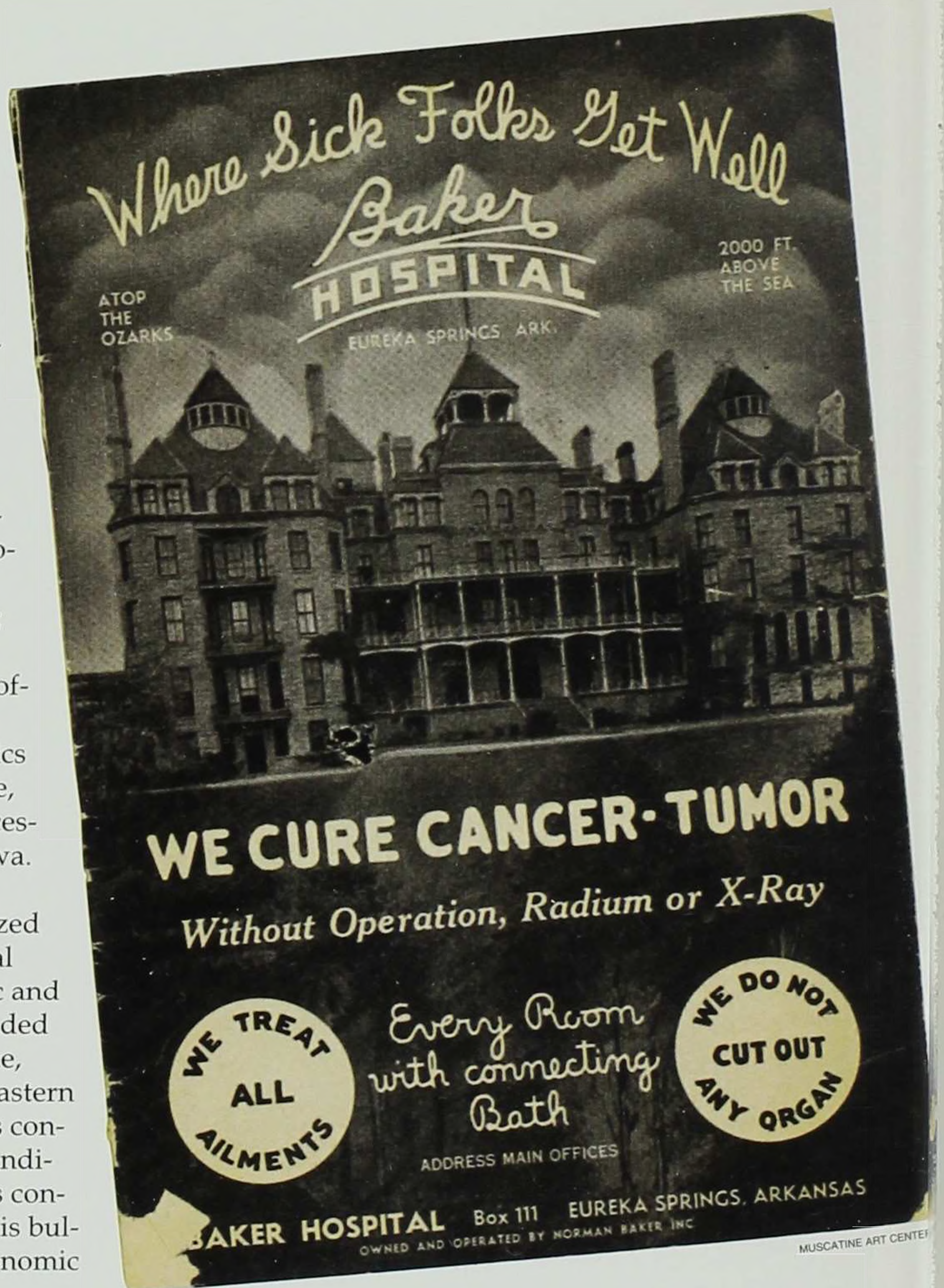
After a three-year hiatus in Mexico, Baker crossed the border in 1936 to face his outstanding arrest war-

rant and to throw his hat in Iowa's U.S. senatorial race as a Republican. After serving a one-day sentence in the Muscatine county jail, Baker hit the campaign trail. From town to town, his speeches interspersed attacks on the AMA and FRC with ideas for economic relief, including pensions for the elderly and the construction of an interstate highway system to put Americans back to work. Two days before the Republican primary election, he staged another medical show complete with patient testimonials and fiery political speeches. Yet, once again his showmanship failed to produce political results: he managed only a fifth-place finish.

Baker's unsuccessful bids for political office suggested the limits of his appeal. Restricted by the tenacious pursuit of his critics and the controversial nature of his message, Baker never secured the broad support necessary for a significant political impact in Iowa. Despite his shrewd attempts to stir his audience's emotions, most Iowans recognized that Baker's fight against radio and medical monopolies was not vital to their economic and cultural survival. Although crowds applauded Baker's charged rhetoric wherever he spoke, few Iowans outside his stronghold in the eastern portion of the state considered Muscatine's controversial cancer quack a viable political candidate. More of an amusement than a serious contender, Baker received more attention for his bullet-proof lavender roadster than for his economic proposals.

Baker's 1936 political defeat marked the end of his career in Iowa. Harassed by Iowa health authorities, Baker in 1937 relocated his cancer facility to a former posh resort outside of Eureka Springs, Arkansas, and boasted to employees that he would "make a million dollars out of the suckers of the state." He advertised his new cancer sufferer's paradise in a mass mailing of a third of a million pamphlets sent throughout the nation.

Although many continued to believe his promises, Baker's hospital atop the Ozark mountains proved short lived. In 1940 his shady business ventures finally did him in. At the urging of the AMA,



Baker shifted his cancer-cure enterprise to Arkansas in 1937, promising the public a place "where sick folks get well."

the United States government charged and convicted Baker of seven counts of mail fraud and sentenced him to four years in prison. Released after three years in Leavenworth, Baker lived his remaining years off the coast of Florida in a boat formerly owned by railroad baron Jay Gould.

Although Baker died at the age of 75 in 1958, his appeal among Iowans had expired years before. The end of the Great Depression and the outbreak of World War II had altered the environment that Baker needed to thrive. In the mid-1930s a *Time* reporter had observed that President Roosevelt's New Deal programs "were descending on the land in a gentle

pervasive rain, dampening the prairie fire of the farmers' anger." As the severity of Iowa farmers' economic frustration lifted, so did the appeal of Baker's populist message. In its place remained only a bitter memory of the misery and ill will Baker's brash invective and cancer quackery had inflicted. In the end, hired pallbearers and a handful of onlookers attended Baker's funeral ceremony near KTNT Hill, where 25 years earlier thousands had flocked to see him perform.

In retrospect, Baker's rural demagoguery realized mixed results. While colorful theatrics and stirring rhetoric helped Baker rake in an estimated \$250,000 per year during his prime, the reach and longevity of his appeal were greatly limited. Although he succeeded in inspiring some support, Baker's failure to influence powerful forces outside the corn belt insured his quick demise. Once rejected by the FRC, the courts, and Iowa voters, Baker's foothold in eastern Iowa collapsed.

In many respects Baker actually symbolized what some Iowans perceived as modern decadence and ruthless capitalism. Newspaper editors were quick to point out that Baker was more urban than rural. His fancy suits, expensive cars, and opulent jewelry suggested that he was an outsider to the rural world. Although little evidence of Iowa farmers' perception or discussion of Baker's urban image exists, it is worth noting that UFFA members were disturbed when

Baker accepted the post as the association's lifetime secretary. After all, members noted, the UFFA was created for "farmers only" and Baker had never been a farmer.

