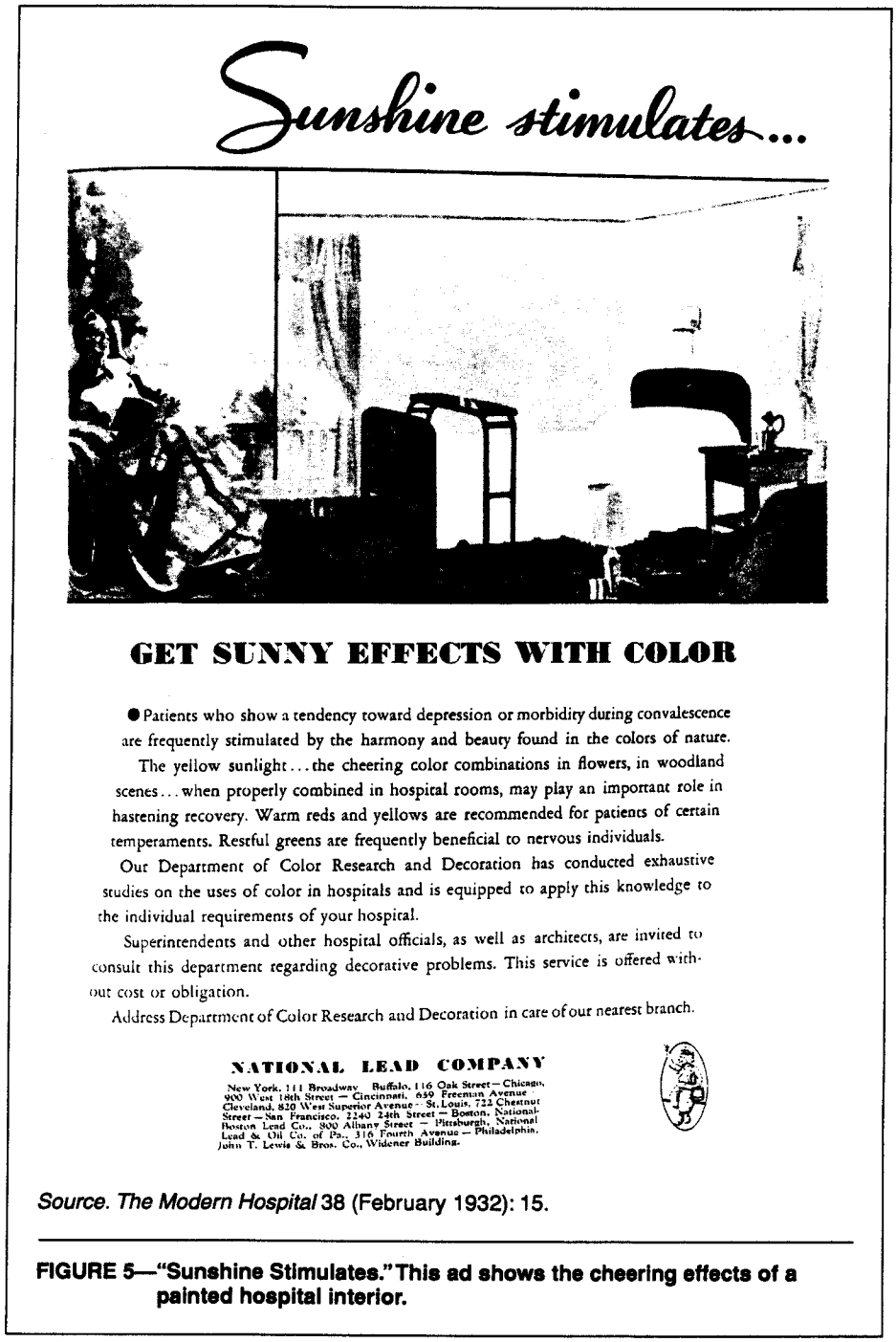
used to promote lead paint through the early war years. In 1943 Eagle Picher advertisements in *National Painters Magazine* urged professional painters to use "four arguments with prospects—you'll find they really sell paint jobs." The fourth argument was that "Eagle White Lead is just about the purest, safest, most fool-proof paint you or anybody else can use."[57]

