

CATER TO THE CHILDREN

The Promotion of White Lead

The girl and boy felt very blue
 Their toys were old and shabby too,
 They couldn't play in such a place,
 The room was really a disgrace.
 But all at once they chanced to spy
 The Dutch Boy Painter passing by.
 "Oh Mother!" each one cried with joy,
 "Please let us play with that nice boy!" . . .
 "This famous Dutch Boy Lead of mine
 Can make this playroom fairly shine
 Let's start our painting right away
 You'll find the work is only play."

(National Lead Company, *The Dutch Boy Conquers Old Man Gloom*, 1929)

The response by the lead industry to reports on the dangers of lead was a cynical thirty-five-year advertising campaign to convince people that lead was safe, and the most insidious part of this campaign was the industry's marketing to children. Beginning in 1918, just as the studies of the Harriet Lane Home in Baltimore confirmed that lead paint was a danger to children, the industry undertook a sustained advertising and promotion campaign designed, in the words of National Lead's trade magazine, *Dutch Boy Painter*, to "cater to the children"¹ while convincing their parents and the public health community that lead "helps to guard your health." This elaborate and decades-long public relations campaign was intended to shape the public image of lead, emphasizing its "healthful" qualities and suggesting that it was essential for the social and economic progress of the nation.

In ads throughout much of the first half of the century, National Lead continually marketed not only its individual products, but also lead in general. A series of advertisements in *National Geographic* in the early 1920s extolled lead's critical place in modern American life. Lead, used in the production of fertilizers and insecticides, would protect customers "from

Cater To The Children

Do you make it a point in your store to show courtesy to your youthful customers? Do you give them the same consideration and attention that you do the older folks, or do you brush them aside as of less importance?

Have you stopped to think that the children of today are the grown-ups of tomorrow and that a child is particularly quick to remember a kindness and slow to forget a slight or an injustice?

A busy parent sends a child—perhaps a shy little girl—to make a purchase. If there is a choice of stores, the child naturally makes a practice of

going where she is made to feel welcome and where she is waited on promptly. She wins approval for doing her errand quickly and it takes less time from her own interests.

This is one of the seemingly small matters which many successful merchants consider worth attention.



5. Cater to the children: From 1906, when the National Lead Company adopted the Dutch Boy logo, children were a central element in the company's advertising campaigns. Source: *Dutch Boy Painter* (January/February 1918), advertising section.

famine" and keep "the wolf from the door."² In another ad directed at the new automobile-buying public, National Lead explained how important lead was in the production of every part of the car—in its batteries, radiators, lightbulbs, gas tanks, gasoline, even tires.³

Lead was presented as integral to the scientific revolution that was transforming the very way Americans saw the world. It was used in optics—ordinary cameras and eyeglasses as well as in "lens-making [which] has made the planets in the universe objects as familiar to astronomers as are the chickens in a barnyard to a farmer's wife." Likewise it contributed to our ability to see the smallest microorganisms. "With the help of magnifying lenses man has developed the serums that protect humanity against diphtheria, typhoid, and other diseases."⁴ In all of these ads, the objective

was to extol the benefits of lead in general and to convince the public that they would really feel the loss if lead in paint were eliminated: "It is in paint that lead would be missed the most. No matter where you go you can see and touch this important product."⁵ No mention was made of the dangers of lead—that workers were poisoned, children died, women miscarried, people were affected by convulsions or palsies.

National Lead's ad campaign was also designed to promote its own line of Dutch Boy white lead paint. National Lead's logo of the little Dutch Boy, sitting on scaffolding with a paintbrush in one hand and a bucket of paint beside him, became a part of American consumer culture, appearing in thousands of issues of popular and trade magazines from *Good Housekeeping* and *Better Homes and Gardens* to *Lead and Painter and Decorator* throughout the early decades of the century. (Also appearing frequently was Sherwin-Williams's "cover-the-earth" logo: a can of paint pouring over the entire world.)

The early twentieth-century demographic movement to single-family homes, often on the fringes of growing cities, was accompanied by uncertainty about the way one was to function in these new environments. Most of America's new suburbanites, previously apartment dwellers, had little experience with maintaining a lawn, garden, and home. The lead paint industry wasted no time in seizing this enormous marketing opportunity.⁶ In brochures, booklets, and advertisements, the industry dispensed tips on the fine points of middle-class living. In a booklet titled "Decorating the Home," the National Lead Company illustrated "up to the minute effects obtainable with white lead paint." The booklet sought to portray the role of paint in both the traditional and the modern home. The cover showed a grand house surrounded by huge trees and a well-manicured garden. In the first few pages, illustrations of Tudor, colonial, and southern colonial exteriors and interiors suggested stability and tradition: the handsomely painted cornices and trim, the fireplace, with a model schooner sitting on the mantelpiece, a picture of a bearded patriarch hung over a crammed bookcase, a room filled with Victorian furniture.⁷

Modern homes, the captions informed readers, were equally in need of lead paint, particularly the Dutch Boy brand. National Lead informed the new homeowner that even the "bungalow type of home depends largely on its surroundings." "To make it stand out, the color scheme selected for its decoration should usually offer a striking contrast to the surrounding houses." The booklet sought to answer questions for new homeowners: "What color scheme should I select to bring the interior walls of my home into harmony with the furnishing and hangings of the



6. *Lead* magazine cover. This idealized scene of a family in their living room tells the reader that the "New American" home can be covered in white lead. Source: *Lead* 6 (January 1936).

various rooms? Can I obtain . . . washableness, sanitary qualities, and rich texture? What paint is the most economical, offers the most in looks and surface protection?"⁸

Most of the book focused on interior design and the use of color. On walls, floors, and ceilings one should use "delicate, neutral tones, with ceilings lightest, walls darker, floors darkest, and trim either a deeper or lighter shade than the side wall color." The color illustrations in the book told how to finish one's home in order to "create a happy state of mind." Paint

became intimately linked with middle-class status, success, and stability. "For the decoration of the living room walls, tans, medium brown, warm gray, old blue, gray-green, and other soft colors are excellent," National Lead advised. Other examples of a bedroom, living rooms, and hallways completed the illustrations.⁹

National Lead cleverly appealed to the new middle class's aspirations to imitate the lifestyle of the wealthy. "Interior finishes once found only in the houses of the rich" were "now made available for every home by white-lead and flatting oil."¹⁰ Ads by National Lead in the *Saturday Evening Post* and *National Geographic* stated: "Up to a short time ago such handsome finishes were a luxury that only the wealthy could afford. Today, however, a new flat paint puts similar interior finishes within the reach of all, not only for woodwork but for walls."¹¹

Similarly, the industry recognized another potential market in the rising class of apartment builders, owners, and renters who would be replacing old-fashioned wallpaper with paint. Ads for Dutch Boy showed interiors of the Bryn Carlton Apartments in Los Angeles, all "decorated with Dutch Boy Lead Mixing Oil and Dutch Boy White-Lead." The lead industry positioned ads in *Modern Hospital, Buildings and Building Management, Hotel Management, National Real Estate Journal, Building Modernization, Architectural Record, and Architectural Forum*—publications that would reach builders, decorators, and managers in hospitals, hotels, and apartments.¹² The *Dutch Boy Painter*, National Lead Company's trade magazine, which regularly reached 95,000 dealers and housepainters, became an extremely valuable place to advertise white lead paints and colored pigments for interiors.¹³

Even in the 1930s, when the industry felt under siege from continuing reports of childhood poisonings from woodwork and interiors covered with lead paint, the industry continued its advertising campaign. In a National Lead promotional booklet titled "The House We Live In," the company called upon its readers to consider that white paint was not the only choice one had. In the section "What Color for the Woodwork?" the booklet suggested that woodwork could have "deeper tone" or a variety of decorative options of the consumer's or the interior decorator's own choosing.¹⁴ By promoting lead paint for interiors, through pictures of entrance halls, living rooms, woodwork, dens, dining rooms, and kitchens, the industry reminded the reader of paint's versatility. Lead paint was recommended even in children's rooms and nurseries.¹⁵ Paint was a flexible, versatile, durable, economical, and all-purpose wall covering that provided the consumer with the ultimate in hygiene, choice, protection, and modern

convenience, the promotions asserted, never hinting that their product caused deaths, convulsions, and brain damage in children in Baltimore, Boston, and elsewhere.¹⁶

The company continually linked its product to purity and whiteness, reminding customers that no other paint could possibly match “pure white lead” for hygienic qualities. White surfaces were thought to be more hygienic than darker surfaces. White tile in the bathroom and white walls in kitchens and other areas of the house were stressed, those areas being especially prone to lurking germs that carried diseases.¹⁷ Americans developed an “obsession with whiteness,” equating it with cleanliness and perhaps with national purity, leading immigrants and second-generation Americans to embrace white. “In those days, them people believed in white wood,” Nancy Tomes quotes one working-class daughter of immigrants as saying. “If it wasn’t white, Grandma would hollar [*sic*].”¹⁸

Purity, whiteness, and paint were linked with efficiency and professionalism as well. The *Carter Times*, the trade publication for the Carter White Lead Company, which later merged with National Lead, suggested that the use of “pure white” would enhance business and reassure customers. Offering the example of a plumbing firm in a western city that had sought the advice of an efficiency expert, the magazine advised readers to “paint your shop pure white, outside and inside; dress your employees in white with white shoes and white caps, give them white canvas bags, in which to carry their tools and let them wear these white clothes while at work, not merely going to and from a job. Advertise yourself as ‘The White Plumber.’”¹⁹

The image of purity was particularly appealing to some readers’ nativist feelings. Many of the companies’ products were used with tints and coloring, as we noted above. But, by emphasizing the underlying whiteness of lead paint, the companies were playing with cultural biases, namely the prevailing culture of racism in America. “White is associated with the Aryan race, and its members, vain as they are, naturally assume that no other hue is quite as honorable,” explained one commercial art booklet in the 1930s just as Adolf Hitler was consolidating power in Germany. In the United States, becoming “white” was a critical component in immigrants’ assimilation. “To say that a man is white,” the booklet asserted, “is an Americanism.”²⁰

Middle-class consumers who could not afford an army of servants to clean walls or maintain the house would, advertisers hoped, be swayed by the notion that “cleanliness depends upon washability and consequent freedom from dirt and other impurities. Economy has to do with cost and

years of wear." These "results are best reached by the use of paint made with pure white-lead."²¹ Throughout the Great Depression and World War II, advertisements promoted the virtually unlimited uses of lead paint. "White-Lead Lasts!" screamed one such ad. "'The more lead the better the paint' is an axiom that the paint trade and public accept without question."²² When you "step up the white-lead in your formula . . . you automatically step up the quality and durability of your paint," the industry boasted.²³

Although one consumer advocate, as early as 1915, was quite clear about lead's toxicity, the truth couldn't compete with the public relations campaign waged by National Lead and the Lead Industries Association (LIA). Harvey W. Wiley, the former head of the Bureau of Chemistry of the Department of Agriculture and later with *Good Housekeeping* magazine, where he established the Good Housekeeping Seal of Approval, discussed the differences between wallpaper and paint. He pointed out that "paint containing lead at once sounds its warning. As a matter of fact, lead is a subtle poison and, above all others, a cumulative one. . . . Thus, a zinc paint, from a sanitary point of view is better for indoor use."²⁴