Questions of credibility also hindered his acceptance. With his sales-pitch mentality and hot temper, Baker struggled to maintain an image of a benevolent and ingenuous reformer. Most Iowans saw through his radical screen and recognized Baker for the hustler he was. A newspaper reporter spoke for many Iowans when he denounced Baker in 1931 as a "populist firebrand who does not hesitate to arouse the basest passions of men in order to further his ambition." Baker fooled only some, and even then it did not last.

Nevertheless, Baker's appeal cannot be glossed over. Baker reflected the unsettled environment of the 1920s and 1930s. Genuine economic and cultural tensions threatened Iowa's farmers and hastened their acceptance of populist rhetoric, whether constructive or not. Seeking scapegoats and a vent for frustration, many Iowans eagerly turned their resentment towards the power brokers of urban industrial society. The time was ripe for a demagogic prophet of deceit to prosper, and Baker had seized the moment. ❖

Eric Juhnke is a doctoral student in U.S. history at the University of Kansas. He plans to continue his research on Norman Baker for his dissertation on medical quackery of the 1920s and 1930s. He thanks the Iowa Sesquicentennial Commission and the State Historical Society of Iowa for a Sesquicentennial grant, which helped fund this research.

NOTE ON SOURCES

Research in primary sources was conducted in the following collections and archives: Norman Baker Collection at the Muscatine Art Center (Muscatine, IA); Herbert Hoover Presidential Library (West Branch, IA); Cedar Country Courthouse (Tipton, IA); and the Norman Baker Collection and the Archives and Historical Health Fraud Collection, American Medical Association Archives (Chicago). Contemporary newspapers and publications included: *Journal of American Medical Association*, *TNT*, *Midwest Free Press*, *Muscatine Journal*, and various other Iowa newspapers. Additional sources included: Thomas Hofer, "Norman Baker and American Broadcasting" (M.A. thesis, University of Wisconsin, 1974); author's interview with Raymond Kroemer (Lowden, IA, March 27, 1992); Alvin Winston, *Doctors, Dynamiters, and Gunmen: The Life Story of Norman Baker* (Muscatine, 1936), and *The Throttle: The Fact Story of Norman Baker* (Muscatine, 1932); H.L. Mencken, *Prejudices, Fourth Series* (New York, 1924); Mauritz A. Hallgren, "The Patriotic Radio Trust," *The Nation* 125 (July 20, 1927); George Mills, *Rogues and Heroes from Iowa's Amazing Past* (Iowa City, 1972); "Times of Trouble: The Cow War," *The Iowan* (Apr.-May 1959); and Warren B. Smith, "Norman Baker—King of the Quacks," *The Iowan* (Dec.-Jan. 1958-59).

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Thanks to Virginia Cooper at the Muscatine Art Center and Max Churchill (Muscatine) for their help in providing images. Complete annotations are in the *Iowa Heritage Illustrated* production files (State Historical Society of Iowa, Iowa City).



'Shortening the river'

Henry Bosse's images of the changing Mississippi

by Ron W. Deiss

"The military engineers of the Commission have taken upon their shoulders the job of making the Mississippi River over again," Mark Twain observed in 1883, "a job transcended in size only by the original job of creating it. They are building wing dams here and there, to deflect the current; and dikes to confine it in narrower bounds; and other dikes to make it stay there."

Twain, in *Life on the Mississippi*, was referring to the enormous changes federal engineers were undertaking on the Upper Mississippi River. And he doubted that their efforts would succeed: "They have started in here with big confidence, and the best intentions in the world; but they are going to get left. What does Ecclesiastes 7:13 say? ['Consider the work of God; for who can make that straight which He hath made crooked.'] Says enough to knock *their* little game galley-west, don't it?"

About the same time that Mark Twain was remarking on what he called "shortening the river," another American, also entranced by the Mississippi, was photographing the river, its commerce, and the make-over that Twain was scoffing at. Henry Peter Bosse would photograph the Upper Mississippi between 1883 and 1892, thereby chronicling the river during a pivotal period of its history and during one of America's largest civil works projects.

Since the mid-19th century, photographers had been hired to record large government surveys, scientific expeditions, and civil works projects, generally within the context of discovery, exploration, or change in the landscape. Although many photographed the river between St. Paul and St. Louis, Bosse captured its essence, with excellent composition and unequalled aesthetic appeal.

Born in 1844 in Prussia, Bosse

Among the river improvements Bosse photographed were constricting or wing dams (left), which reduced the natural meandering and braiding of the river by contracting or combining flows into one channel of uniform width. These long, narrow dams extended from the bank into the river at various angles, sometimes crossing sloughs to islands but never crossing the navigation channel. Dam construction was labor intensive and began with cutting willow brush. The willow was woven and bound into bundles called fascines, which were tied together into large mattresses. The mattresses were floated on the water, then covered with quarried rock until the entire structure sank. The dam was built to the required height by alternating layers of mattresses and rock. As silting occurred behind the dam, this further constricted the channel, increased the current, and scoured the river bottom, resulting in an even deeper channel. Wing dam construction was so extensive that by 1880 Corps engineers worried that they would exhaust the native willow supplies.

U.S. ARMY CORPS OF ENGINEERS, ROCK ISLAND DISTRICT

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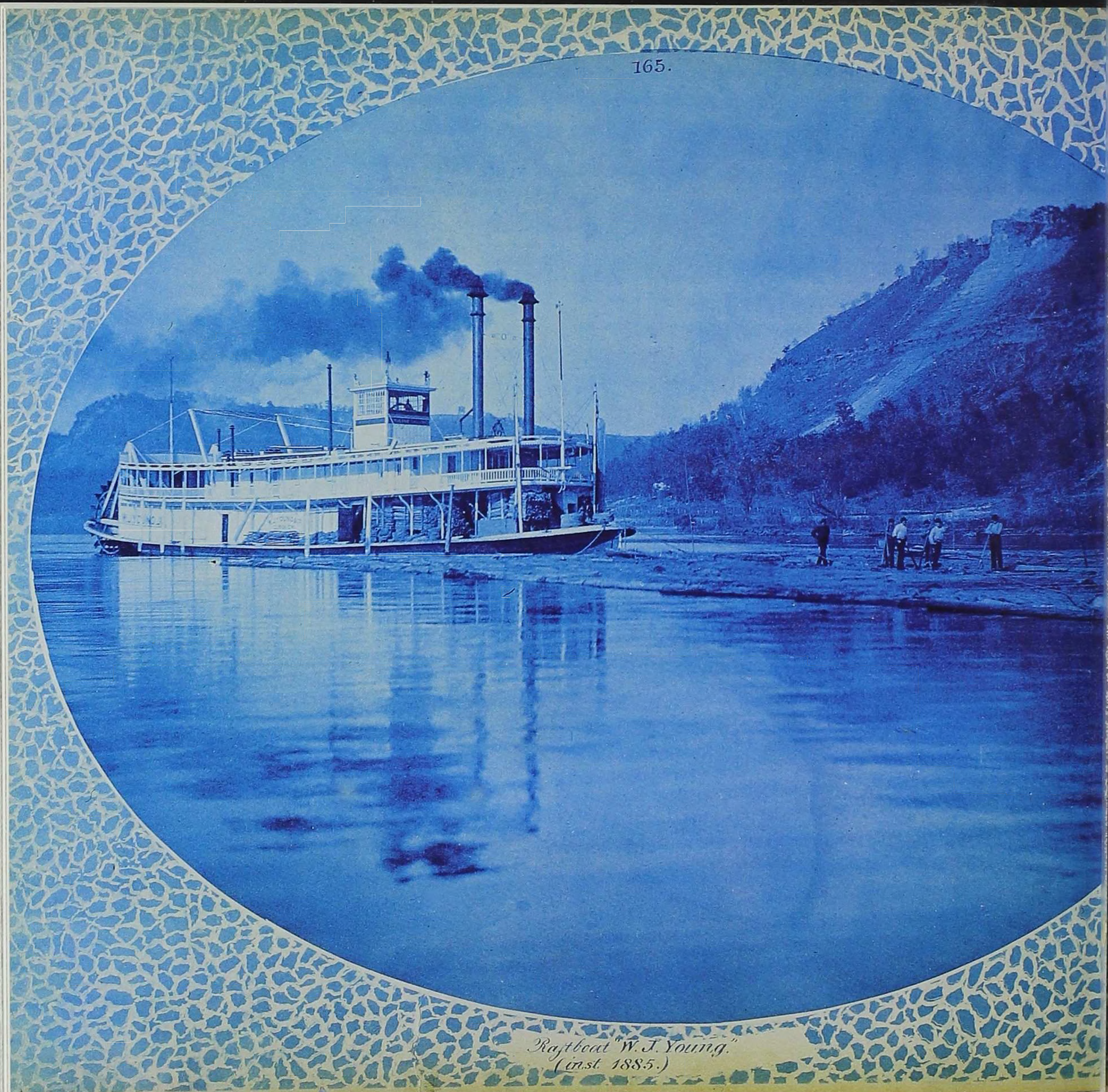
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U.S. ARMY CORPS OF ENGINEERS, ROCK ISLAND DISTRICT





