

U.S. ARMY ARTIFACT SPOTLIGHT

PROTECTING THE DOUGHBOYS

THE DEVELOPMENT OF AMERICAN BODY ARMOR DURING WORLD WAR I

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After the American entrance into the Great War, the Army General Staff was determined to outfit doughboys for this new industrialized warfare by reintroducing body armor. Professor Bashford Dean, the curator of arms and armor at New York City's Metropolitan Museum of Art, was commissioned as an Army major in the Ordnance Department and named chairman of the National Research Council's Committee on Helmets and Body Armor. At the time, Dean was a leading American expert on armor and metallurgy.¹

Although the committee's primary mission was to create a practical and uniquely American helmet that maximized protection, Dean also set out to create a full body suit of armor, which would be the first time since the 1600s that such suits had been utilized. Dean worked with the Metropolitan Museum of Art's armorer, Daniel Tachaux, to create prototypes. General John J. Pershing, commander of the Allied Expeditionary Forces, supported the development of body armor and, consequently, the Ordnance Department reviewed approximately thirty prototypes, a select number of which were sent overseas. However, research does not indicate that any of the armor received successful ratings.²

The two main types of armor were heavy and light. The advantage of the heavy was that it protected the wearer from rifle and machine gun fire, however, its weight restricted movement, making it primarily useful for sentinels, machine gunners, and those defending shell holes. The heavy armor illustrated here is .185 inches thick and weighed about twenty-seven pounds. The reverse shows the bands that held the armor pieces in place and helped distribute that weight across the torso.

The light body armor was more comfortable but only offered protection against shrapnel and pistol fire. It consisted of multiple plates connected by leather straps and was considered to be custom fitted with the potential removal of a plate. The steel was not more than .04 inches thick and weighed less than eight pounds.³

Designers also created leg and arm (not pictured) coverings because of the high number of wounds in the extremities that were occurring with trench warfare. However, only about fifty pairs of leg armor were made; they received negative feedback, which halted further efforts. The armor that covered the entire leg could stop a revolver bullet from a distance of ten feet and weighed seven and a half pounds.

For each arm the armor was made up of five individual plates, which weighed a total of about eleven pounds. Like the armor for other parts of the body, the sections were connected by strips of leather. In terms of protection, the arm defenses provided the same security as the leg armor. Arm armor was tested in limited numbers overseas and, similar to the leg armor, received poor marks.⁴

None of Dean's body armor prototype designs were officially approved or issued during World War I, but his work created a foundation for successors who continued the mission of creating an ideal body armor for U.S. troops.⁵

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NOTES

1. Bashford Dean, *Helmets and Body Armor in Modern Warfare* (New Haven, Conn.: Yale University Press, 1920), pp. 208–11. Donald J. La Rocca, "Bashford Dean and Helmet Design During World War I," Blogs/Now at The Met, The Metropolitan Museum of Art, accessed 23 July 2014, <http://www.metmuseum.org>, pp. 2–4.
2. La Rocca, "Bashford Dean and Helmet Design During World War I," pp. 2–4. Dean, *Helmets and Body Armor in Modern Warfare*, pp. 208–12, 242.
3. Dean, *Helmets and Body Armor in Modern Warfare*, pp. 242–53.
4. Ibid., pp. 262–65.
5. La Rocca, "Bashford Dean and Helmet Design During World War I," pp. 9–11.

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