SOWING THE SEEDS OF MORE BUSINESS

Despite the accumulating evidence that lead-based paint put children at risk for seizures and death in their very homes, the industry still saw no reason to warn parents. In fact, in the late 1910s and early 1920s, the industry commenced a more troubling advertising campaign aimed at capitalizing on the popularity of National Lead's little Dutch Boy. The campaign stressed that lead was a benign product that adults could use in creating a happy environment for their children. The campaign was also targeted at the children themselves. Through the clever marketing of an assortment of giveaways, rhymes, and games, lead found its way into the hearts and minds of children and therefore the next generation of customers—that is, if they survived their childhood exposures to lead-based paints. By being associated with the cheerful Dutch Boy, dressed in workman's garb, lead could be seen as useful, efficient, and benign. The Dutch Boy's varied activities alerted children and parents alike to the endless possibilities of lead paint. The activities of National Lead were part of a much broader trend within American industry in general and the paint industry in particular to increase sales by marketing to children.²⁵

National Lead was the most aggressive of the pigment manufacturers in promoting the use of lead in children's toys and games, reminding

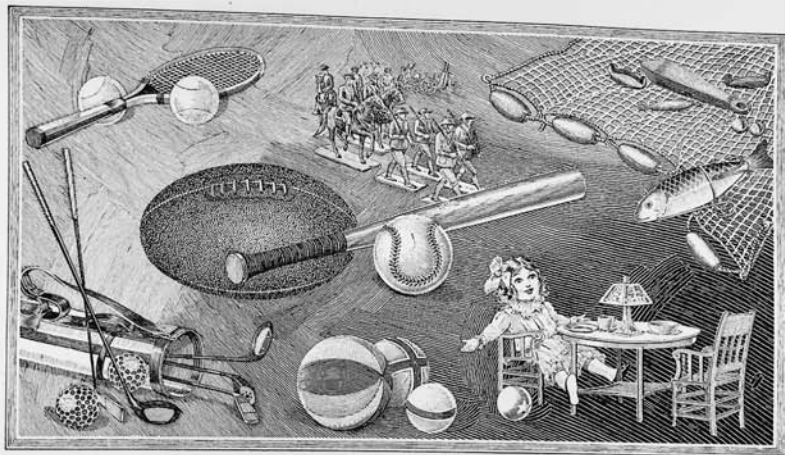


7. Santa Claus. This cover of the National Lead Company's trade magazine conveys the message that children can be encouraged to use lead paint on toys. Source: *Dutch Boy Painter* (December 1928).

customers of the qualities of lead that made it most useful. It was malleable, heavy, and resistant to rust and mold, giving substance and shape to toys. In one ad, the company bragged that “lead takes part in many games,” detailing the ways that lead was used in baseballs, footballs, rubber balls, golf clubs, and fishing sinkers. Lead was also an essential part of toys: “The little boy’s eyes shine with excitement as he takes his new lead soldiers out of the box on Christmas Day,” National Lead told its customers. The boy would not have to worry about rust or mold, the ad assured the parents. Meanwhile “his sister peacefully plays with her new dolls with their lead-weighted eyes and her miniature furniture and other toys often made of lead.”²⁶ Another ad celebrated the advantages of lead in shooting, always a fascination for young boys and older sportsmen. Lead’s “great weight in minimum bulk” made bullets “pierce the air with unswerving velocity.”²⁷

National Lead’s marketing of toys and sporting goods was not incidental, but part of an intentional campaign to make palatable the buying of lead products for children and to influence the next generation of consumers. In a promotion to paint distributors, the company advised store owners “Do Not Forget the Children—Some Day They May Be Customers.”²⁸ It urged dealers to hand out a “children’s paint book,” which carried a “message to the grown-ups, while its jingles and pictures amuse the little ones.” The paint books, a series of “Paint Book[s] for Boys and Girls,” were to be handed out “to the little ones in store, [or] mailed out to them, or used in prize contest[s].”²⁹ (“Paint books” were booklets devoted to pictures—mostly featuring the little Dutch Boy—that could be colored in with water paints that were included in the books.) Filled with rhymes and poems and accompanying drawings, they promoted just the sort of parent-child read-aloud experience that is so much in vogue today—except for the fact that the subject matter valorized an insidious poison.³⁰

One paint book, *The Dutch Boy’s Lead Party*, extolled the advantages of white lead over nonleaded paints. Its cover showed the Dutch Boy, bucket and brush in hand, looking at lead soldiers, lightbulbs, and other members of what the paint book called the “lead family.” Throughout the booklet the Dutch Boy carries a bucket inscribed “Dutch Boy White Lead.”³¹ The National Lead Company explained to parents that “the drawings afford [the child] pleasure,” for the “story of lead, told in rollicking jingles,” was meant to “capture his interest.” But, again, the book was intended to do more than merely entertain the child; inside its pages there was a booklet for parents “so that a decisive paint message is placed in the hands of both



Lead takes part in many games

L EAD whistles back and forth in every play on the baseball diamond. It is at the bottom of every football scrimmage. It leaps back and forth across the tennis net. Lead influences every stroke the golfer takes, and is the fisherman's helper in making his catch.

How lead gets into these sports

Wherever toughness is required in rubber, lead is added to it. Thus lead in the form of litharge—or red-lead, that other lead oxide—is in the rubber core which is in every high-grade baseball. It helps to make the rubber bladders of footballs and basketballs, and is in tennis and other rubber balls.

Lead is also in many baseball bats and in the heads of wooden golf clubs, because it adds weight and helps to balance them. Pulverized lead is used in some golf balls to give them the necessary weight.

Lead helps the fisherman

Lead sinkers are used in fishing to carry the hook down to the desired depth. The heavy weight of lead for its bulk makes it the proper metal to use. And it will not rust.

This metal often covers the shanks of fish-hooks and weights down large fishing nets.

Lead in the nursery

The little boy's eyes shine with excitement as he takes his new lead soldiers out of the box on Christmas Day. Made of lead, they will not rust or mold as did the toy soldier of Field's "Little Boy Blue."

His sister peacefully plays with her new dolls with their lead-weighted eyes and her miniature furniture and other toys often made of lead. Toy-makers use lead extensively because it can be easily shaped and moulded into many forms.

"Save the surface and you save all."—*Lead's* word.

Lead for preservation

Despite the widespread use of lead in the sport and play of the world, perhaps it is in preserving and beautifying buildings, inside and out, that lead performs its most useful service. Dryness and decay deface and destroy. But white-lead paint protects from the ravages of weather.

It is false economy to put off painting houses until deterioration makes expensive repairs necessary. Hence, property owners are heeding the warning, "Save the surface and you save all."

The professional painter, careful of his reputation, uses what he calls "lead-in-oil," a mixture of pure white-lead and pure linseed oil, for outside work. He uses white-lead and flinting oil, with coloring matter added, to make a smooth, beautiful paint of any color, for interior work.

Look for the Dutch Boy

NATIONAL LEAD COMPANY makes white-lead of the highest quality and sells it, mixed with pure linseed oil, under the name and trademark of *Dutch Boy white-lead*. The figure of the Dutch Boy is reproduced on every keg of white-lead and is a guarantee of exceptional purity.

Dutch Boy products also include red-lead, linseed oil, flinting oil, babbitt metals, and solder.

More about lead

If you use lead, or think you might use it in any form, write to us for specific information.

NATIONAL LEAD COMPANY

New York, 111 Broadway; Boston, 111 State St.; Buffalo, 116 Oak St.; Chicago, 990 West 18th St.; Cincinnati, 659 Freeman Ave.; Cleveland, 820 West Superior Ave.; St. Louis, 722 Chestnut St.; San Francisco, 485 California St.; Pittsburgh, National Lead & Oil Co. of Pa., 116 Fourth Ave.; Philadelphia, John T. Lewis & Bros. Co., 437 Chestnut St.



8. Lead takes part in many games. National Lead suggests that lead is a mainstay of toys and games for children and adults alike. Source: *National Geographic* (ca. 1923).



Do Not Forget the Children— Some Day They May Be Customers

We are not even overlooking the children in our campaign for a record paint business this fall. The children's paint book, which is reproduced in only two colors above, carries a paint message to the grown-ups, while its jingles and "pictures" amuse the little ones. Moreover, in the back of the book there is a special paint message to the parents.

By all means do not hand out these children's paint books at random. One way is to hand a copy to each youngster who comes into your store *with a parent*. Parents appreciate little attentions of this sort paid their children. They like to trade at stores where the youngster is not overlooked. Another effective method is to mail the paint books to the children of prospective customers. Accompany the book with a pleasant little personal letter, working in subtly a few references to your store and the "Save the Surface" idea. There are other ways to distribute these clever little books, which you no doubt will work out to your advantage. Order a supply of these children's paint books today.



9. Do not forget the children. The Dutch Boy, carrying a bucket of white lead, reminds readers of this trade journal to court customers by offering children's "paint books." Note the stereotypical black cloud threatening the house protected by white lead paint and the Dutch Boy. Source: *Dutch Boy Painter* (August 1920), 126.

parent and child." Through the marketing campaign to children "business is built for the present and insured for the years ahead."³²

Some booklets shamelessly capitalized on universally adored stories and fairy tales by placing the Dutch Boy in them. "The Dutch Boy in Story Land" partnered the Dutch Boy with Little Red Riding Hood in defeating the evil wolf, with Alice in her Adventures in Wonderland, with Cinderella in her pursuit of a prince, and so on.³³ The Dutch Boy and his lead paint were written into even the most common events in a child's life.

Rover's house was painted white
By "NO-Lead" paint, quite clean and bright.
It was the best "No-Lead" could do—
It surely made the house look new.

But the forces of nature soon attacked the house, making it look decrepit. The Dutch Boy came to the rescue, riding a bar of lead, and saved Rover's house:

"That horse you ride is quite a steed!"
"He is," the Dutch Boy said, "indeed,
He is my Hobby—thoroughbred,
Which means my mount is thoro lead."³⁴

By the Great Depression, so much information about lead paint's danger to children had accumulated that even the LIA would acknowledge the inappropriateness of using lead paint on children's toys and furniture. Still, the National Lead Company continued in its Dutch Boy campaign to promote lead's use in children's rooms. In another "Paint Book for Boys and Girls," published in 1929, National Lead suggested that its paint "conquers Old Man Gloom":

The girl and boy felt very blue
Their toys were old and shabby too,
They couldn't play in such a place,
The room was really a disgrace.

But, just then, the Dutch Boy appears:

But all at once they chanced to spy
The Dutch Boy Painter passing by.
"Oh Mother!" each one cried with joy,
"Please let us play with that nice boy!" . . .

The little Dutch Boy tells the family that lead paint could remedy this terrible state of affairs:

This famous Dutch Boy Lead of mine
 Can make this playroom fairly shine
 Let's start our painting right away
 You'll find the work is only play.

The Dutch Boy paints the children's walls and furniture, as Old Man Gloom watches.