*Raftboat "W. J. Young."
(inst. 1885.)*


U.S. ARMY CORPS OF ENGINEERS, ROCK ISLAND DISTRICT

Raftboats like the *W. J. Young Jr.* (above) were the work-horses of the Mississippi, steering enormous rafts of logs to sawmills. In Bosse's 1885 photograph, the raftsmen lean on their cant hooks and face the camera. The many ricks of cordwood for fuel on the main deck suggest a long haul, probably to Clinton, Iowa.

In 1882, Mark Twain had described such rafts: "Up in this region we met massed acres of lumber rafts coming down—but not floating leisurely along, in the old-fashioned way, manned with joyous and reckless crews of fiddling,

song-singing, whisky-drinking, break-down-dancing rapsalions; no, the whole thing was shoved swiftly along by a powerful stern-wheeler, modern fashion, and the small crews were quiet, orderly men, of a sedate business aspect, with not a suggestion of romance about them anywhere."

The *W. J. Young Jr.* was built in Dubuque in 1882 for saw-mill baron W. J. Young, Clinton's second largest employer. From 1866 to 1886, Young's Big Mill reportedly had the largest saw in the West, with a 1,000-horsepower steam engine and a flywheel 18 feet in diameter.



was formally educated in art and engineering. About 1870, he immigrated to America, and by 1874 had entered the U.S. Army Corps of Engineers as a draftsman at St. Paul, Minnesota. Four years later, Bosse was transferred to Rock Island, Illinois. He stayed in this area, working for the Corps for the remainder of his life. He would be remembered as a creative, talented artist with a sense of humor, and, in his obituary, as "a man of culture and impressive intellect, albeit of aristocratic manner. . . . with a robust physique and pronounced military bearing."

Bosse's tenure in the Corps fell within one of its major phases of improvement to make the river more navigable, especially where rapids and obstructions had long endangered river traffic. Although the most skilled steamboat pilots learned to navigate stretches of treacherous waters by memorizing landmarks, watching the water surface, and noting changes, steamboat explosions, fires, collisions, groundings, and wrecks were common.

Efforts earlier in the century had only begun to address the problems. Then, after the Civil War, a booming lumber industry and westward settlement provided military and economic justifications for viable river transportation. Speculating that extensive river improvements would reunite the country by opening up trade routes between the North and

South, Congress assigned the U.S. Army Corps of Engineers the monumental task of improving inland waterways under legislative acts in 1866 and 1878.

This second act, a comprehensive project called the Upper Mississippi River Improvement, required the construction and maintenance of a 690-mile-long channel with a guaranteed depth of 4½ feet. This meant that steamboats with just under that much draft would now be able to use the Upper Mississippi from

the spring rains until the winter freeze. Yet many pilots thought that the Corps would fail, that it was an impossible feat to alter the tremendous force of the Mississippi. Rivermen's jests quickly diminished as the navigation season was extended, and wrecks and groundings decreased.

As a Corps draftsman during this era, Henry Bosse created maps, navigational charts, plans, and specifications for harbor, levee, and channel improvements. By 1883, he had begun to compile a comprehensive photographic record of Corps work as part of the immense support documentation necessary. Many of his photos were included in Corps reports to Congress describing improvements, recommending projects, and justifying expenditures.

During reconnaissance surveys, Bosse traveled by steamboat, assisting engineering parties, recording river conditions, and documenting construction projects. Bosse and at least one assistant would transport his heavy camera, tripod, 11x14-inch "dry chemical" plate glass negatives, and other accessories to the chosen site—often a bluff or hillside overlooking the river. He composed other images from levees or sandbars, from high rooftops or the river's edge.

Bosse used cyanotype, albumen, and various gelatin black-and-white processes to print from his negatives. Although the cyanotype process was relatively inexpensive (it would eventually evolve into the blueprint process), it yielded great clarity. Its characteristic Prussian blue penetrated the paper, providing the high degree of resolution and stability preferred by engineers, scientists, and artists.

Bosse took approximately 300 different images of the Upper Mississippi River Improvement; a sampling of his photos related to Iowa appears here. He meticulously documented subject, location, direction, and water conditions. He framed his images with oval, circular, or rectangular mats or vignettes, and bound sets of them into albums, each with an elaborately hand-lettered and decorated frontispiece.

One of the albums was displayed at the 1893 World's Columbian Exposition in Chicago, following a request by the War Department that all major civil and military branches provide photographs, maps, or exhibits. The album's depiction of waterway improvements and river commerce would have fit in perfectly with the fair's intention to glorify human achievements in the New World. A few of the albums were apparently presented to high-ranking engineers, and over the years they passed into the hands of river historians and collectors; others remained with the Army Corps of Engineers. Today, only six bound sets of al-



*Raftboat "W. J. Young,"
(east, 1885.)*

U.S. ARMY CORPS OF ENGINEERS, ROCK ISLAND DISTRICT

Raftboats like the *W. J. Young Jr.* (above) were the work-horses of the Mississippi, steering enormous rafts of logs to sawmills. In Bosse's 1885 photograph, the raftsmen lean on their cant hooks and face the camera. The many ricks of cordwood for fuel on the main deck suggest a long haul, probably to Clinton, Iowa.

