

BY ELIOT LOTHROP

Bullard's Hard-Boiled Hat

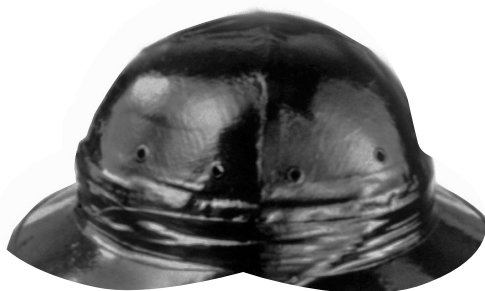
This year marks the 100th anniversary of the invention of the hard hat by San Francisco-based mining-equipment-manufacturer E.W. Bullard, who first patented his “hard-boiled hat” in 1919. A forerunner of today’s safety helmet, Bullard’s hat was made from steamed canvas, glue, and waterproof paint (with an asphaltic base). On his 1930 patent, he stated, “My invention relates to hats, and especially to those worn by persons working in localities where there is danger of being struck by falling objects ... [the hat shall possess] a sufficient degree of rigidity to protect the wearer and still light enough to be worn without discomfort.”

Until the 1930s, wearing personal protective equipment (PPE), such as hard hats, was often considered of a sign of weakness—even cowardice. For hazardous work, workers were known to relent and stuff their hats with cotton or paper to provide some semblance of protection against blows to the head and falling objects. They also made makeshift protective hats by smearing tar on the cloth hats and letting them harden. What made Bullard’s hat distinctive was that it was the first foray into the manufacture (and standardization) of safety hats in the U.S. With this, a nascent PPE industry had begun, though wearing head protection routinely would take decades to catch on in industry.

Big projects. When E.W. Bullard returned from World War I, he rejoined his family’s mining equipment company. In 1917, the U.S. Navy asked the Bullard Co. to provide it with a protective cap for shipyard workers. Bullard drew upon his experience wearing a “doughboy” (M1917 Brodie) steel helmet to design his new hat. Along with its patented outer, “steam-boiled” construction, Bullard developed an inner suspension system similar to the one used in the Brodie helmet, and thus created the first commercially available, industrial head protection.

The first major project for which construction workers wore Bullard’s hat (though not mandatory to wear) was building the Hoover Dam, which broke ground in 1931. The second was erecting the Golden Gate Bridge, which began work in 1933. That project’s chief engineer, Joseph Strauss, required the hats to be worn at all times to reduce accidents.

Eliot Lothrop operates Building Heritage, specializing in timber-frame restoration, in Huntington, Vt. He and his crew wear hard hats most days while working.



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July 15, 1930.

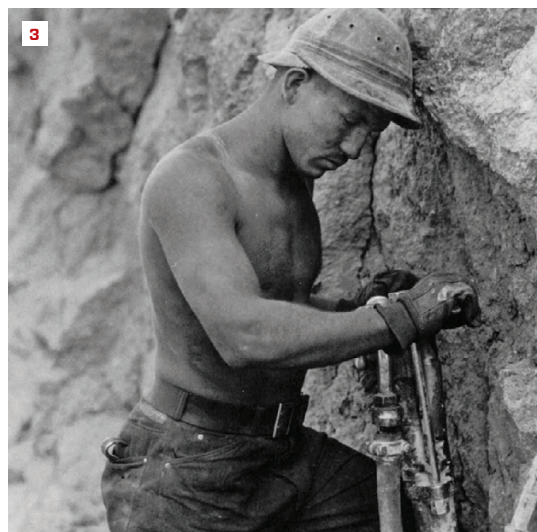
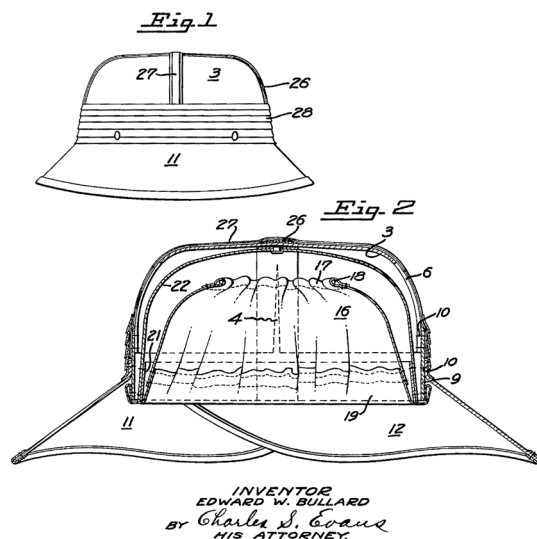
E. W. BULLARD

1,770,376

SAFETY HAT

Filed Feb. 8, 1927

2 Sheets-Sheet 1



Bullard’s hard-boiled hat (1). Patent drawings show a hat that looked more like Sherlock Holmes’ deerstalker cap than a modern hard hat (2). The hats were first worn during construction of the Hoover Dam; here, a “scaler” jackhammers bedrock (3).

Photos: 1, courtesy E.D. Bullard Co.; 2, U.S. Patent Office; 3, U.S. Bureau of Reclamation (USBR)