Then Old Man Gloom cried: "It's a fact
 That I will have to change my act.
 My work is all undone!" He said,
 "By Dutch Boy art and Dutch Boy Lead!"³⁵

The booklet shows the Dutch Boy mixing white lead with colors and painting the walls and the dresser. Finally as the children play in their bright room with a freshly painted dollhouse and rocking chair, Old Man Gloom slinks off in defeat.³⁶

Ads in professional and popular journals were also used to reinforce the image of lead as a boon to children. At every opportunity, even as the evidence of its danger to children grew, the ads sought to link lead paint to cleanliness, durability, and safety. In one of its most insidious promotions, National Lead depicted a crawling infant reaching out to touch a painted wall. "There is no cause for worry when fingerprint smudges or dirt spots appear on a wall painted with Dutch Boy white-lead."³⁷ The explicit message is that lead paint could be easily cleaned, but the equally important *implicit* message was that toddlers were safe touching, crawling, and playing near lead-painted walls and woodwork. This assurance was being offered despite the fact that the pigment manufacturers knew that toddlers were dying from chewing, sucking on, and ingesting paint from cribs, woodwork, and toys.

Even in the 1930s, the focus on children continued. To emphasize lead paint's benign qualities, National Lead depicted a child in a bathtub scrubbing himself with a brush. His Dutch Boy cap, clothes, and shoes were slung on a chair along with a paintbrush and a can of Dutch Boy All-Purpose Soft Paste. The caption read "Takes a Scrubbing with a Smile."³⁸ Other Dutch Boy ads depicted children painting houses and carrying paint. In 1930 the company bragged that its children's paint books were "good, sound advertising" and that "kids just 'eat it up.'"³⁹ The *Dutch Boy Painter*, in a 1933 article titled "Stencils—Types of Stencils . . . How to Use Them," noted that "humorous designs such as cartoons, caricatures, and pictorials . . . are for use in recreation rooms, game rooms, bars, etc. Juvenile designs . . . are, of course, for use in nurseries, kindergartens, play rooms or



CHILDREN'S PAINT BOOKLET

PARENTS are always interested in the things that interest their children. There is no question but that the Dutch Boy paint book interests youngsters. Distributing this booklet, therefore, to children in your neighborhood will bring you to the attention of their parents, identifying your store as headquarters for the Dutch Boy white-lead they see advertised in newspapers.



10. Children's paint booklet: The Dutch Boy Conquers Old Man Gloom. This advertising booklet shows how paint can be used on toys and in children's rooms to lift the youngsters' moods. Source: *Dutch Boy Painter* (January/February 1929), 20.

Give Coupon to Father or Mother



The girl and boy felt very blue
Their toys were old and shabby too,
They couldn't play in such a place,
The room was really a disgrace.



All gray and old with nothing bright,
It surely was a sorry sight,
And yet that poor neglected room
Was the delight of Old Man Gloom.

Give Coupon to Father or Mother



And as the work went on and on
The old and shabby room was gone
And sunny colors, soft and gay,
Made it a lovely place to play.



Then Old Man Gloom cried: "It's a fact
That I will have to change my act.
My work is all undone!" he said,
"By Dutch Boy art and Dutch Boy Lead!"

11a & 11b. Dutch Boy conquers Old Man Gloom, panels. These two pages promote lead paint for use in children's rooms. The first, composed of a color panel to be used as a template for the duplicate black and white panel to be colored in by the child, shows children in a gloomy room of dull colored toys and furniture. The second shows the same room after the Dutch Boy brightened it up with lead paint. Note the Dutch Boy painting the furniture and the bright toy truck and dollhouse. Source: *National Lead booklet* (1929).

Finger Prints



THERE is no cause for worry when fingerprint smudges or dirt spots appear on a wall painted with Dutch Boy white-lead. A little soap and water will remove them easily without harming the paint or marring the beauty of the finish. Painted walls are sanitary, cheerful and bright.

We carry a complete line of painting supplies including Dutch Boy white-lead, linseed oil, flatting oil, brushes and all other accessories.

Visit our store and let us help you plan your home decoration.

Dealer's Name and Address Here

No. DF-25

12. Fingerprints. This ad, one of several suggested to paint dealers, conveys to parents that white lead on interior walls is not only easy to clean but also sanitary for young children. Source: *Dutch Boy Painter* (August 1927), 117.

other places where children gather."⁴⁰ In one article in its trade magazine, *Lead*, an illustration of a model interior shows a child's nursery.⁴¹ National Lead also promoted the use of lead paint in schoolrooms, showing a teacher with a classroom of children. The text of the promotion suggested that summer was the best time to "get after the school trustees to have each room repainted" with "flat paint made of Dutch Boy white-lead and

flattering oil." Who could benefit more from a fresh coat of lead paint than "a band of husky young ones"?⁴² Many of these ads appeared in the 1920s, but some ads and promotions directed at children appeared in the 1930s when the industry claimed it was exhorting manufacturers of toys and children's furniture to stop using lead paint on their products. But it is clear that the industry continued its campaign to promote the very uses of lead that it claimed to be combating.

National Lead Company was particularly pleased with its Dutch Boy logo as a marketing device.⁴³ The broader marketing community as well admired National Lead for such effective advertising. In 1949, *Modern Packaging* noted:

The appeal [of its advertising] was particularly strong to children and the company has never overlooked the opportunity to plant the trademark image in young and receptive minds. One of the most successful promotions for many years was a children's paint book containing paper chips of paint from which the pictures (including, of course, several Dutch Boys) could be colored. A coupon in the book invited parents to write in for a booklet on house painting. The company will still loan a Dutch Boy costume—cap, wig, shirt, overalls and wooden shoes—to any person who writes in and asks for it for any reasonable purpose, and the little painter has graced thousands of parades and masquerades.

The magazine nominated Dutch Boy Paint for its "packaging Hall of Fame" in its cover story.⁴⁴

This marketing of the Dutch Boy image was seen as an essential element of National Lead Company's profitability.⁴⁵ Throughout his long and inglorious existence, the Dutch Boy sought to appeal to children at least as much as to their parents. Dutch Boy costumes, puppets, dolls, potholders, rings, and other paraphernalia were sold, lent, and given free as souvenirs to entire generations of children.

A SANITARY SURFACE WHICH BEAUTIFIES

In addition to appealing to children, National Lead aligned itself with the growing public health movement that viewed the old clutter of Victorian homes as a haven for germs and disease. The themes of order, cleanliness, and purity that were hallmarks of the efforts to reform and sanitize American life were quickly incorporated into the industry's promotional materials. Such publications as "How Paint Promotes Public Health" and the



DUTCH BOY WHITE-LEAD...



plus DUTCH BOY LEAD MIXING OIL

*Takes a
Scrubbing with
a Smile*





Here's Proof →



● This is a piece of wallboard painted with Dutch Boy White-Lead and Lead Mixing Oil. Horizontal streaks show how it was deluged with various enemies of interior paint. South shows marks completely removed by soap and water.

WHEN you want to get the most for the money you spend on interior paint, don't ask "Is this paint durable?" Say, "Is it really washable?"

Durability alone is not enough. You have probably had many experiences with paint that didn't wear off but from which marks and smudges wouldn't wash off. So repainting time came much sooner than was expected.

Flat paint made with Dutch Boy White-Lead and Dutch Boy Lead Mixing Oil has all the durability for which white-lead is famous. In addition, this paint is washable in the full sense of the word. Its beauty is not impaired by hard scrubbing. Those scrubbing really get you somewhere. Stubborn stains and dirt actually do "come out in the wash".

For proof, take a look at the test panel above. It was walked on for a week. Then it was smeared with

grease, stained with mercuriochrome, streaked with pencil, crayon and lipstick, daubed with shoe blacking. But despite this hard treatment, washing with soap and water left the panel looking as clean as when first painted.

Now consider briefly this paint's many other advantages. It has all white-lead's characteristic richness, solidity and depth, a paint of unusual beauty. Because of its excellent sealing power, it stops suction and hides fire cracks.

Finally, this paint gives you all-

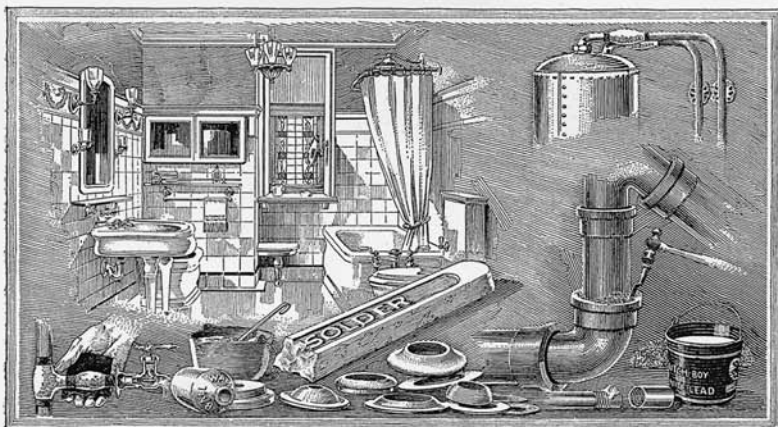
round economy. It has high coverage (300 sq. ft. per gal. on smooth plaster), mixes quickly, spreads easily. Add up those three qualities, and you have low first cost. Then add long wear and real cleanliness, and you have low cost per year.

NATIONAL LEAD COMPANY

111 Broadway, New York; 116 Oak St., Buffalo; 900 W. 12th St., Chicago; 659 Freeman Avenue, Cincinnati; 1213 West Third St., Cleveland; 722 Chestnut St., St. Louis; 2210 24th St., San Francisco; National Boston Lead Co., 100 Albany St., Boston; National Lead & Oil Co. of Pennsylvania, 116 Fourth Ave., Pittsburgh; John T. Lewis & Bros. Co., Widener Bldg., Philadelphia.



13. Takes a scrubbing with a smile. This ad, depicting the Dutch Boy taking a bath, suggests that white lead paint can be scrubbed clean. An unstated message is that children can safely come in contact with lead paint. Source: *National Geographic* 48 (April 1937), 35.



Lead helps to guard your health

YOU wouldn't live today in a house without an adequate plumbing system. For without modern plumbing, sickness might endanger your life.

Lead concealed in the walls and under the floors of many modern buildings helps to give the best sanitation.

Lead pipe centuries old

Lead, therefore, is contributing to the health, comfort, and convenience of people today as it did when Rome was a center of civilization. Lead water and drainage pipes more than 1800 years old have been found in exactly the condition they were in when laid.

In some cities today the law specifies that lead pipe alone may be used to bring water from street mains into the building.

In drainage systems are lead traps made of lead pipe bent into the shape of the letter S, so that a little water will stay in the bend and prevent gases which collect in the pipe from getting out through the house.

The malleability of lead also makes it easy to change the direction of any pipe through the use of lead bends.

Joining the pipes

A plumber easily "wipes" a joint or repairs a pipe leak with lead and tin solder. Because this alloy melts at the low temperature of 358 degrees it can be applied without melting the lead pipe, which melts at 620 degrees.

Lead is also poured into the flanges of pipe-joints to make them absolutely tight. Pipe threads are painted with white-lead or red-lead to make a tight connection. Where vibration or movement of pipes may loosen a poured joint, lead wool is used; lead shredded into threads is packed into the joint in a dense, compact mass.

Rubber gaskets and ball washers containing lead prevent leaking at joints and faucets.

Lead is used to beautify the modern bathroom. Red-lead and litharge, both lead oxides, are im-

portant ingredients in making the glossy white enamel covering the iron bodies of tub and basin and the glazed tile walls.