In 1882, Mark Twain had described such rafts: "Up in this region we met massed acres of lumber rafts coming down—but not floating leisurely along, in the old-fashioned way, manned with joyous and reckless crews of fiddling,

song-singing, whisky-drinking, break-down-dancing rapsca-lions; no, the whole thing was shoved swiftly along by a powerful stern-wheeler, modern fashion, and the small crews were quiet, orderly men, of a sedate business aspect, with not a suggestion of romance about them anywhere." The *W. J. Young Jr.* was built in Dubuque in 1882 for saw-mill baron *W. J. Young*, Clinton's second largest employer. From 1866 to 1886, *Young's Big Mill* reportedly had the largest saw in the West, with a 1,000-horsepower steam engine and a flywheel 18 feet in diameter.

was formally educated in art and engineering. About 1870, he immigrated to America, and by 1874 had entered the U.S. Army Corps of Engineers as a draftsman at St. Paul, Minnesota. Four years later, Bosse was transferred to Rock Island, Illinois. He stayed in this area, working for the Corps for the remainder of his life. He would be remembered as a creative, talented artist with a sense of humor, and, in his obituary, as "a man of culture and impressive intellect, albeit of aristocratic manner... with a robust physique and pronounced military bearing."

Bosse's tenure in the Corps fell within one of its major phases of improvement to make the river more navigable, especially where rapids and obstructions had long endangered river traffic. Although the most skilled steamboat pilots learned to navigate stretches of treacherous waters by memorizing landmarks, watching the water surface, and noting changes, steamboat explosions, fires, collisions, groundings, and wrecks were common.

Efforts earlier in the century had only begun to address the problems. Then, after the Civil War, a booming lumber industry and westward settlement provided military and economic justifications for viable river transportation. Speculating that extensive river improvements would reunite the country by opening up trade routes between the North and South, Congress assigned the U.S. Army Corps of Engineers the monumental task of improving inland waterways under legislative acts in 1866 and 1878.

This second act, a comprehensive project called the Upper Mississippi River Improvement, required the construction and maintenance of a 690-mile-long channel with a guaranteed depth of 4½ feet. This meant that steamboats with just under that much draft would now be able to use the Upper Mississippi from

the spring rains until the winter freeze. Yet many pilots thought that the Corps would fail, that it was an impossible feat to alter the tremendous force of the Mississippi. Rivermen's jests quickly diminished as the navigation season was extended, and wrecks and groundings decreased.

As a Corps draftsman during this era, Henry Bosse created maps, navigational charts, plans, and specifications for harbor, levee, and channel improvements. By 1883, he had begun to compile a comprehensive photographic record of Corps work as part of the immense support documentation necessary. Many of his photos were included in Corps reports to Congress describing improvements, recommending projects, and justifying expenditures.

During reconnaissance surveys, Bosse traveled by steamboat, assisting engineering parties, recording river conditions, and documenting construction projects. Bosse and at least one assistant would transport his heavy camera, tripod, 11x14-inch "dry chemical" plate glass negatives, and other accessories to the chosen site—often a bluff or hillside overlooking the river. He composed other images from levees or sandbars, from high rooftops or the river's edge.

Bosse used cyanotype, albumen, and various gelatin black-and-white processes to print from his negatives. Although the cyanotype process was relatively inexpensive (it would eventually evolve into the blue-print process), it yielded great clarity. Its characteristic Prussian blue penetrated the paper, providing the high degree of resolution and stability preferred by engineers, scientists, and artists.

Bosse took approximately 300 different images of the Upper Mississippi River Improvement; a sampling of his photos related to Iowa appears here. He meticulously documented subject, location, direction, and water conditions. He framed his images with oval, circular, or rectangular mats or vignettes, and bound sets of them into albums, each with an elaborately hand-lettered and decorated frontispiece.

One of the albums was displayed at the 1893 World's Columbian Exposition in Chicago, following a request by the War Department that all major civil and military branches provide photographs, maps, or exhibits. The album's depiction of waterway improvements and river commerce would have fit in perfectly with the fair's intention to glorify human achievements in the New World. A few of the albums were apparently presented to high-ranking engineers, and over the years they passed into the hands of river historians and collectors; others remained with the Army Corps of Engineers. Today, only six bound sets of al-

bums of Bosse's rare photos are known to still exist.

Without question, the improvement of the river as a transportation system is the dominant or implied theme of Bosse's photographs. Although people are not central to the photographs, Bosse included human figures in many images to provide scale or add depth, to animate improvements or generate interest. A few images with people provide insights into the Corps and its infrastructure, illustrating the social and military hierarchy of the river. Employees are shown at their assigned posts: pilots in the pilothouse, mechanics close to equipment or locks. Surveyors hold range poles, and crews operate dredges and boats. Seasonal or contracted laborers are engaged in chores under the watchful eyes of their supervisors and seem indifferent to the photographer. In contrast, officers, engineers, and supervisors convey a military presence, proudly facing the camera or monitoring the workers.

Bosse's formal education and training as an illustrator are evident in the quality and consistency of the photographs. Bosse composed images that embody the essential characteristics of the river and its valley. In his bird's-eye perspectives, the viewer is drawn into the grandeur through the varied topographic relief. His compositions reveal varying degrees of influence by 19th-century romanticism; many of his "vistas" depict idyllic and ageless scenery or natural settings.

Yet, as pointed out by the curator of photography at the Smithsonian's National Museum of American History, Bosse's photographs also reveal a shift from romantic to industrial and geometric subjects. The human artifice of Bosse's vistas are the monumental features of river improvements. Bridges and urban growth serve as popular symbols of industrial complexity, opportunistic development, and evolving transportation networks of the late Victorian period. Although the enormity of the river sometimes dwarfs the structures, the images give a decided air of credibility and dignity to the massiveness of architecture and the built environment.

The dynamic change that underlies Bosse's compositions also reflect changes in the dynamics of river

commerce and communities. By the late 19th century, river traffic was decreasing. Even as the Corps tamed the Mississippi, the hills and valleys of the Upper Midwest were being stripped of timber for lumber, lath, shingles, and millwork, and the extensive prairies turned to cropland and pasture. Although river traffic remained important for moving agricultural products and timber, it was seasonal, costly, inefficient, unpredictable, and limited to short-haul routes. Conversely, the extensive railroad system that connected nearly every settlement coast to coast supplied the raw materials to industries and carried the larger share of agricultural products to market.