The White Lead Promotion Campaign

In addition to specific companies' ads, in 1938 the lead industry as a whole, through the LIA, began its White Lead Promotion Campaign, the single largest activity undertaken by the LIA up until that date. The purpose of the campaign was to increase interest in white lead in paint because the LIA recognized that "white lead is also constantly subject to attack from the health standpoint."[58] The LIA thought that there was a "morale problem" and that advertising would help "to offset the stigma attached to lead because of attacks made upon it by consumer organizations." The association believed the campaign would "help to dispel fear or apprehension about its use."[59]

Early in the promotion campaign, LIA secretary Felix Wormser made it clear that white lead was being promoted for use in interiors.[60] In a 1938 article, the LIA's *Lead* magazine produced an elaborate economic rationale for using lead paint in residential housing, specifically in low-cost construction.[61] The magazine continued to promote white lead for interiors of low-cost homes in its July 1939 issue. In an article on decorating plywood structures, the magazine showed pictures of a recreation room and a kitchen painted with white lead.[62]

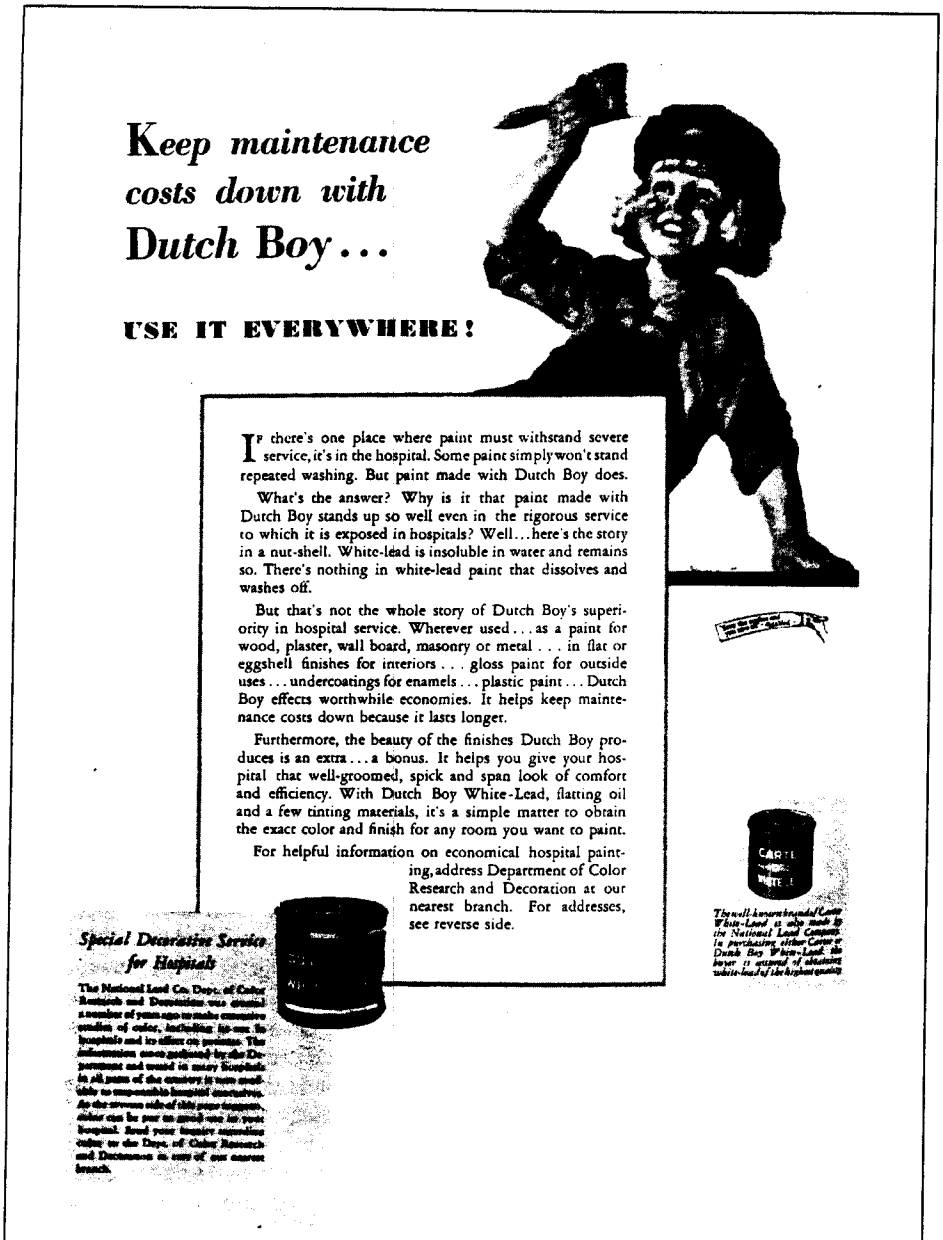
Two representatives of the LIA, Seldon Brown and W.L. Frazee, traveled throughout the country visiting officials of public and private institutions in efforts to convince them to use white lead. The LIA specifically targeted markets in urban areas. In mid-October 1940 the LIA reported, "In the course of his work with government officials in the neighborhoods 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."[63] Brown reported his success with the Brooklyn Brewcourt Management Company: "Through a demonstration of the true costs of white lead as compared with mixed paint for interiors, Mr. Kilman plans to use white lead on several jobs and probably all future works."[64]