Lead in paint

While lead is invaluable in assuring comfort and proper sanitation, its best-known and most widespread use is as white-lead in paint. Such materials as wood would soon deteriorate unless protected with paint. And the paints that give the most thorough protection against the weather are based on white-lead.

The loss of invested capital through failure to protect the surface of property adequately has led property owners to paint frequently and well. As days and months go by, more and more of them are learning the wisdom of the phrase, "Save the surface and you save all." And they are using white-lead paint to prolong the lives of their houses.

Look for the Dutch Boy

NATIONAL LEAD COMPANY makes white-lead and sells it mixed with pure linseed oil, under the name and trade-mark of *Dutch Boy white-lead*. The figure of the Dutch Boy is reproduced on every keg and is a guarantee of exceptional purity.

Dutch Boy products also include red-lead, linseed oil, flattening oil, babbitt metals and solder.

More about lead

If you use lead, or think you might use it in any form, write to us for specific information.



NATIONAL LEAD COMPANY

New York, 111 Broadway; Boston, 131 State St.; Buffalo, 116 Oak St.; Chicago, 900 West 18th St.; Cincinnati, 659 Freeman Ave.; Cleveland, 820 West Superior Ave.; St. Louis, 722 Chestnut St.; San Francisco, 485 California St.; Pittsburgh, National Lead & Oil Co. of Pa., 316 Fourth Ave.; Philadelphia, John T. Lewis & Bros. Co., 437 Chestnut St.

14. Lead helps to guard your health. This ad shows the variety of uses to which lead is put in the modern home, and particularly its plumbing fixtures. It proudly points out that in "some cities today the law specifies that lead pipe alone may be used to bring water from street mains into the building." Source: *National Geographic* (ca. 1923).

Dutch Boy Painter advised readers that “the easiest way to get rid of germs that have nested in your house and around your premises is: Clean-up and Paint-up.”⁴⁶ Promotions emphasized that unlike wallpaper, felt, and other common wall coverings of Victorian America, lead paint could be washed, making it both sanitary and attractive.⁴⁷

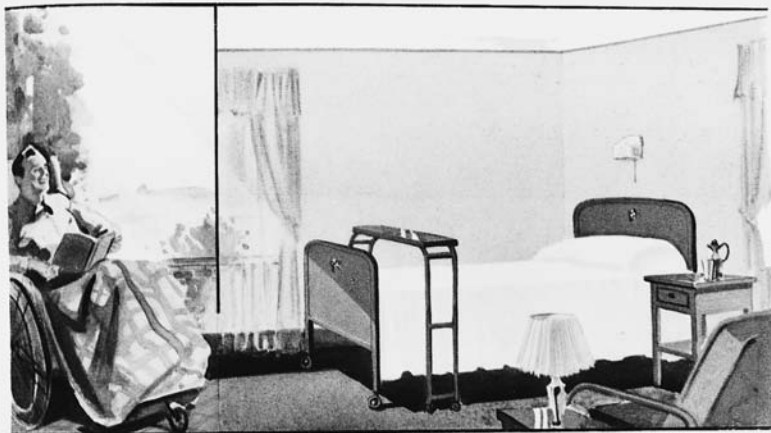
Even as clinicians were documenting that lead was a potent poison, National Lead ran an ad in *National Geographic* magazine promoting the idea that “lead helps to guard your health.” “Lead,” the ad proclaimed, “concealed in the walls and under the floors of many modern buildings helps to give the best sanitation.” “Lead pipe” was “centuries old” and was as important now as it was for making Rome “a center of civilization.”⁴⁸

Throughout the twenties and thirties, National Lead linked lead to the most modern and efficient symbols of medicine and public health. It promoted the use of lead-based paints for hospital interiors in *The Modern Hospital*, calling tinted paint “the doctor’s assistant,” because of its cheerful coloring and its ability to be washed with soap and water. The company assured customers that lead paint was “an ideal paint for hospital walls” because it did “not chip, peel or scale.”⁴⁹ National Lead’s Department of Color Research and Decoration had “already served more than 600 hospitals, recommending color treatments, supplying color samples, sketches and formulas.”⁵⁰

Paint would help patients feel better: “Walls finished in cheerful tints are sure to have a restful, beneficial influence on a patient who has not much else to look at during the long, weary days spent in bed,” the ad proclaimed.⁵¹ “Certain colors not only create pleasurable sensations but produce mental reactions which are reflected in more rapid physical recovery.”⁵² The modern hospital administrator was told over and over “that color today has an important place in reception rooms, wards, corridors, private rooms, and solariums.” Further, each room, with its own special function, demanded special attention, “exactly the [right] tints or shades.”⁵³

Yet the use of lead paint in hospitals was not without its dissenters. Even some within the paint industry worried. George B. Heckel, a former publicist for the New Jersey Zinc Company⁵⁴ and the long-time editor of *Drugs, Oils and Paints*, a trade journal of the industry, wrote in 1921: “I stake my life and my reputation in hand by stating at the outset, that I think that lead, in any form, except for plumbing, has no place inside the doors of a hospital. . . . The proper white pigments for interior hospital painting are zinc oxide, lithopone . . . and very probably newly introduced titanox. . . . All of these are white, permanent, and innocuous.”⁵⁵

Sunshine stimulates...



GET SUNNY EFFECTS WITH COLOR

● Patients who show a tendency toward depression or morbidity during convalescence are frequently stimulated by the harmony and beauty found in the colors of nature.

The yellow sunlight...the cheering color combinations in flowers, in woodland scenes...when properly combined in hospital rooms, may play an important role in hastening recovery. Warm reds and yellows are recommended for patients of certain temperaments. Restful greens are frequently beneficial to nervous individuals.

Our Department of Color Research and Decoration has conducted exhaustive studies on the uses of color in hospitals and is equipped to apply this knowledge to the individual requirements of your hospital.

Superintendents and other hospital officials, as well as architects, are invited to consult this department regarding decorative problems. This service is offered without cost or obligation.

Address Department of Color Research and Decoration in care of our nearest branch.

NATIONAL LEAD COMPANY

New York, 111 Broadway — Buffalo, 116 Oak Street — Chicago, 920 West 18th Street — Cincinnati, 699 Freeman Avenue — Cleveland, 820 West Superior Avenue — St. Louis, 722 Chestnut Street — San Francisco, 2240 24th Street — Boston, National Boston Lead Co., 800 Albany Street — Pittsburgh, National Lead & Oil Co. of Pa., 316 Fourth Avenue — Philadelphia, John T. Lewis & Bros. Co., Widener Building.



15. Sunshine stimulates. This ad shows the cheering effects of a painted hospital interior. Source: *The Modern Hospital* 38 (February 1932), 15.

It is no surprise that the sole purpose of advertising is to promote a product and thereby increase revenues for a company. But the marketing of lead paint was particularly cynical in that it sought to turn the truth on its head. Lead was a toxin promoted as healthful. Though its reputation was soiled, it was touted for its white purity; though children were being poisoned, Dutch Boy was marketed to suggest that lead paint was benign for children, even fun.

In the years after World War I, National Lead employed military themes, depicting lead paint as a soldier vanquishing enemy germs. In one piece in National Lead's magazine, *Dutch Boy Painter*, titled "Why Paint Saves Lives," readers were told that "germs have killed a vastly greater number of people than have fallen in all the wars ever fought." Doctors and scientists had devoted their lives to the "wiping out of these enemies of man," the journal proclaimed, and "one of their most practical discoveries is that paint is a foe of germs." A hospital wall "need never afford a resting place for germs" when "every inch of surface in a hospital is painted." The lessons of the home could be learned by modern hospital administrators. But the opposite was also true: the hospital could train its patients in more modern ways of maintaining health. "The lesson learned by the modern hospital can well be put into practice in the home. In the kitchen where food is prepared, washable painted surfaces are unquestionably needed; sleeping and living rooms and particularly nurseries require the same protection. The ideal feature about paint in the home of course is the fact that the same operation produces a sanitary surface which beautifies."⁵⁶

The theme of health continued to be used to promote leaded paint for the entire period between the wars. An article in *Dutch Boy Painter*, "How Paint Promotes Public Health," maintained that "a very real patriotic service can be performed by painters and dealers who get behind clean-up paint-up movements with their best efforts."⁵⁷ In 1943, Eagle-Picher advertised in *National Painters Magazine* that professional painters should use "four arguments with prospects—you'll find they really sell paint jobs." The fourth of these points was that "Eagle White Lead is just about the purest, safest, most fool-proof paint you or anybody else can use."⁵⁸ The industry appealed to government agencies to use lead paint. "Some means should be found for bringing steadily to the attention of various departments of the Government, . . . wherever competitively possible, the use of lead will be specified on Government projects."⁵⁹

The Drop of Solder...



that puts a Cow in your Kitchen Cupboard

What's the final step in protecting the purity of the condensed or evaporated milk that you find so handy?

It's a little drop of solder . . . that seals the tiny hole through which the can is filled.

Solder, too, is the vital trifle that helps keep tin containers from "leaking at the seams" . . . an unsung servant in bringing the farm to your kitchen, the oil fields to your car.

In fact, much of the modern world as you know it today would "fall apart" but for this man-made metal joiner. Electric power, from the largest to the smallest generator, would be no more. Planes, trains and ships would stop. Household appliances would not work. Automatic fire sprinkler systems would fail. All communication by radio, telegraph and telephone would be stilled.

As an example, when you dial a phone number over an automatic exchange, your personal mes-

sage passes through as many as 4000 soldered connections joining the maze of wires to intricate equipment. And they must be "good connections". That's why they're soldered . . . and why good solder must be used.

For, while man has found no convenient substitute for solder since its first recorded use in Roman days, he has learned this: not only are many different solders needed to do today's countless jobs, but the indispensable factors of each are their absolute purity and fitness for the work at hand.

Thus, such widely differing uses as holding together car radiators and joining radio tube parts, demand special, highly refined solders. And methods of application range all the way from the familiar hand soldering iron to automatic, electrical heat induction.

Equally important and varied are the special "fluxes" needed to help clean the surfaces to be joined and make the solder cling.

That's why National Lead's extensive experience with solders and fluxes for every use is such good assurance to industry of well-soldered jobs. It has resulted in a broad line, including Dutch Boy Solders and "Naico" Fluxes, as well as specialty products such as "Fluxrite", described at the lower left.

Whatever your industrial soldering needs, National Lead invites your inquiry. This one organization can supply not only the proper solder in the most efficient form and size—as well as the ideal flux to go with it—but also expert advice on the method to be used. Address National Lead Company, 111 Broadway, New York 6, N. Y.



NATIONAL LEAD Company

a great name in SOLDER and many other products

NEWEST IDEA SINCE NERO!
Since early Roman times men have known that the right way to solder is to apply the flux first. Today, Dutch Boy Fluxrite does this in the convenient new form with flux and solder combined. Now the experience with the flux is combined in precise right in the surface of the solder, so it will reach the work first and its exactly the right amount. That one of National Lead's many contributions to better soldering.



Miners, smelters, and refiners of: Lead, zinc and other ores. Manufacturers of: Lead, titanium, barium and calcium pigments; linseed and castor oils; brass, bronze and babbit bearings; sheet lead, lead pipe, solder, printers' metals and other lead products; non-ferrous alloys; oil well drilling mud materials; acid reclaiming equipment.