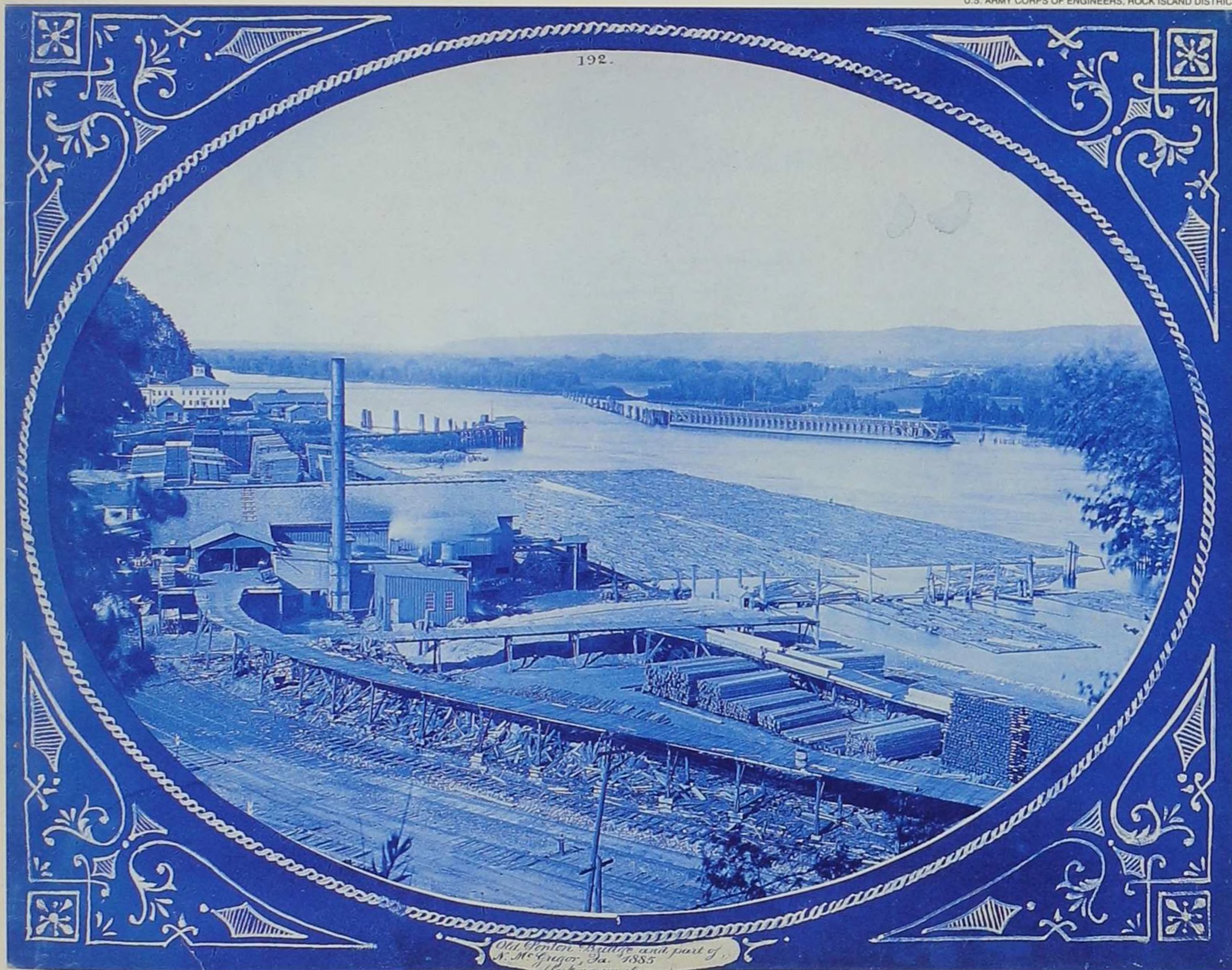
Nevertheless, Corps improvements continued, long after Bosse's death in 1903. In efforts to accommodate larger boats, barges, and towboats, Congress authorized first a six-foot and then a nine-foot channel. By 1940, the nine-foot channel and its system of 27 locks and dams were completed; in response, river traffic picked up as new diesel towboats barged the nation's grain, fuel, and other bulk commodities.

Bosse's photography shows the Upper Mississippi transformed from a natural, free-flowing, sometimes dangerous river into a safe, dependable transportation waterway. As a comprehensive, thematic collection, it comprises informative, well-documented scenes taken at appropriate intervals; at the same time it depicts the beauty and grandeur of the river. His treatment of the subject matter illustrates change and growth within aesthetic compositions, rather than emphasizing romantic nostalgia with traditional symbols. Bosse succeeded as one of the earliest landscape photographers to depict modern constructs as having artistic merit. He left a superb photographic record of the Corps of Engineers' great experiment of "shortening the river" and of the changing commerce and landscape of the Upper Mississippi.

Ron W. Deiss is a historian and district archaeologist for the U.S. Army Corps of Engineers in Rock Island, Illinois, and has published many histories and excavated many sites on the river.

NOTE ON SOURCES

Major sources include: Ed Brick, "Mike Spettel's Better Bridge—Part Bridge, Part Pontoon," *Big River* 1:12 (1965); William Petersen, "Mississippi River Floods," *Palimpsest* 46:7 (1965); A. W. Robinson, "Dredges: Their Construction and Performance . . .," *Transactions of the American Society of Civil Engineers*, 54(C) 1905; Lucy Rodenberg, "Rafting and Lumber Business Played Big History," *North Iowa Times* (Feb. 21, 1966); Everett A. Streit, *Once Upon a Time*, vols. 1, 2 (Clinton: *Clinton-Herald*, 1993); Sally Scarff, *Marquette Valley News* (March 1966); Robert Taft, *Photography and the American Scene* (New York: Dover, 1964); John Thompson, *Biographical Notes and Commentary on the Work of Henry Bosse* (1991 report for U.S. Army Corps of Engineers, Rock Island District); C. MacDonald Townsend, "The Improvement of the Upper Mississippi River," *Engineering News* 61:18 (1909); Roald Tweet, *Rock Island District: 1866-1983* (Rock Island: U.S. Army Engineer District, 1984), and *Taming the Des Moines Rapids: The Background of Lock 19* (1978); U.S. Army Corps of Engineers publications and annual reports (1875-1926); War Dept. correspondence regarding Bosse's death in the National Archives and Records Administration; Frederick Way, Jr., *Way's Packet Directory, 1848-1983* (Athens: Ohio University, 1983); and *Way's Steam Towboat Directory* (1990). Complete annotations are in the *Iowa Heritage Illustrated* production files (SHSI-Iowa City).



In 1885 Bosse photographed this view of North McGregor, Iowa, and its pontoon bridge in the distance. Here in 1836, a Scotsman named Alexander McGregor had established a ferry across the river from Fort Crawford at Prairie Du Chien, Wisconsin. Following the Civil War, the two namesake Iowa villages of North McGregor and nearby McGregor grew into thriving ports. In the early 1870s, the Chicago, Milwaukee, and St. Paul Railroad chose North McGregor, the smaller of the two towns, as a bridge site because of an extremely low approach grade and an island between the shores. In 1873, railroad agent Joseph Lawler constructed fixed spans on the banks and the intervening island, but he lacked a specific plan to connect these approaches for rail travel without obstructing river traffic. Mike Spettel, a German-born shipwright, designed the perfect solution: timber pontoons connecting the fixed spans. Lawler had these two peculiar structures built during the winter of 1873. When not in use, the pontoon sections were floated open, pivoting out of the steamboat channel to accommodate the passage of vessels, log rafts, and ice floes. Tradition holds that these were the world's first permanent pontoon bridges.

Bosse's photo is dominated by the W. and J. Fleming Sawmill and Lumber Company, one of North McGregor's largest employers. During the height of the logging season, this company employed 120 workers. The gangplanks are elevated from the river mud and high water levels.

Prominent among the buildings in the background is the grandiose three-story Merchant's House; its imposing cupola provided kingly views of owner Gerhard Wingen's sawmill concerns on nearby islands.

Despite a healthy economy, North McGregor was physically limited by the narrow riverfront valley of Bloody Run Creek and the immense bluffs. As the century turned, the town's economy eddied due to declining logging and river traffic. In 1920, the citizens of North McGregor opted for a name change to Marquette to allow for a measure of independence from its sister city. Through the years, the pontoon bridge was viewed as a successful structural oddity, floating trains over the river. But by the 1950s, railroad commerce through Marquette had slackened, and in 1961 the bridge was dismantled. Although the river lost one of its truly unique landmarks, today Marquette is a well-preserved showcase village with spectacular river views.



BOTH IMAGES: U.S. ARMY CORPS OF ENGINEERS, ROCK ISLAND DISTRICT

Opened for horse and wagon traffic in July 1891 (and photographed the same year by Bosse), the Fulton Highway “high fixed” bridge was constructed by the Lyons and Fulton Bridge Company over the narrows between Lyons, Iowa, and Fulton, Illinois, one of the Midwest’s busiest ferry crossings. Bosse’s photograph looks west towards Lyons, which was annexed to Clinton in 1894.

