



# Alexandria Times

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## Out of the Attic

### Janney's invention saved lives of rail yard workers

*Alexandria Times, June 29, 2017*

*Drawing, Courtesy U.S. Patent and Trade Office*

eli Hamilton Janney was an Alexandria dry goods clerk who rose to fame in 1873 as the inventor of the modern knuckle coupler that connects one train car to another. Although Janney had no previous experience with rail transportation other than as a passenger, his interest in the subject was apparently sparked by his military service in the Civil War and his settlement in Alexandria after the war, then the nerve center for rail traffic in Northern Virginia.

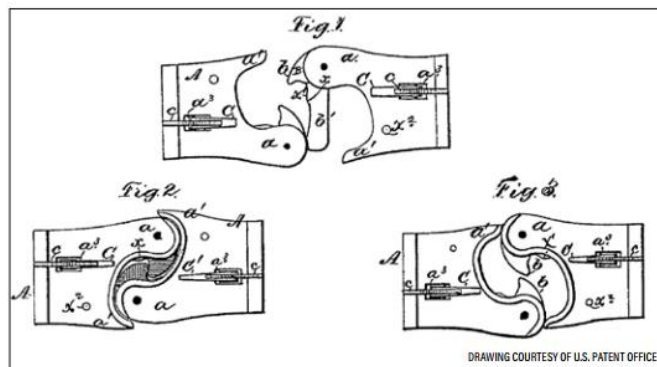
Janney was born on Nov. 12, 1831, in Loudon County to David Janney and his wife, Elizabeth Avis Haines, prominent Quakers. The younger Janney worked as a small farmer in his early years, briefly studying at the theological seminary before his marriage to Cornelia Hamilton. When the Civil War broke out, Janney enlisted in the Confederate forces where he attained the rank of major.

As a soldier in and around Alexandria, Janney would have witnessed firsthand the mighty, often uncontrollable power of trains, and the dangers and challenges associated with maintaining the fleet of huge railcars and changing their direction of travel. At that time, train cars were connected by a link and pin system which required a brakeman to physically place himself between the ends of both cars, vertically align their projecting iron links and place a large metal pin to join them.

To achieve this, cars were moved slowly by the train engineer, but once the brakeman was out of sight, any unexpected movement of the cars could result in death or the most horrific of injuries. Dozens of badly maimed survivors were commonplace in Alexandria as testament to the irreversible dangers of the occupation. It was estimated that as rail travel increased during and immediately after the war years, more than 40 percent of all rail yard accidents occurred at this crucial phase of rail coupling.

After the war, Janney settled permanently in Alexandria as a clerk in a King Street dry goods store, but his concern for those rail workers injured by this circumstance never completely left his mind. One day, by happenstance, he linked his hands by bending the knuckles in his fingers and the idea for a new rail coupler was born.

With no formal education or drawing abilities, he spent his lunch hours endlessly whittling wooden models of potential couplers. Finally, in 1868, with the aid of a hired artist, he submitted the first patent application for his revolutionary design. Five years later, he was awarded a second patent, which refined the coupler with the addition of a drawhead and revolving hook, features that allowed it to automatically join and unjoin the cars without the presence of a rail worker.



DRAWING COURTESY OF U.S. PATENT OFFICE



## Office of Historic Alexandria City of Alexandria, Virginia

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In 1878, Janney sold his patent rights to the McClonway and Torley Company of Pittsburgh for a modest sum, preventing him from ever reaping financial success for the idea. By the time of his death in 1912, only 4 percent of rail yard accidents occurred during the coupling process. Eli Janney was heralded as a beloved Alexandrian, and Janney's Lane was named in his honor.

*"Out of the Attic" is published each week in the Alexandria Times newspaper. The column began in September 2007 as "Marking Time" and explored Alexandria's history through collection items, historical images and architectural representations. Within the first year, it evolved into "Out of the Attic" and featured historical photographs of Alexandria.*

*These articles appear with the permission of the Alexandria Times and were authored by Amy Bertsch, former Public Information Officer, and Lance Mallamo, Director, on behalf of the Office of Historic Alexandria.*