16. The drop of solder. Even after World War II, lead was promoted as a boon to children. Here, National Lead tells parents that lead solder is not a problem even in canning evaporated milk meant for babies. Source: *Saturday Evening Post* (February 23, 1946), 59.

THE LIA WHITE LEAD PROMOTION CAMPAIGN

During the 1930s and 1940s, as an increasing share of the pigment market was being taken over by lithopone- and titanium-based pigments, the lead industry realized that the stakes were getting higher and that a more coordinated approach was necessary. Even by the late 1920s the total consumption of lithopone was “eclipsing white lead,”⁶⁰ and by the 1930s and 1940s, mixed paints had slowly eroded the lead industry’s share of the market because consumers had begun to respond to the convenience and ease of use of these paints. But to abandon lead as a pigment entailed more than a mere switch to a new product line. Because several of the leading companies, particularly National Lead and Eagle-Picher, were vertically integrated, it meant potentially giving up related interests in mines and smelters. The LIA made one last, gasping effort to reverse lead pigment’s declining fortunes. It began the White Lead Promotion Campaign in 1938, on the eve of World War II.

The Lead Industries Association’s White Lead Promotion Campaign was the largest activity ever undertaken by the LIA to increase sales of white lead in paint. According to the LIA, white lead in paint had always been a principal use of lead. Moreover, the amount of lead sold for other major products (storage batteries, cable coverings, buildings, etc.) was “dependent almost entirely upon economic and industrial factors which can be little affected by promotion and advertising.”⁶¹ Paint, on the other hand, could be promoted through direct appeals to consumers and painters and could therefore increase lead sales.

The problem for the lead industry was that mixed paints enjoyed several advantages over white lead: the mixed-paint industry outspent the white lead industry 10 to 1 in advertising and had many more salespeople in the field; mixed paint was more convenient and easy to use, as it required no complex measuring or mixing of white lead powder with linseed or flatting oil; and finally, mixed-paint manufacturers could boast that they used pigments other than white lead. Not only did the lead industry need to do something to increase sales, but it also had to address the “morale” problem in the industry resulting from the bad press lead was receiving. The LIA thus began a vigorous, coordinated advertising campaign to make the paint and lead industries realize that “*there was something to be said on behalf of white lead after years of industry silence—and that the people who produced white lead took pride in their product.*”⁶² Fearing that “white lead is also constantly subject to attack from the health standpoint,”⁶³ the LIA, taking a page out of other corporations’ public-

relations efforts in the 1920s and 1930s to recast public views of big business, focused much of its efforts on improving the image of white lead.⁶⁴ "It was the feeling of the lead industry . . . that unless something was done to at least arrest the rate of downward tendency as far as white lead was concerned, its whole future in the paint industry would become seriously, if not permanently, jeopardized."⁶⁵ The LIA argued, "White-lead will continue to lose its position in the paint industry unless some effort is devised to offset competitive attacks and to acquaint the public widely with the merits of the product."⁶⁶ The White Lead Promotion Campaign was "an important nation-wide effort to increase the consumption of white-lead in the United States and to combat the substitution of inferior pigments for white-lead."⁶⁷

Part of the industry's task was to influence competing paint manufacturers (the zinc and titanium manufacturers) to stop attacking lead. Manufacturers who had abandoned or never used lead pigments, the LIA charged, were emphasizing the dangers of lead to the detriment of lead paint and pigment companies. The LIA claimed, "Prior to the initiation of this campaign white lead came in for specific attack in the advertising and literature of many paint manufacturers." It had, in its files, many examples of these attacks by "nationally known paint manufacturers." The campaign was judged a success by the LIA because it had "been able to induce several large paint manufacturers of national repute, to withdraw and cease all detrimental attacks of this kind."⁶⁸

Contradictory pressures faced the lead industry as it pursued the increasingly untenable promotion of a dangerous product. On the one hand, it publicly proclaimed the value and safety of its product. On the other hand, industry privately worried about the legal ramifications of promoting a poison, especially the possibility of lawsuits from consumers made ill by paint and its ingredients. In July 1939 the Executive Committee of the National Paint, Varnish and Lacquer Association (NPVLA), a trade group representing pigment and paint manufacturers (some also in the LIA),⁶⁹ reported on a meeting of its Toxic Materials Committee at which a letter had been prepared for distribution to its Class A members about its "responsibility to the public . . . and the protection of the industry itself with respect to the use of toxic materials in the industry's products."⁷⁰ In a memo marked "CONFIDENTIAL—Not for Publication" and which the NPVLA said "should be given no other publicity," the association informed its members that "the vital factor concerning toxic materials is to intelligently safeguard the public. People may feel safer in buying materials whose danger they know rather than materials unknown to

them." The committee's members believed that manufacturers should apply "every precautionary measure in manufacturing, in selling and in use where toxic materials are likely to or do enter a product." They noted that "children's toys, equipment, furniture, etc. are not the only consideration." They warned NPVLA members that toxic materials "may enter the body through the lungs...through the skin, or through the mouth or stomach." They specifically noted that lead compounds, such as white lead, red lead, litharge, or lead chromates "may be considered as toxic if they find their way into the stomach." They reproduced for their members a set of legal principles established by the Manufacturing Chemists' Association (MCA), the trade association of the chemical industry, regarding the labeling of dangerous products. The first legal principle was, "A manufacturer who puts out a dangerous article or substance without accompanying it with a warning as to its dangerous properties is ordinarily liable for any damage which results from such failure to warn."⁷¹

The MCA suggested that warnings be included even when a product was widely understood to be dangerous. Further, it noted, "The manufacturer... must know the qualities of his product and cannot escape liability on the ground that he did not know it to be dangerous." The NPVLA called on its members to make a "sincere effort in taking advantage of every possible precaution in the use of toxic materials in manufacturing, selling and in use."⁷² The next year, another trade group, the Federation of Paint and Varnish Production Clubs, acknowledged the industry's responsibilities. "Now there is one obligation that I think we really have, not only to our worker in our plant, but to our customers. We ship out into the field various things that are intoxicant or dangerous if not properly used. Good sales service should see that our customer is educated along the lines of prevention of sickness and accident while consuming our products. The manufacturer must educate the public. He can't get out of it. It is just as important to do that as to make a good product."⁷³

LIA members were actually part of this talk about responsibility to the public at the very moment that the LIA was promoting the use of white lead more vigorously than ever.⁷⁴ The LIA even promoted white lead among farmers and their children by starting a project in cooperation with 4-H Clubs. "A trial painting project had been started with Iowa's 4-H Clubs which are important key organizations for young farmers, and that this would probably spread to other states," campaign planners reported.⁷⁵ The LIA also sought to expand its markets in urban areas. In mid-October 1940 the LIA reported, "In the course of his work with government officials in the neighborhood of New York City, our representative also conducted a

survey of painting practices of 36 real estate developments. A separate report of this survey has been sent to interested members."⁷⁶ Sales representative Seldon Brown reported to the LIA of his success with the Brooklyn Brewcourt Management Company: "Through a demonstration of the true costs of WL [white lead] as compared to MP [mixed paint] for interiors, Mr. Kilman plans to use WL on several jobs and probably all future work."⁷⁷

In 1940 the campaign was expanded to encourage municipal, county, and state institutions to use white lead paint. Two representatives of the LIA, Seldon Brown and W. L. Frazee, traveled throughout the country for this purpose. Brown specifically marketed white lead paint for public schools, noting whether institutions he visited used mixed paint or white lead on both exterior and interior walls. The LIA claimed that Brown made a total of 427 calls in his first two years on the job, of which 380 were to state, county, and miscellaneous institutions. Brown would identify the person responsible for buying paint for the city or community, then the person in charge of buying paint for the school system. Brown was particularly insistent on pushing white lead for interior use. The superintendent for maintenance of Seattle's public school system was "completely sold on white lead for exteriors, but can't see [the] value of white lead for interiors and [I] was not able to convince him. It was suggested that a demonstration of white lead and flat wall paint be run for this department by a lead salesman."⁷⁸

In Dearborn, Michigan, Brown visited John Whitehead, the Board of Education's maintenance supervisor, who informed Brown that "the Board of Education gave up using white lead some years ago." Brown informed the LIA that "they were considerably impressed by our WL data and agreed to try it on interiors on the strength of this information."⁷⁹ A day later, Brown contacted the business manager for the Highland Park, Michigan, Board of Education, John Smith, who "was very appreciative of the information we gave him last summer. [He] is completely sold on WL for exteriors and as a result of our data is now experimenting with WL on interiors."⁸⁰ In Lansing, Michigan, Brown reported that Harry Chamberlain, business manager for the Board of Education, told him that the school system was "using a MP which they claimed betters WL for interior work by their own tests." Brown informed the LIA that the board would "consider running further tests due to our data in favor of WL on interiors."⁸¹

It is difficult to understand how the LIA could send Brown and Frazee to promote the use of white lead in schools and other public buildings at a

time when so much evidence existed that lead caused serious illness and sometimes death—particularly in children. The fact was that the LIA had been extremely successful in its efforts to keep the information about lead's potential dangers out of the public eye by challenging medical reports of lead poisoning and by portraying lead in its advertising campaign as a benign substance. Although other pigments were gaining in popularity because of their lower costs and greater ease of application, hard sells emphasizing lead paints' durability and long-term cost effectiveness, whether true or not, could still be successful.

Brown also reported on his ability to sell the virtues of white lead to those who knew little about it. In Flint, Michigan, the superintendent of maintenance for the Board of Education, William Barclay, was "very interested in our description of the qualities of interior WL. [He] said that he thought that WL was going out because he has heard so little about it. [He knew] nothing about WL for interiors. [But he] plans to run comparative tests between WL and present MP used on interiors."⁸² In Kansas City, Missouri, Frazee was particularly proud of his work in convincing contractors and the school board superintendent to use white lead. "I called on a number of contractors as well as the superintendent . . . whom I have known for a great many years. I made some samples with white lead for him some three years ago and they have been using lead for the past two years and will use it again this year. They use it entirely on their interior wall work and are having wonderful luck." The Lead Industries Association also worked through the New Deal's National Youth Administration "in the preparation of a teacher's training manual covering exterior and interior painting on all types of construction." They expected this manual to "be used as text material by the 8,000 vocational agricultural instructors in high schools throughout the country."⁸³

The LIA went directly to cities, hotels, and health departments. W. L. Frazee visited Little Rock, Arkansas, where he convinced a hotel manager to have "his entire hotel, inside and out, done with lead and lead reducing oil."⁸⁴ In Poplar Bluff, Missouri, he visited the manager of the "leading hotel," who "informed me that he had seen the white lead job in the Little Rock hotel and was now having the entire interior of his hotel painted with white lead, and had also started to redecorate his hotel at Sackston, Missouri."⁸⁵ In Pierce County, Washington, LIA representative Frazee visited the health department, where he "explained properties of interior white lead paint, stressing sanitary aspects of a highly durable and washable surface. This department is frequently asked for painting specifications, but

have [sic] always felt that no brand name could be mentioned However, they say that they may be able to recommend Lead Industries Association white lead specifications as they mention no one company's product."⁸⁶