Source. The Modern Hospital 38 (February 1932): 15.

FIGURE 5—"Sunshine Stimulates." This ad shows the cheering effects of a painted hospital interior.

In 1940 the campaign was expanded to include municipal, state, and county institutions. Brown specifically marketed white lead paint for public schools, noting in reports to the association 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 2 years on the job, of which 380 were to state, county, and miscellaneous institutions. Brown was particularly insistent on pushing white lead for interior use. When he visited one superintendent of maintenance for Seattle's public school system, Brown initially met with resistance. The superintendent, he reported, 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."[65] Brown also reported on his ability to sell the virtues of white lead to those who knew little about it.[66–69] In Flint, Mich, the superintendent of maintenance for the Board of Education was "very interested in our description of the qualities of interior white lead. [He] said that he thought that



Source. *The Modern Hospital* 38 (February 1932): 16.

FIGURE 6—"Keep Maintenance Costs Down." Here National Lead touts white lead's durability ("insoluble in water") and attractiveness for hospital interiors.

white lead was going out because he has heard so little about it. [He knew] nothing about white lead for interiors. [But he] plans to run comparative tests between white lead and present mixed paint used on interiors."[70,71]

In addition to selling to schools, the LIA marketed lead paint to cities, hotels, and even health departments. Frazee reported that he had visited Little Rock, Ark, where he convinced a local hotel manager to have "his entire hotel, inside and out, done with lead and lead reducing oil."[72,73] In Pierce County, Washington, the LIA representative visited the county health department, where he "explained properties of interior white lead paint, stressing sanitary aspects of a highly desirable and washable surface."[74]

In addition, the White Lead Promotion Campaign comprised an advertising campaign, the placement of articles promoting the use of white lead in trade and popular journals, and mailings. In 1939, *Dutch Boy Painter* magazine announced a "big, new, cooperative advertising effort in behalf of white-lead. . . . 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 magazine campaign would produce "67,570,526 separate messages that will be carried in the publications named."[75,76]

In 1940, the secretary of the LIA praised the campaign's success in countering concerns about lead's effect on human health:

> One beneficial result of our campaign is the good will it is building up for lead in general. 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.[77]

The LIA saw its promotional campaign as an important antidote to the negative publicity that lead was receiving in the national press: "[I]n the long run [the campaign] will share in dispelling anxiety about [lead's] use. In any event the problem remains serious for our industry. Hardly a day passes but what this office has to devote some attention to lead poisoning," said Wormser in 1941.[78]

The Dangers of Lead Paint Become National News

In December 1943 the issue of lead poisoning from paint among children, already familiar to those in the industry and to some pediatricians and public health professionals, became national news. *Time* magazine reported on an article by pediatricians Randolph Byers and Elizabeth Lord in the *American Journal of Diseases of Children.* The *Time* article noted that parents' lack of understanding of the dangers of lead-based paint led many to use this toxic material on toys, cribs, and windowsills. When children chewed the painted surfaces, a variety of physical and nervous disorders resulted. "All but one child, Dr. Lord discovered, were school failures. Only five had normal I.Q.s, and four of the five were so erratic that they could not learn easily."[79] The reaction of the LIA secretary was to deny the reliability of Byers and Lord's data; he went so far as to pay a personal visit to Byers in Boston. In a preliminary report on the *Time* piece, the LIA maintained that the assumption regarding the relationship between lead poisoning in early infancy and later mental retardation had not been proven and that many of the cases of lead poisoning had "never been conclusively proven."[80]