The photo captures the graceful arches and unique lattice patterns engineered into this bridge. The entire structure had a light, airy appearance due to the riveted steel truss framing and supporting tie rods. Cars and trucks using the tollbridge could be fined \$5 if driven faster than a walk over the wooden deck. The bridge was demolished in August 1975.

This swingspan bridge at Clinton, Iowa, was built by the Central and Northwestern Railroad between 1864 and 1866, and photographed by Bosse in 1885. A swingspan rotates to allow through passage and works well at relatively level approach grades.

Although the Corps of Engineers regulated bridge construction for river navigation because Congress and the courts had determined that bridge heights and piers could not impede river traffic, bridges intimidated older steamboat pilots, who yearned for the days when the "Mississippi was King." But by the late 19th century, the importance of railyards and depots had supplanted steamboat landings in river towns as trains carried the lion's share of commerce. Their routes were straight, dependable, and linked to a steel web of destinations. Steamboat trade was seasonal and affected by weather and water conditions.

Considered an engineering marvel in its time, this bridge was replaced in 1908. Today, all the remaining swingspan bridges on the Upper Mississippi River are railroad bridges; a few also take vehicular traffic.





U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT

The only photographs Bosse took in the spring of 1888 were a series of ten views of the flood waters within the city limits of Davenport and Rock Island, thus beginning a Corps tradition of photographing Mississippi River floods. This image shows Front Street in Davenport.

The Flood of 1888 was one of the worst on the Upper Mississippi. From Dubuque to Keokuk, the Mississippi set records or near records that year.

The *Muscatine Daily News* of May 14, 1888, reported a 17.41-foot flood stage, predicting it would “stand as the highest on record for years, possibly for a century. . . . While this is barely an inch higher than the great rise of 1881, an inch added to that mad flood with a surface of 3 to 8 miles in width means a vast volume of water.”

Stacks of lumber await shipment in this 1885 photograph of Fort Madison. Logging was one of the first land-based industries of the Mississippi and included woodhawks who supplied wood fuel to passing steamboats, raftboats that pushed rafts of logs downstream, and large sawmills that supplied the lumber, trim, and shingles for the Midwest.

Corps improvements on the Mississippi resulted in much of the economic growth along the river, especially in the lumber industry. In 1879, the Corps reported to Congress that "between the mouth of the Chippewa and Saint Louis there are 73 mills on the main river, with an annual day-sawing capacity of 600,000,000 feet, employing 12,000 men, and representing \$12,000,000 of capital. The estimated produce of white pine floated into the Mississippi River in 1878 was 826,000,000 feet of lumber, 218,000,000 shingles, and 109,000,000 laths."



U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT



Bosse took 16 photographs of the Des Moines Rapids Canal, the largest number of any area of river improvements—evidence of the canal's importance relative to Corps expenditures, and of the problems caused by the Mississippi's Des Moines Rapids.

So named because of the Des Moines River tributary, the Des Moines Rapids were as challenging and dangerous to navigate as floods and low water were, and caused numerous wrecks. The rapids stretched between Montrose and Keokuk. This section of the Mississippi was a very wide area interspersed with rock ledges and littered with boulders deposited by glaciers during the last Ice Age. Through time, the erosional forces of the river had exposed the boulders, making the Des Moines Rapids one of the most dangerous stretches on the Upper Mississippi.

The rapids had been surveyed as early as 1837, by Lieutenant Robert E. Lee and Second Lieutenant Montgomery C. Meigs. In fact, their own boat ran aground on the rocks. In 1838 they began excavation for channel improvement through the rapids and continued for two years until appropriations were cut.

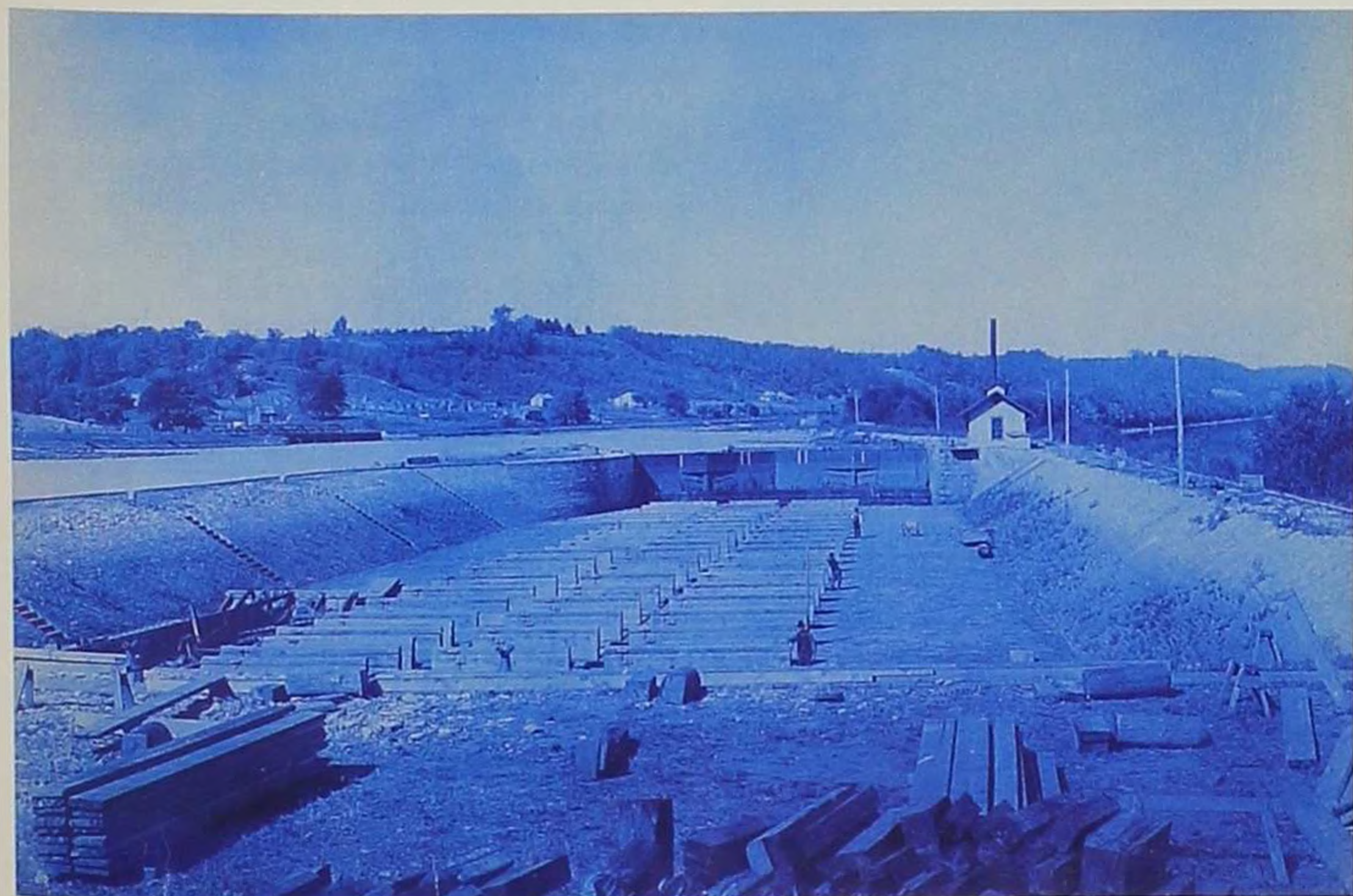
Work began again in 1866. Between 1867 and 1877, the 7.6-mile-long Des Moines Rapids Canal was built to bypass the treacherous rapids. Although some seasoned pilots continued to navigate the rapids, the slower but safer canal with its three locks became the preferred route for packet and freight boats.