In general, the White Lead Promotion Campaign consisted of an advertising campaign, the placement of articles promoting the use of white lead in trade and popular journals, and mailings to paint dealers around the country. National Lead extolled the cooperative nature of the campaign; it was "sponsored by the miner, smelter, refiner and white-lead manufacturer members of the Lead Industries Association. . . . A series of large-size advertisements in such widely read magazines as the *Saturday Evening Post*, *Colliers*, *American Home*, *Country Gentleman*, and *Better Homes and Gardens* will bring the white-lead story to the public in general and to home-owners in particular." The LIA was proud of the scope of the magazine campaign, for it would produce "67,570,526 separate messages that will be carried in the publications named."⁸⁷ The initial copy of the advertisement featured a miner as the industry spokesman, but a housepainter gradually replaced him. The ads originally promoted only white lead paste (or in dry form), but they later pushed ready-to-use and high-lead-content white paints as well.⁸⁸

For the LIA the benefits of the campaign were not simply increased sales in the short run but "the good will it is building up for lead in general," association secretary Felix Wormser reported. "I have always felt that the cultivation of good will for our metal and publicity about the indispensable work it does for mankind is something that lead needs more than other common metals because lead in many forms is constantly under attack on account of its toxic qualities. Our campaign helps to meet this issue." Wormser added, "It is also noteworthy that attacks on white lead, which was one of the reasons for undertaking our campaign, have declined greatly and that more articles of national interest, specifically endorsing white lead, have appeared in the press during the last year than for any period to my recollection."⁸⁹

Despite the best efforts of the members of the LIA, changes in paint technology were working against them. For many generations the industry had counted on the fact that consumers depended on the skills of painters trained in the exacting process of mixing, matching, and hand-painting delicate moldings, woodwork, and other exposed surfaces throughout the home. As fashions changed and large surfaces free of wood detailing, fabric, and wallpapers became popular, there was less need for skilled painters. Spray painting became feasible, and less-skilled workers could do the job. Homeowners who began fixing up their own houses became increasingly

interested in ready-mixed paints (most of which contained little, if any, lead), that required few of the skills previously necessary.

For this reason the industry sought to capture more of the ready-mixed paint market by promoting ready-mixed lead paints in small quantities. It was "one of the fundamental objectives of the campaign . . . to make white lead available in convenience or ready-mixed form to the consuming public everywhere." The LIA applauded the "recent decision of the National Lead company to join an increasing list of paint manufacturers, (stimulated by our campaign) in producing a ready-mixed white lead paint for nationwide distribution."⁹⁰

White lead was made available in more and more colors in prepared paint form. In addition, homeowner magazines ran white lead articles and in some instances asked the LIA for ready-written articles. One overall result of the campaign was improved relations with professional painters and contractors. The LIA asserted, perhaps wishfully, "A ground swell of white lead interest had been set in motion in important places affecting the consuming habits of the next generation. Vocational school instructors, 4-H club leaders and the like have eagerly received white lead promotional material and expressed a genuine desire for more."⁹¹

In 1941 Wormser reported to the LIA's annual meeting that "anxiety about [lead's] use . . . remains serious for our industry [for] hardly a day passes but what this office has to devote some attention to lead poisoning." He added, "The problem is how to obtain a better press for our products is indeed a troublesome one. Our promotional work and especially our national advertising helps to build up good-will for our metal." The LIA also acknowledged, "We have continued to keep our members posted on the most significant literature currently published about lead poisoning."⁹² Even during World War II, when restrictions were placed on linseed oil and containers used to produce and distribute lead paint, the LIA continued to extol lead's virtues in paint.⁹³

As late as 1952 the LIA promoted the usefulness of white lead as both an exterior and an interior covering. The new edition of the LIA book *Lead in Modern Industry* asserted that "white lead adds more desirable qualities to paint than any other white pigment and has practically no undesirable qualities to nullify its advantages." The book continued by saying that "the profitable application of white lead . . . is not confined to exterior use. Pure white lead paints can be utilized to advantage for interior decoration, particularly in public and traditional buildings where elaborate decoration is used and it is very expensive and inconvenient to repaint often."⁹⁴ For the first time it included a section on the "Safe Handling of Lead and

Its Products," noting that lead poisoning could occur when lead gained "entrance into the human system in measurable quantity" either through inhalation of vapors, fumes or dust or ingestion of lead compounds introduced into the mouth on the fingers." It maintained that "ingestion is by far the less important [danger] and is most often associated with children chewing on objects coated with paints containing lead." The chapter allayed readers' fears by maintaining that "since most inside paints and paints used by manufacturers on children's furniture and toys contain no lead, a hazard usually exists only if children are allowed to chew outside painted surfaces, like porch railings, or if parents inadvertently repaint furniture with outside house paint." But it failed to mention that older coats of paint were likely to contain lead and thus present a hazard. It commented on the condition of pica (which it defined as "abnormal appetite in children") and teething as possible causes for injury.⁹⁵

Even Manfred Bowditch, who became the LIA's director of health and safety in 1948 after a long and distinguished career at the Massachusetts Division of Industrial Hygiene, appeared embarrassed by the level of misinformation emanating from his association. Writing to the Ethyl Corporation's consultant, Robert Kehoe, about the new edition of the industry's flagship publication, *Lead in Modern Industry*, he apologized for the virtual absence in the book of information about the health hazards of lead and implied that this was because of the resistance of various members of the lead industry to acknowledge lead's hazards. "Before yielding to the quite natural impulse to comment caustically on the meager section" on the toxicity of lead, he begged Kehoe, "please consider that the volume represents the thinking of our 70-odd member companies." His only defense was that "the book which it supersedes, published in 1931, made no mention of the toxicity of the metal which is our bread and butter."⁹⁶

After the intense publicity generated by popular and professional articles, public health department studies, and internal correspondence objecting to the use of leaded paint for interiors, the LIA finally began to withdraw support for the promotion of lead in interior paints. In December 1952, the LIA decided to "discontinue all activities of the Association relating to the promotion of white lead in house paints." "It was apparently felt that the economic obstacles faced by white lead pigments nullify whatever technical advantages these pigments enjoy and thus further expenditures of money by the Association are not justified."⁹⁷

The LIA's decision to cease direct promotion of leaded paint for interior surfaces was one step of the industry's broader acknowledgment, however

halting, of lead paint's dangers to children and the consequential risk that the lead paint industry might not survive. Popular and scientific attention to the dangers of lead made it untenable to continue to promote lead paint. So did the move toward regulation by departments of public health and their officials, who began pushing more intensely for warning labels and outright bans of the use of lead in interior paints. Now the LIA, although no longer promoting lead paint for interior use, shifted its energy to fight any regulation that it perceived to be inimical to its interests.

Once again, it was the health studies from Baltimore that provided the most startling statistics on childhood lead poisoning and prompted other cities to conduct studies, which in turn led to regulatory activity. In 1949, Maryland's Toxic Finishes Law "made it unlawful to sell toys and playthings, including children's furniture, finished with any material containing 'lead or other substance of a poisonous nature from contact with which children may be injuriously affected,' unless such articles are so labeled as to show that the finish contains lead or other poisonous substance." The Baltimore Health Department in the May issue of "Health News" warned parents to "not buy paint for indoor use unless it is free from lead."⁹⁸ Immediately the LIA challenged the Maryland law by holding four "conferences with governmental authorities in Maryland." It claimed success for its efforts. "The campaign to remove this 1949 enactment from the statute books of the state was brought to a successful conclusion" when the governor signed the repeal, the association trumpeted to its members.⁹⁹ This was "among the most important activities" because the law was seen as "unworkable and a hardship on members and others," the LIA said.¹⁰⁰ The approach that the industry favored placed the burden for preventing lead poisoning directly on the family. "The only seemingly feasible means of coping with the childhood plumbism problem is that of parental education," it argued.¹⁰¹

In 1951, Baltimore's health commissioner adopted a regulation that stated: "No paint shall be used for interior painting of any dwelling or dwelling unit or any part thereof unless the paint is free of any lead pigment."¹⁰² The next year the LIA, acknowledging that lead was viewed as a toxic substance, conducted a survey of "State and Territorial Warning Labeling Laws," which they sent to all state health and labor departments. The reply from Arkansas, which had no warning or label laws, was telling. The director of the Arkansas Division of Industrial Hygiene wrote that the office had received "information concerning apparent epidemics of lead poisoning among children which have occurred in the Baltimore City area. We intend to inform all our state and county health workers, and our

physicians, to bring to the attention of the public the potential hazard of using lead based paints on children's furniture and toys, and on the interior of homes."¹⁰³ During this time the LIA was seeking to modify and repeal state regulations and other restrictions on the use of lead paint.¹⁰⁴

The refrain from the lead industry—that childhood plumbism was not a serious problem—had grown old by the 1950s. J. Julian Chisolm Jr., a young physician associated with Johns Hopkins University Hospital, had much firsthand experience with the group of children who by the mid-1950s were unfortunately labeled "lead heads" by the young residents at the hospital. Chisolm, soon to emerge as a major figure in lead research, took issue with the industry's casual attitude toward what was obviously a serious medical problem affecting hundreds of children in the Baltimore area. "It is believed that at present the ingestion of lead-containing paint flakes is the most common source from which children obtain excessive quantities of lead," he noted in 1956. In his study of children at the Harriet Lane Home, he had inspected sources of lead contamination and found, like physician Kenneth Blackfan over thirty years before, that the "leading sources of lead were windowsills and frames, interior walls, including painted paper and painted plaster, door frames, furniture and cribs." Throughout the "dilapidated dwellings" where young children lived, Chisolm found that "flaking leaded paint is readily accessible." And he took umbrage that the industry blamed parents for the tragedy. "While the responsibility of parents to protect their children from environmental hazards is not denied, no mother can reasonably be expected to prevent the repetitive ingestion of a few paint chips when these are readily accessible."¹⁰⁵

Also in Baltimore, Huntington Williams, the city's commissioner of health, had begun looking beyond the convulsions, seizures, and deaths of children. He noted, "Unrecognized plumbism, lead poisoning, in children may explain many obscure nervous conditions and convulsions of undetermined etiology." His conclusion: "Lead poisoning is cumulative."¹⁰⁶ New problems such as mental retardation, behavioral disorders, and learning difficulties were on the horizon and, as the LIA noted, "as our hygiene activities have expanded, the magnitude of our industry's health problems become more and more evident."¹⁰⁷ The daily press was playing a greater role in bringing lead to the attention of the general public. In one year the LIA collected "nearly 500 newspaper clippings featuring lead poisoning, often in sizable headlines." While it is unclear how many of these dealt with children, the LIA noted (internally) that "childhood lead poisoning continued to be a major problem."¹⁰⁸ Yet, despite its systematic attempt to

collect this material, the industry still opposed warning consumers of the danger that the product posed to children.