The LIA's denials of the dangers posed by lead paint came despite detailed warnings from Robert Kehoe that the association's position was indefensible. Shortly after publication of the Byers and Lord article and the *Time* article, Robert Kehoe wrote to Wormser, "I am disposed to agree with the conclusions arrived at by the authors, and to believe that their evidence, if not entirely adequate, is worthy of very serious consideration." He informed the head of the LIA that in his own work he had seen "serious mental retardation in children that have recovered from lead poisoning."[81] Kehoe left no doubt that he would be willing to assist the board of LIA, but he objected to Wormser's denial of the importance of paint in causing lead poisoning in children. Kehoe argued that the position of the LIA was insupportable. "Unfortunately for Wormser's thesis, comparable results have been obtained in almost every other area of the United States where there have been facilities that enable accurate investigation of this type to be made."[82] "Small children crawl about on the floor and contaminate themselves pretty generally with every kind of dust or dirt that is within their environment. Eventually everything they get on their hands goes into their mouths, and therefore considerably greater opportunities exist for the dangerous exposure of small children of a variety of materials."[83,84]

But the LIA refused to accept the mounting research and evidence of lead poisoning. In December 1945, the association proposed a campaign to counteract the "medical and public misinformation usually amounting to actual prejudice against lead, because of its toxic qualities, [and which] is a subject of vital importance to all the lead industries in the United States." The LIA complained, "If anything, the problem has become even more serious in the last five years than ever before, owing primarily to the spread of considerable anti-lead propaganda and also to occasional faulty medical research which has penetrated deep into medical annals and caused many physicians and hospitals to assume erroneous positions on the question of lead poisoning." The LIA believed that the issue was "so fundamental" to the future welfare of the lead industries and the continued manufacture and use of many important lead products, such as white lead, red lead, litharge, sheet lead, and pipe lead, that unless immediate attention were paid to the problem "the opposing forces may grow strong enough to do us injury which it would take years of work to correct." As a result, the LIA outlined a safety and hygiene program, one purpose of which was to address the existing literature saying that lead represented a health hazard to the worker and the consumer.[85]

In 1946 the problem intensified: Wormser reported to the LIA that

> attention to the serious problem faced by all the lead industries because of the toxic nature of our metal is occupying a growing rather than a diminishing amount of the Association's time. This is largely owing to attacks upon lead that cannot be ignored for, if unchallenged, they may very easily lead to the sponsoring of totally unwarranted State and Federal legislation of a regulatory or prohibitive character. . . . Suffice it to say here that this is an unending battle from which we can only withdraw at our peril.[86]

In general, Wormser continued to argue that the danger to the public was minimal.[87]

As late as 1952, the LIA continued to promote the usefulness of white lead in both interior and exterior coverings. In its book *Lead in Modern Industry,* the LIA noted 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, "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."[88]

In summaries of his activities in 1952, the director of health and safety of the LIA, Manfred Bowditch, called childhood lead poisoning "a major 'headache' and a source of much adverse publicity." He counted 197 reports of lead poisoning in 9 cities, of which 40 cases were fatal, although he noted that this was an "incomplete" estimate, especially for New York City.[89] In New York, 44 cases were reported, of which 14 were fatal. Between 1951 and 1953, according to George M. Wheatly of the American Pediatrics Association, "there were 94 deaths and 165 cases of childhood lead poisoning . . . in New York, Chicago, Cincinnati, St. Louis, and Baltimore."[90]

Reports from health departments, publicized in the popular press, were demonstrating the widespread nature of the lead paint hazard. In 1952 the LIA collected "nearly 500 newspaper clippings featuring lead poisoning, often in sizable headlines."[91] In 1956 the LIA noted that a headline in the New York *Daily News*, "Lead Poisoning Killed 10 Kids in Brooklyn in '55, Highest Toll in the City," was "based largely on data from the Health Department."[92] In addition to "the common run of newspaper studies on childhood and other types of plumbism," the LIA noted 2 "items of adverse publicity transcending [them] in importance." In July 1956 *Parade* magazine, which reached more than 7 million readers of 50 newspapers across the country, ran an article titled "Don't Let YOUR Child Get Lead Poisoning," and the CBS television network carried a broadcast on childhood lead poisoning.[93]