The Guard Lock (above) is the first of the canal's three locks. This lock provided no lift or fall, but was used to monitor water flows and prevent obstructions from entering the canal.

The lock was located along the Iowa shore near the head of the rapids and a cluster of buildings called Nashville (later, Galland), an early territorial town. The split rail fence in the foreground of Bosse's 1885 photograph is a reminder of the area's rough topography and early settlement.

Closer to the river, a Chicago, Burlington, and Ohio Railroad locomotive with five freight cars and caboose is stationed on a siding. The Corps steamlaunch *Louise* and two barges for laborers' quarters are in the canal's turning basin.

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Still waters reflect the 27-square-foot building that housed the lock machinery at the canal's middle lock (above). Because the gates were opened and closed by a steam pump, each lock required only a single worker.

Left: A view of the dry dock. The locks were constructed of limestone from the nearby Sonora Stone Quarries. The miter gates were built of cedar and cypress wood. Each lock was 350 feet long, 80 feet wide at the surface, and provided a minimum depth of five feet.

ALL THREE IMAGES: U.S. ARMY CORPS OF ENGINEERS, ROCK ISLAND DISTRICT

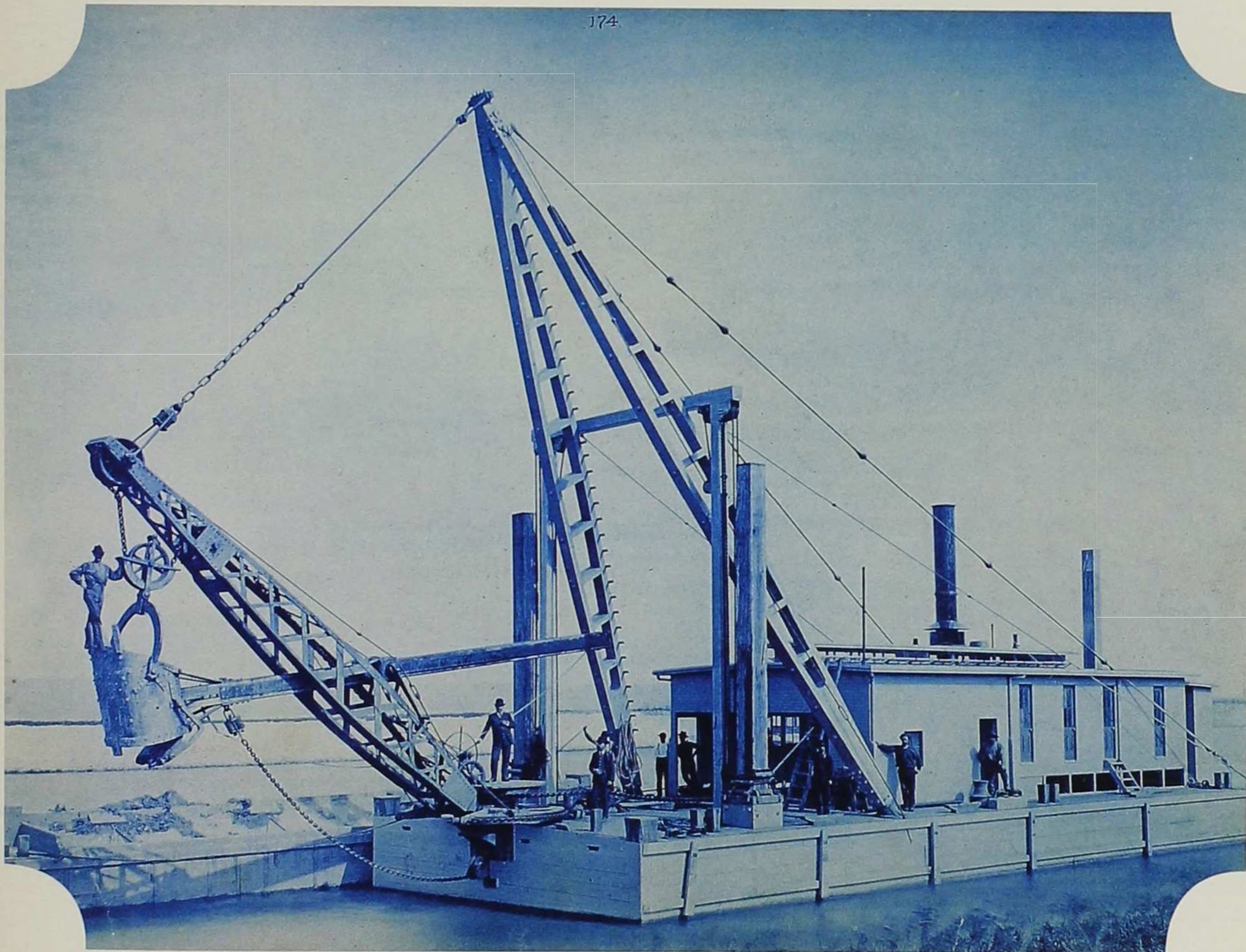
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ALL THREE IMAGES: U.S. ARMY CORPS OF ENGINEERS, ROCK ISLAND DISTRICT

The Lower Lock of the Des Moines Rapids Canal was at the foot of the rapids, at Keokuk. In the above view, taken by Bosse in 1885, the *Louise* is docked above the lock. Built by the Corps at the Keokuk boatyard, the *Louise* was a single-deck, one-stack towboat. At the expense of power, it was built small to maneuver in the canal.

Left: At the Lower Lock, the main buildings were constructed in the massive Romanesque style with locally quarried stone blocks. At the rear of the lock grounds were machine and repair shops of the Rock Island District Boatyard, where the Corps constructed vessels and maintained its fleet. Here also was the office of the engineer for this section of the river, Montgomery Meigs. Meigs was a capable, highly educated engineer and the son of Montgomery C. Meigs, who had first surveyed the rapids with Robert E. Lee in the 1830s.



The spanking-new dredge the *Phoenix* was docked in the Des Moines Rapids Canal when Bosse took this image in 1888. Dressed to the hilt, high-ranking Corps engineers stand at attention; a crew member strikes a pose suspended over the water on the bucket of the crane.

Like drill boats, chisel boats, building and grasshopper barges, pile drivers, and derrick boats, dredges contributed mightily to the Corps of Engineers' river improvements. Teamed with snag boats and dynamite, dredges removed boulders, sand bars, and sunken ships, and dredged and scraped sediment from the channel, harbors, and at the mouths of tributaries.

The earliest Corps dredges on the upper river were not self-propelled. They consisted of a barge with a crane or boom, on which was mounted a single dipper operated by a hoisting engine. A crane operator, two or three deckhands, and a fireman made up the crew. The variety of work conducted by dipper dredges revealed them to be versatile and well adapted to construction projects and debris removal. Civil engineers found them handy to maneuver in confined spaces.

Besides the *Phoenix*, the Corps depended on two more dredges, the *Ajax* and the *Vulcan*. Their names, drawn from mythological imagery for fire and explosions, conjure up the huge clouds of black coal smoke that billowed forth from their stacks during operation.