Baltimore was particularly vexing because the local health department had been so assiduous in reporting and following cases. At one point in 1949, Manfred Bowditch complained in a letter that "these young Baltimore paint eaters are a real headache."¹⁰⁹ By the early 1950s, "the alarming number of cases of alleged lead poisoning, particularly in children, which are being reported" led the LIA to systematically attend "many meetings of organizations dealing with our own health problems." These included meetings of the American Medical Association, the American Public Health Association, the Greater New York Safety Council, and the National Safety Council.¹¹⁰

In a summary of his activities in 1952, Bowditch called childhood lead poisoning "a major 'headache' and a source of much adverse publicity." He counted 197 reports of lead poisoning in nine cities, of which 40 were fatal, although he noted that this was an "incomplete" estimate, especially for New York City. In New York, 44 cases were reported, of which 14 were fatal.¹¹¹ Between 1951 and 1953, according to George M. Wheatley of the American Academy of Pediatrics, as reported in the *New York Times*, "there were 94 deaths and 165 cases of childhood lead poisoning . . . in New York, Chicago, Cincinnati, St. Louis, and Baltimore."¹¹²

The LIA was caught in a bind. On the one hand it possessed numerous reports from health departments demonstrating the widespread nature of the lead paint hazard. On the other hand, the LIA was still fighting a rear-guard action to show that the number of cases was exaggerated. To continue to do this, Bowditch confided to an industry colleague, would be "prohibitively expensive and time consuming."¹¹³ Bowditch did not dispute that childhood lead poisoning existed as a result of children ingesting lead-based paint. But rather than concentrate on how to prevent lead poisoning—a first step toward which would be the warning of parents—Bowditch believed the LIA should focus on "securing more accurate diagnosis of lead poisoning or face the likelihood of widespread governmental prohibition of the use of lead paints on dwellings."¹¹⁴ Robert Kehoe admitted in a personal letter that the problem was an issue not of diagnostics, but of the paint itself. If the elimination of lead paint "for all inside decoration in the household and in the environment of young children . . . is not done voluntarily by a wise industry concerned to handle its own business properly, it will be accomplished ineffectually and with irrelevant difficulties and disadvantages through legislation."¹¹⁵

By the mid-1950s the LIA was under siege.¹¹⁶ There was an overwhelming amount of medical evidence concerning the dangers to children of lead-based paint. Reports of lead poisoning of children flowed from Baltimore and other cities. There was a plethora of articles in popular publications concerning the dangers of lead-based paint to children. Internal correspondence from leading lead authorities around the country declared that lead paint was a serious hazard. Even in the face of all this, the industry still refused to remove lead from paint or to warn consumers of the dangers of lead.

Many lead pigment manufacturers, however, had already developed new product lines of leadless or low-lead-content paints. National Lead promoted two lines of paint for interiors: one of them, known as the "black and yellow line" (for the design of the cans the paint was packaged in), contained the traditional white lead pigments and was earmarked for professional painters. The "blue and white line," containing mixed paints, was aimed at consumers. Its brand name, *Wonsover*, enticed homeowners with the ease of doing their own painting, implicitly promising it would cover in one coat. Many companies had produced mixed paints for decades, but for the National Lead Company to market them under the Dutch Boy brand was a dramatic concession, particularly because the company had long fought to maintain "pure white lead" as the industry standard. Even this concession was not total, however. Some of the new line also contained lead, though in far lower amounts than the traditional line,¹¹⁷ despite Wormser's public assurance in 1946 that "so far as white inside paint is concerned there is no lead in it."¹¹⁸ Likewise, in the early 1950s, Sherwin-Williams sold "House Paint" labeled "For Exterior or Interior Use" that contained from 14 percent to 23 percent lead carbonate and/or lead sulfate.¹¹⁹

The development of new mixed paints came amidst the growing recognition among lead producers that the market for lead was changing dramatically. A mere twenty years earlier, in 1929, white lead in paint accounted for 12 percent of lead's market while lead for gasoline, tetraethyl lead, was "a fraction of a percent." By the late 1940s the industry was much less dependent upon paint as an outlet for its product, relying after the mid-1920s on storage batteries instead. By 1949, white lead pigment accounted for less than 3 percent of the market, while tetraethyl lead consumed 11 percent and its use was increasing. Put differently, in 1929 the per capita consumption of lead in the United States was 15.9 pounds, with 2 pounds coming from lead paint and less than 0.1 pound from gasoline. By 1949, Americans were consuming about 11.6 pounds per person, and of that less than a third of a pound came from paint and 1.3 pounds from

gasoline. Over the next generation, the emphasis of the lead industry in general and of the LIA specifically shifted to promoting the use of lead in gasoline and generally fighting a rear-guard, and ultimately doomed, action to maintain what remained of the lead paint industry.¹²⁰

In 1953 the LIA began working with the American Standards Association (ASA), a group made up of representatives from the American Academy of Pediatrics, the American Medical Association, the American Hospital Association, the American Public Health Association as well as the LIA, the NPVLA, the Association of Casualty and Surety Companies, among others, to develop a voluntary standard to "Minimize Hazards to Children." A subcommittee made up of representatives of the LIA, National Lead Company, DeVoe and Raynolds Company, Sapolin Paints, DuPont, New York State Department of Health, the American Academy of Pediatrics, and the New York City Department of Health began to draft a standard that, "would not cause the paint industry any trouble."¹²¹ A representative of Union Carbide chaired it, and its alternates were representatives of Sherwin-Williams, Glidden, and Benjamin Franklin Paint.¹²² The ASA standard that was adopted reflected a growing consensus that paint used for interiors or any surface that children might chew on, should not contain more than 1% lead of its total weight. John H. Folger, who represented the NPVLA on the ASA Committee, told the NPVLA that the standard was "very innocuous."¹²³ The new standard would be used to combat local legislation, both in New York and elsewhere, that was seen by the industry as more stringent.

It was not until the early 1950s that the industry began to pay serious attention to another issue—the question of labeling lead paint as a hazardous material. In the spring of 1953, following reports of dozens of cases of lead poisoning in New York City, the city's Health Department began considering legislation to require warning labels that would identify lead as a "poison" or "dangerous."¹²⁴ Throughout 1954, a variety of city, state, professional, and industry groups addressed the issue of what type of warning New York City should require on lead paint sold in the city. In general, the city officials wanted warning labels on any paint containing more than 1 percent lead. In May 1954 the Department of Health of New York City "asked that a draft of a proposed sanitary code change be submitted to it in connection with paints and coatings containing excessive amounts of lead." It proposed the following wording: "No person shall have, keep or offer for sale in the City of New York any liquid coating material or paint which contains lead compounds of which the lead content

...is in excess of 1%." It also required a warning label: "Warning: This paint contains lead—unsafe—poisonous—and should not be used to paint children's toys or furniture, or interior surfaces in dwelling units which might be chewed by children."¹²⁵

Some of the pigment manufacturers reacted negatively to the proposed warning. In 1953 and 1954 the LIA worked closely with the NPVLA to, in the LIA's words, "combat these moves" by the city.¹²⁶ Paul Whitford, a manager in the Eagle-Picher Company, wrote to the NPVLA that "the proposed section of the Sanitary Code, ... demands the immediate and concerted effort of our committee to prevent the enactment of this legislation. The adoption of this proposal by the Department of Health by the city of New York, places an unprecedented stigma upon the Paint Industry by demanding the labeling of innumerable shelf goods and specialty products as unsuitable for use."¹²⁷ (Four years later, in 1958, when New York City was considering banning the use of lead paint on the interiors of buildings and apartments, Whitford would state that warning labels are "certainly in order and if properly enforced should remove much of the stigma and unfavorable publicity within the industry arising from the nutritional deficiencies of children."¹²⁸) The NPVLA pushed for a very different warning that emphasized paint's flammability as well as its dangers from ingestion. While explicitly saying, "Do not apply on toys, furniture or interior surfaces which might be chewed by children," the word "poisonous" was conspicuously absent from its proposal.¹²⁹ The American Medical Association suggested in September of that year that the following warning be put on all paints with lead: "WARNING: this paint contains an amount of lead which may be POISONOUS and should not be used to paint children's toys or furniture or interior surfaces in dwelling units which might be chewed by children."¹³⁰

On October 29, 1954, the New York City Department of Health adopted a warning label for paints with lead, but without the words "poison" or "poisonous." The NPVLA noted in a confidential internal document that although "originally the word 'poison' was proposed for the label of paints containing lead," it had been removed and the final wording was the "result of cooperation between the New York City Health Department officials and representatives of the New York [Paint Varnish and Lacquer Association] and National Paint, Varnish, and Lacquer Association."¹³¹

The LIA would also claim some credit: "The initial proposal of the New York City Health Department to require a poison label on all paints containing any lead whatsoever was ultimately modified through the estab-

lishment, at our instance, of a committee of the American Standards Association which evolved a standard permitting up to one per cent of lead in paints used on surfaces which 'might be chewed by children,' thus allowing the inclusion of lead dryers in such paints. The 'poison' wording was also modified."¹³² They were particularly proud that "modification of the New York City lead paint labeling regulation was secured by means of American Standard Z66.1, prepared by a committee of the American Standards Association, sponsored by the Lead Industries Association."¹³³

The industry's activities in New York paralleled its broader strategy throughout the nation. The National Paint, Varnish, and Lacquer Association was particularly concerned because "there is much agitation by various groups throughout the United States which could result in conflicting legislation by individual states and municipalities on methods of labeling paint products."¹³⁴ T. J. McDowell, of the NPVLA, proposed a "Suggested Course of Action" regarding labeling laws in which he reviewed the pressure that had been exerted on industry to become more responsible: "The legislators from various states are constantly being contacted by pressure groups to pass a law—any law will do—to eliminate this hazard to our children. . . . It appears that the best course to pursue from the standpoint of the industries interested in the use of lead as a pigment and otherwise is to launch a campaign of education directed at the legislators to forestall any further unnecessary legislation, at the pressure groups who are promoting the passage of these laws, at the user and sellers of these products so that the proper use is made of them and the hazards reduced to a minimum and most important of all at the general public to remove the false impressions from their minds and educate them in the proper use, the precautions to be taken and the real causes of these unfortunate occurrences."¹³⁵ Labeling was to be a last resort and then only on a voluntary basis.

But the LIA made it clear it would not concede any action it did not need to. Bowditch told Felix Wormser, now an assistant secretary in the Department of Interior in the Eisenhower administration, that he had made every effort to cultivate the "good will" of public health officials "and get them into a receptive frame of mind as to our viewpoint." Bowditch bragged that he believed that his efforts had "paid off, as, for example, in Chicago, where we have been able to stave off a paint labeling regulation like that here in New York."¹³⁶ (It bears mentioning that Wormser's allegiance to the lead industry was unaffected by his new position in the Department of Interior. On receiving the appointment, he wrote

to the president of St. Joseph Lead that in his new position he could “do more for the country, for the President, and for my company.”¹³⁷ In 1957 he resigned under a cloud as it was revealed that St. Joseph Lead Company, to which he was returning, had benefited from government largesse during his tenure. In 1962 new charges were raised—that Assistant Secretary Wormser had unnecessarily bought huge quantities of lead and zinc for the federal government, although none was needed. The lead companies received a windfall while the lead market had been sagging.¹³⁸)

In 1958 New York City proposed a revision of its regulation of the use of lead paint containing more than 1 percent lead, prohibiting its use on interior walls, ceilings, or windowsills of any apartment or room, tenement, multiple dwelling, or one- or two-family home. (This was passed in 1959 and went into effect in 1960.) The reaction of officials in the NPVLA was predictably ambivalent. E. P. Hubschmitt, on the NPVLA’s Subcommittee on Uniform Labeling, continued to maintain, despite the mounds of evidence, that the ingestion of lead was not a serious hazard. In a review of the proposed code he told members that “many persons of note, . . . question the hazardous effects of lead by ingestion. I can recall that there is in fact very little evidence, indeed, in the medical reports to support instances of death by ingestion of lead.”¹³⁹

Even though the proportion of lead in paint had been dramatically reduced in the early 1950s as titanium, zinc, and water-based vinyl coverings took over a larger share of the market, the industry continued to be vigilant to any attempts to label its product a danger.¹⁴⁰ When forced to accept the reality of warning labels on paint products, the association knew labels were better than other kinds of regulation: “Every effort is being made to confine . . . regulatory measures . . . to the field of warning labels, which, as applied to paints are obviously less detrimental to our interests than would be any legislation of a prohibitory nature.”¹⁴¹ In 1958 there was what the association called a “veritable wave” of precautionary labeling legislation proposals. The NPVLA maintained that “watching for adverse legislation in our many states is an important part of our work and one in which the help of our members . . . is again and earnestly asked.”¹⁴²

Even through the mid-1950s the industry continued to deny responsibility for a situation that had been developing for nearly a half century. Its long-term claim that the industry had done everything it could to be responsible seemed fatuous in view of the fact that the emergency wards and hospitals of cities and communities were treating more and more children poisoned by lead.