Blaming the Victims

The LIA recognized as early as 1952 that to continue fighting a rearguard action attacking the extent of the lead poisoning problem would be "prohibitively expensive and time-consuming."[94] But the association continued to deflect responsibility for this tragedy away from the industry itself, placing the blame on poverty, not on the lead industry: "The major source of trouble is the flaking of lead paint in the ancient slum dwellings of our older cities, [and] the problem of lead poisoning in children will be with us for as long as there are slums."[95] Bowditch acknowledged "that the overwhelmingly major source of lead poisoning in children is from structural lead paints chewed from painted surfaces, picked up or off in the form of flakes, or adhering to bits of plaster and subsequently ingested." But who was responsible for this condition? According to Bowditch and the LIA, "Childhood lead poisoning is essentially a problem of slum dwellings and relatively ignorant parents." He maintained that lead poisoning was "almost wholly confined to the older cities of the eastern third of the country" and that "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."[96]

The president of the NPVLA, Joseph F. Battley, elaborated on this theme but used contemporary psychological explanations to rationalize away corporate responsibility for the pollution of children's environments. There might be dietary deficiencies, he said, but even "a well-fed child may still be emotionally hungry because he does not receive as much loving attention as he needs. Another may suffer from a sense of insecurity. To gain the comfort and reassurance they crave, they often place inedible objects [i.e., flaking paint] in their mouths."[97] As late as 1959, lead poisoning was still "a headache" for the industry.[98]

In the 1940s and early 1950s, state and local health departments sought to warn consumers about the dangers lead paint presented to children and others. The industry organized to oppose these efforts. Early labeling regulations in California in 1945 and Maryland in 1949 were opposed by the LIA and NPVLA, and the LIA took credit for the repeal of Maryland's statute.[99] Confronted with pressure in a number of localities and states for increased regulation, the NPVLA's counsel suggested 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 legislatures to forestall any further unnecessary legislation."[100]

In May 1954, the New York City Health Department proposed a sanitary code provision that would have banned the sale in the city of paints containing more than 1% lead and would have required lead paint to be labeled as poisonous and not for interior use.[101] This was consistent with the recommendations of the American Medical Association, which suggested labels saying "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."[102] Both the NPVLA and the LIA opposed such wording. They supported and helped to develop the standard adopted in 1955 by the voluntary American Standards Association, which did not require the use of the word "poison."[103] New York City's regulation limited the amount of lead in interior paints to 1% but did not include the more explicit warning, and the industry adopted the same voluntary standard. Even in 1958, the LIA continued to oppose "any legislation of a prohibitory nature."[104]

Although the industry claimed that it had stopped using lead in interior paints in the 1940s, and it is clear that other pigments increasingly replaced lead during that time, lead continued to be present in paints sold for interior use well into the 1950s. In one survey commissioned by the US Department of Housing and Urban Development, "about one third of [Pittsburgh's] dwelling units built in [1940–1959] had surfaces with high (2 mg/cm^2 or more) concentrations of lead and nearly 10 per cent of the rooms tested had such lead levels."[105] In 1970, federal legislation prohibited the use of lead paint in federally financed and subsidized housing, and the Consumer Products Safety Commission prohibited the use of all lead paint after February 27, 1978. Yet in 1971, the New York City Health Department tested 76 paints and "found eight of them with amounts of lead ranging from 2.6 to 10.8 percent."[106]

A Terrible Legacy

Despite the medical evidence concerning the dangers to children of lead-based paint, the reports from Baltimore and other cities of lead poisoning of children, occasional articles in the popular press concerning the dangers of lead-based paint, and internal correspondence from leading lead authorities around the country acknowledging that lead paint was a serious hazard, the industry neither removed lead from paint nor warned consumers of its danger until very late in the game. In fact, at critical moments during this long history, the lead industry actually misled the public health community, assuring it that lead paint was not being used on toys, interior surfaces, or cribs. The industry also consciously used children in its advertising and promotion campaigns in ways that aggravated the public health crisis. By employing children in its marketing strategies, the industry reinforced the public's perception that lead paint was safe, thereby countering the increasing medical, public health, and popular literature documenting lead paint's dangers. This terrible legacy still haunts us today, as more and more cities become aware of the enormous intellectual, physical, emotional, and economic costs of the decades during which an entire industry ignored the growing evidence of lead's impact on children's health and shaped Americans' understanding of the dangers posed by lead. □

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