In the Corps of Engineers, naming a vessel is a tradition usually reserved for self-propelled boats; the fact that these three dredges were named may have reflected their growing importance to the Corps flotilla.



U.S. ARMY CORPS OF ENGINEERS, ROCK ISLAND DISTRICT

Bosse took one of the earliest photographs of historic Mechanic's Rock, immortalizing its significance to river pilots and Corps improvements. He photographed the rock during a survey of the river at the low water of 1889, hence the inclusion of a rodman.

Mechanic's Rock was one of the largest glacial boulders that littered the Des Moines Rapids. The five-ton boulder had acquired its name after being struck by the steamboat *Mechanic* in the 1830s. The cause of many wrecks, Mechanic's Rock was moved from the navigation channel in the rapids by a team of oxen in the 1840s.

For the remainder of the century, Mechanic's Rock became a landmark on the Upper Mississippi. Even after the 7.6-mile canal was built to skirt the rapids, seasoned steamboat pilots who could read the rapids' eddies and swirls used Mechanic's Rock to navigate the rough water. By the end of the century, however, few raft pilots took on the rapids, and then only at high water.

In 1905, Congress authorized the construction of the Keokuk Dam and Power Plant spanning the Mississippi. Consequently, in 1913 the new 50-square-mile Lake Keokuk reservoir inundated the infamous rapids and the bypass canal. Mechanic's Rock was now covered by some 17 feet of water.

In recent years, the history and exact location of Mechanic's Rock have been further researched. As a 1996 Iowa Sesquicentennial project, the city of Montrose enlisted divers and a mechanical dredge to retrieve Mechanic's Rock from the deep, murky waters of the Mississippi, somewhere near Upper Mississippi River Mile 374. The effort failed, but Mechanic's Rock is now under consideration for the National Register of Historic Places.

Bosse's evocative image of Mechanic's Rock is a vivid reminder of the "great experiment"—when the Corps of Engineers worked to tame the Mississippi into a safe, navigable waterway. ❖

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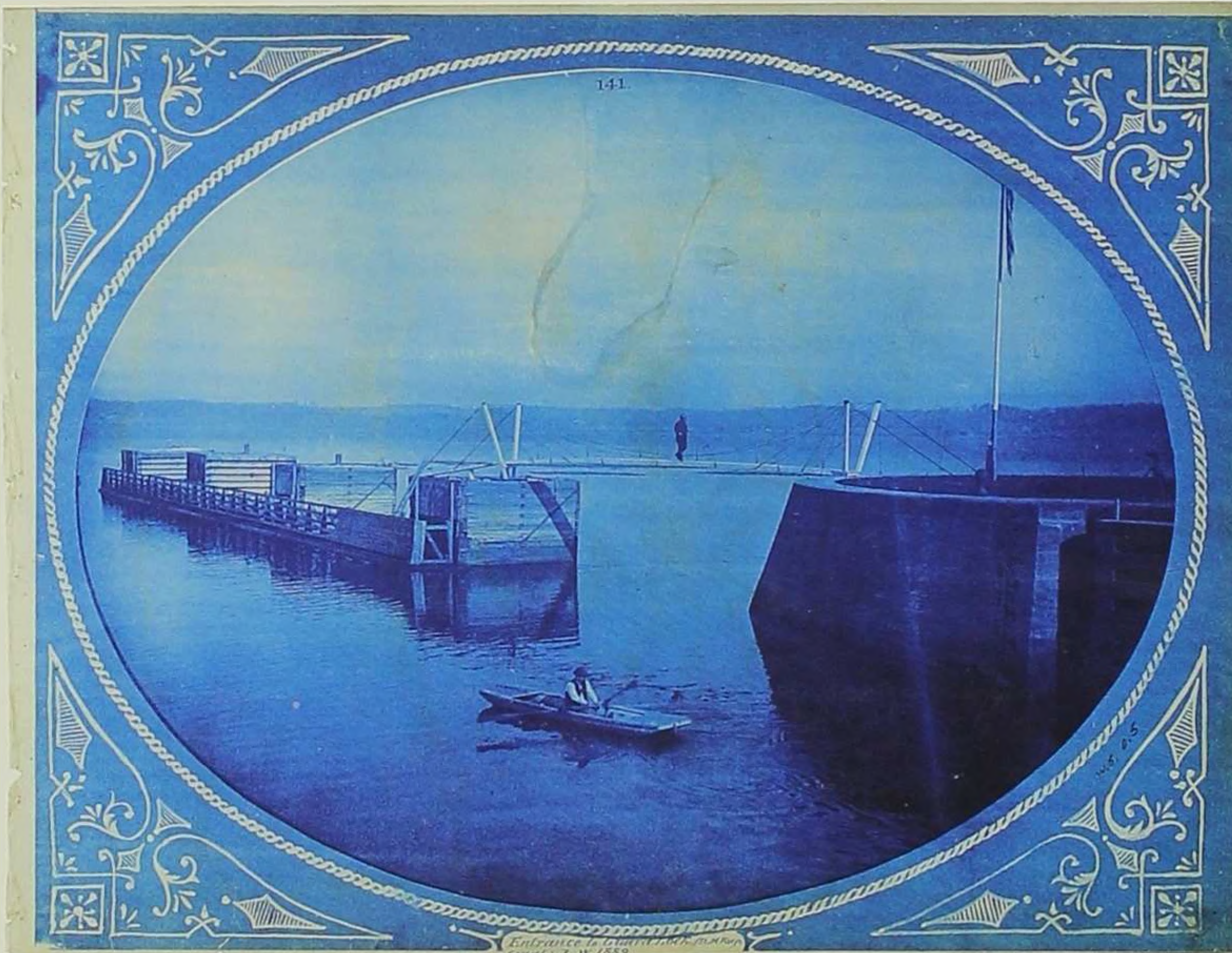
Among the millions of items in the collections of the State Historical Society of Iowa are these examples of Thanksgiving picture postcards. Sending and collecting picture postcards became a craze around the turn of the century in America and Europe. Millions of picture postcards were printed, often on

fine color presses in Germany and England. Changes in postal regulations, the penny postage fee, and rural free delivery allowed the postcard industry to boom.

Americans used the colorful, convenient cards as an easy way to send quick, brief messages to friends and family, either across town or across the nation. George and Carl Unrath of Iowa City received these three cards, all with the customary message on the back to not overeat.

When World War I started, the postcard craze began to wane. ❖





Brilliant in the characteristic Prussian blue of 19th-century cyanotypes, this photograph captures a quiet scene at the guard lock of the Des Moines Rapids Canal near Montrose, Iowa, in 1885. Increasingly in that century, the Mississippi River bore the signature of the U.S. Army Corps of Engineers, as the Corps undertook massive efforts to make the river more navigable. Corps draftsman Henry Peter Bosse photographed those changes, including the scene above.

Front cover: Bosse stood on the riverbank to photograph the Corps of Engineers' sidewheel snagboat *U.S. General Barnard*. Essential to safe navigation, snagboats patrolled the river, removing dangerous obstructions. Mark Twain called it "pulling the river's teeth."

Bosse's image lays out the process: As the boat's officers and pilot look on from above, the deck crew rigs the block and tackle, adjusts snubbing lines, and positions the A-frame and Sampson chain to raise the snag at the bow. Then the ground crew in the small yawl in the foreground takes over—chaining the snag to the A-frame, and cutting the tree into manageable sections that the deck crew will bring on board and later deposit on the shore. More of Bosse's river photography appears inside this issue.

