

INDIANA HISTORICAL SOCIETY COLLECTIONS ADVISOR

A RESOURCE FROM IHS LOCAL HISTORY SERVICES

Issue 177 | July 2026

Conserving the Star-Spangled Banner

By Tamara Hemmerlein
Director, Local History Services

The Star-Spangled Banner is one of the most significant artifacts in United States history. It was raised at Fort McHenry in Baltimore in 1814 and inspired the words of what would later become the U.S. national anthem. The Smithsonian Institution acquired it in 1907. Once there, the flag was almost constantly on exhibit.



Jill Robinson with American Flag, cropped (Gift of Jill Kramer, Indiana Historical Society)

In 1997, a comprehensive and much needed [conservation effort](#) began. The hall where the flag was exhibited was closed to the public and a team of specialists, including textile conservators, worked together to move the flag to a special conservation lab so that work could begin.

To ready the flag for the move, a cantilevered display frame was reinforced, and the flag was carefully laid on it. Then, the textile was carefully vacuumed to remove surface contaminants, and fragile spots were identified and protected. The flag was rolled onto a special tube, and the tube was loaded into a crate. The textile was transported to its temporary home – a lab with its own HVAC and ventilation system to ensure contaminant-free air and regulated temperature and humidity.

Multiple conservators worked from a gantry (a moveable platform) to examine and conserve the flag. Visitors could watch the process through a glass wall. A linen support which had been added to the flag in 1914 was removed. Over time, the support had deteriorated and become dirty. Leaving it in place would have made conservation much more difficult and may have caused further damage to the flag. The over 1.7 million stitches were held by tweezers, the end piercing the fabric was snipped, and the released thread was removed. Small spatulas were used to gently separate the linen from the flag.

Once the linen was removed, conservators were able to examine the back of the flag with a camera and microscope. This allowed them to analyze and document the condition, examine any debris on the flag, and determine the best treatment options. Surface dirt on both sides was cleaned by gently tapping the material with a dry sponge. Past harmful repairs were removed to minimize stress and encourage the fabric to relax into its more natural shape, an irregular rectangle.

Later, a mixture of acetone and water was applied to the flag with a very soft brush. Acid-free, conservation blotting paper was positioned below the flag to absorb the dirt as it moved through the fabric. Once analyzed, the dirt and debris were found to be a combination of organic matter (skin cells, hair, and airborne plant material), construction remnants (aluminum, calcium silicate, cement, concrete, and gypsum board), and fabric (fibers from clothing, mops, cleaning rags, and paper lint).

One of the final steps was to realign the flag, removing distortions that were caused by a 1914 “restoration” of the flag to a perfect rectangle. The flag was sewn onto a stable, lightweight polyester material to support it. When the flag was moved into its new display room, the underlying support structure was angled to 10 degrees so that the flag could be appropriately supported and visitors could see it.

Each step of the process was recorded and photographed to document what was done and how. The flag was too large to be photographed as one image, so separate photos were taken of each section. Those images were compiled into one composite image. Careful notes were made of the materials and processes used for future reference and conservation decisions.



[School Children with Flags](#) (Martin Collection, Indiana Historical Society)

Resources

FROM THE FIELD

[U.S. Flag Code: Display, Respect & Proper Use](#) (American Legion)

[Flag Rolling and Storage](#) (Connecting to Collections Care)

[How to Preserve Flags and Large Textiles](#) (Gaylord)

[Collections: Preserving Perishable Materials](#) (National Park Service)

[The Star-Spangled Banner](#) (Smithsonian National Museum of American History)

[Guidelines for the Preservation of Flags and Banners](#) (Smithsonian National Museum of American History)

LOCAL HISTORY SERVICES

[Collections Advisors](#) (Indiana Historical Society)

[Timely Tips](#) (Indiana Historical Society)

Collection Trainings

COLLECTIONS CONUNDRUMS WORKSHOP SERIES IN INDIANA

Join IHS Local History Services for a [Collections Conundrum workshop](#)!

This full-day workshop will focus on the decisions we make about our collections. First, we'll address the decision-making and processes connected to incoming donations. Then, we'll turn our attention to the other side of collecting – how to legally and ethically remove objects from our permanent collections.

Cost: \$35; \$30 IHS members; \$25 Local History Partner Members

Workshop Details:

Aug. 13: Franklin

(Hosted by the Johnson County Museum of History)

VIRTUAL COLLECTIONS TRAININGS FROM THE FIELD

[Transforming Security to Improve Collection Care and the Visitor Experience](#)

July 7 (Texas Association of Museums)

[Fundamentals of Photograph Preservation](#)

July 7 – Aug. 18 (Northeast Document Conservation Center)

[Digitization: Planning for Success](#)

July 9 (Northeast Document Conservation Center)

[Caring for Scrapbooks](#)

July 14 (Northeast Document Conservation Center)

RECORDED WEBINARS

[Connecting to Collections Care](#) (FAIC)

[Local History Services Webinars](#) (Indiana Historical Society)

[Museum Services Webinars](#) (Texas Historical Commission)

This is a free publication. Anyone may subscribe.

Read past issues of Collections Advisor [here](#).

[Local History Services](#)

(317) 232-1882 | localhistoryservices@indianahistory.org