Nevertheless, the LIA still reacted to reports of sickened children by blaming the victims and their families. In 1956 Bowditch, in a private communication to Felix Wormser after an article appeared in *Parade* magazine, remarked that "aside from the kids that are poisoned . . . it's a serious problem from the viewpoint of adverse publicity." The basic problem was "slums," and to deal with that issue it was necessary "to educate the parents. But most of the cases are in Negro and Puerto Rican families, and how," Bowditch wondered, "does one tackle that job?"¹⁴³ Bowditch was a bit more discreet in his statements to the LIA's general membership. At the association's 1957 annual meeting, he argued that "the major source of trouble is the flaking of lead paint in the ancient slum dwellings of our older cities"—though in saying this he obscured the fact that lead had been a major component of the paint applied to buildings as recently as a decade before. "The problem of lead poisoning in children will be with us for as long as there are slums," he argued.¹⁴⁴ But once again, as Wormser had done before him, he absolved the LIA of responsibility, arguing that the real problem lay with ignorant children and parents. "Because of the high death rate, the frequency of permanent brain damage in the survivors, and the intelligence level of the slum parents, it seems destined to remain as important and as difficult as any with which we have to deal."¹⁴⁵ But who was responsible for this condition and how could it be addressed? Bowditch was not optimistic: "until we can find means to (a) get rid of our slums, and (b) educate the relatively ineducable parent, the problem will continue to plague us."¹⁴⁶

Despite the assertions of the industry that lead poisoning would vanish when "ancient slums" were replaced with newer dwellings, evidence that lead was still in new paint continued to appear. New York's Department of Health "disclosed [in 1973] that ten companies are selling highly leaded paints in violation of the New York City Health Code." In a survey that tested "one hundred and thirty-eight cans of interior paint from 23 companies . . . for lead content, twenty-four cans from 10 companies were found to be highly leaded."¹⁴⁷ Even painted toys continued to have lead in significant quantities. In 1957, Robert Kehoe analyzed toys from a variety of companies, including Mattel and Marx, two of the nation's largest manufacturers, and found that the paints that one Chicago toy manufacturer used on its red trailer trucks contained over 34 percent lead pigment. Mattel's Jack in the Box was painted with red paint containing 10 percent lead, and Marx's red fire truck had 3.75 percent lead.¹⁴⁸

It seems that no amount of evidence, no health statistics, no public outrage could get the industry to regard the fact that its lead paint was killing

and poisoning children as anything but a public relations disaster. Until the end it wore moral blinders and obsessed over bad publicity rather than address the problem. By 1959, when childhood lead poisoning had clearly entered the popular culture through articles in *Parade* and television news programs on CBS, the LIA was still engaged in efforts to restrict public attention to the issue. When the LIA learned that a popular television program, *Highway Patrol*, had in one of its episodes a reference to lead poisoning in a young boy, the association's representatives convinced the producers to eliminate the offending reference. "We now have their verbal agreement to eliminate all reference to the toxicity of lead in an episode of the series which reflected no credit on the metal or on the producers themselves," the LIA proudly announced in its quarterly report.¹⁴⁹

The negative publicity about lead paint was of concern because it "hurt our business" and had resulted in "thousands of items of unfavorable publicity every year," the industry association argued. Bad publicity "may even mean that your product won't be used at all because your potential customer doesn't want the problems that the use of lead may involve."¹⁵⁰ Yet the association continued to insist that childhood lead poisoning was (1) primarily a problem of the eastern slums, and (2) a result of the lack of education, racial inferiority, and inattentiveness of poor people. "This is particularly true since most cases of lead poisoning today are in children, and anything sad that happens to a child is meat for newspaper editors and is gobbled up by the public." The LIA's response to the crisis was to persuade government agencies to relax government regulations. "We were largely responsible for the increase of one-third in the maximum permissible concentration of lead dust and fumes that became effective a couple of years ago," the LIA trumpeted. They worried that a lawsuit brought by a tenant in Milwaukee, if successful, could lead to the banning of lead pipe and the loss of the sale of thousands of tons of lead a year, and therefore worked with the defense to defeat the suit.¹⁵¹ Smaller cities began to test their own children and, as with the lead poisoning epidemic historically, the more they looked, the more poisonings they found. The LIA acknowledged that there had been "something of a change" in its understanding of the eastern and big-city nature of the epidemic as it began to find reports of childhood lead poisoning in rural communities and small cities as well. Lead poisoning was no longer just a problem of "the slums of our older and larger cities," but was now appearing also in Albany, New York, Springfield, Massachusetts, Covington, Kentucky, and Gastonia, North Carolina.¹⁵²

The lead industry had lost its battle to preserve the image of lead pigment as harmless, especially as the Civil Rights movement and the

beginning of the War on Poverty shifted public and professional attention to the rights of the poor and those exploited by industry. Community activists began to demand change in the way government reacted to the dangers of lead.¹⁵³ Throughout the late 1960s, in city after city, community groups demonstrated for screening programs, popular education, and housing reform in order to defuse the racially and economically charged issue of childhood lead poisoning.¹⁵⁴ Periodic high-profile deaths of small children who had ingested paint chips, and exposés such as Jack Newfield's *Village Voice* newspaper article, "Silent Epidemic in the Slums," heightened public and professional awareness.¹⁵⁵ In 1966 the U.S. Public Health Service published statistics showing that in the early 1960s lead was, outside of aspirin, the largest cause of poisonings of children under five years of age.¹⁵⁶ All this activity led President Richard Nixon's surgeon general, Jesse Steinfeld, to convene in 1970 a committee to set guidelines that would help cities define what constituted lead poisoning. At that time, as historian Christian Warren explains, there was no consistency among urban health departments about what constituted lead poisoning among children: "New York and Baltimore defined a 'case' of pediatric lead poisoning as a child whose blood-lead exceeded 60 $\mu\text{g}/\text{dL}$." Chicago used 50 micrograms and most others used 80 μg .¹⁵⁷ Steinfeld's committee established the following criteria: above 79 μg was viewed as "unequivocal cases of lead poisoning" and between 50 and 79 μg "were to receive further medical evaluation."¹⁵⁸

In mid-January 1971, Nixon signed the Lead-Based Paint Poisoning Prevention Act (LBPPPA), which prohibited, in any housing built with federal funds or assistance, the use of paints containing more than 1 percent lead on interior surfaces or any exterior surface such as porch railings and windowsills, where children might chew the paint. It also created programs for federal grants to cities for lead paint abatement and screening and treatment programs and to evaluate the nature of the lead paint hazard and to develop programs to address it.¹⁵⁹

By the early 1970s estimates of the extent of childhood lead poisoning were alarming. The National Academy of Sciences prepared a report for the Consumer Product Safety Commission that estimated that "600,000 children would show increased blood lead content if tested [more than 40 micrograms per 100 milliliters]." Studies of children in sample areas showed that "9.1–45.5% of children surveyed have blood lead concentrations above 40 $\mu\text{g}/100\text{ ml}$ and that 12.5% have concentrations above 60 $\mu\text{g}/100\text{ ml}$."¹⁶⁰ Because of the growing public outcry, the industry sought to develop support for its views on the matter. In 1971, the LIA's

Environmental Health committee had the well-known public relations firm Hill & Knowlton produce a report on childhood lead poisoning and discussed whether it was possible for the LIA "to induce a recognized scientist to 'author' the Hill & Knowlton report."¹⁶¹

Despite administrative problems and inadequate funding, Warren concludes that "the programs administered with LBPPPA funds prevented thousands of deaths and reduced the consequences of lead poisoning in hundreds of thousands of children. . . . By the early 1980s, federal funds had established some 100 lead-testing laboratories, 4 million children had been screened, 250,000 at-risk children had been identified for treatment, and 112,000 homes had been cleared of toxic paints and plaster."¹⁶² Amendments to the act in 1973 and 1975 "lowered permissible lead contents, first from one per cent lead in dried film to 0.5 per cent, and then to 0.06 per cent."¹⁶³ In 1977, the Consumer Products Safety Commission banned any paint above 0.06 percent in interstate commerce.¹⁶⁴ Warren observes, however, that as of 1981 25 states, predominantly in the South and the West, still were not using federal funds for lead abatement and screening.¹⁶⁵

In the early 1970s, Dr. J. Julian Chisolm Jr., who had himself received research support from the LIA, began to be concerned about the "effects of sub-acute or asymptotic [lead] absorption." Chisolm had pioneered the use of chelating agents as a method for reducing children's blood lead level and was legendary in Baltimore for his documentation that lead paint was the overwhelming cause of childhood lead poisoning.¹⁶⁶ Researchers had developed new laboratory methods for measuring blood lead-levels with less expensive, quicker techniques. This allowed Chisolm and others to "measure directly the effects of lead on biological processes that were invisible to the clinician—distinct physiological mechanisms taking place inside the body."¹⁶⁷ Specifically, Chisolm was able to document "consistent relationships between blood damage and blood-lead levels well below those associated with clinical symptoms, casting doubt on the notion of a clear threshold for damage and raising questions about the effects of asymptomatic lead absorption in other body systems."¹⁶⁸ This work led the U.S. Public Health Service to progressively lower its definition of "undue lead absorption" in children from 60 $\mu\text{g}/\text{dL}$ in 1971 to 30 μg in 1975 to 25 μg in 1985, and to 10 $\mu\text{g}/\text{dL}$ in 1991.¹⁶⁹

Up until the mid-1950s, the lead industry managed to keep information about lead poisoning among children largely out of public view. As a result, the industry thwarted attempts to regulate or ban lead in paint and thereby continued to reap enormous profits from the production of lead.

This all changed in the 1950s and especially in the 1960s as community activists took up the issue of lead poisoning, viewing it as a symbol of the assault that poverty constituted on the human body itself, particularly on poor African American and Hispanic children. Only when the market for lead paint began to dry up and the assaults on lead paint came from every direction did the industry turn its attention *away* from lead paint and *to* preserving the market for lead in what was the expanding gasoline and automobile industries.