

Larrimore Crimpers

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The 2025 Mining Artifact Collectors show came to an end this past weekend. I didn't buy anything at the show, but I acquired a wealth of information from the other collectors I met there. One of those collectors was Mark Bohannon. Mark collects American blasting cap crimpers, safety fuse, and dynamite wrappers. He has written extensively about these objects. His articles can now be found in the *Mining Artifact Collector* section of the Mineralogical Record website.¹ Mark's book, *Blasting Cap Crimper Patents* (1998), is the only comprehensive reference available for those of us who collect cap crimpers.



Here are a couple of photos of Mark's collection.

¹ <https://mineralogicalrecord.com/eureka-mining-artifacts-journal-page/>, visited 2/12/25.

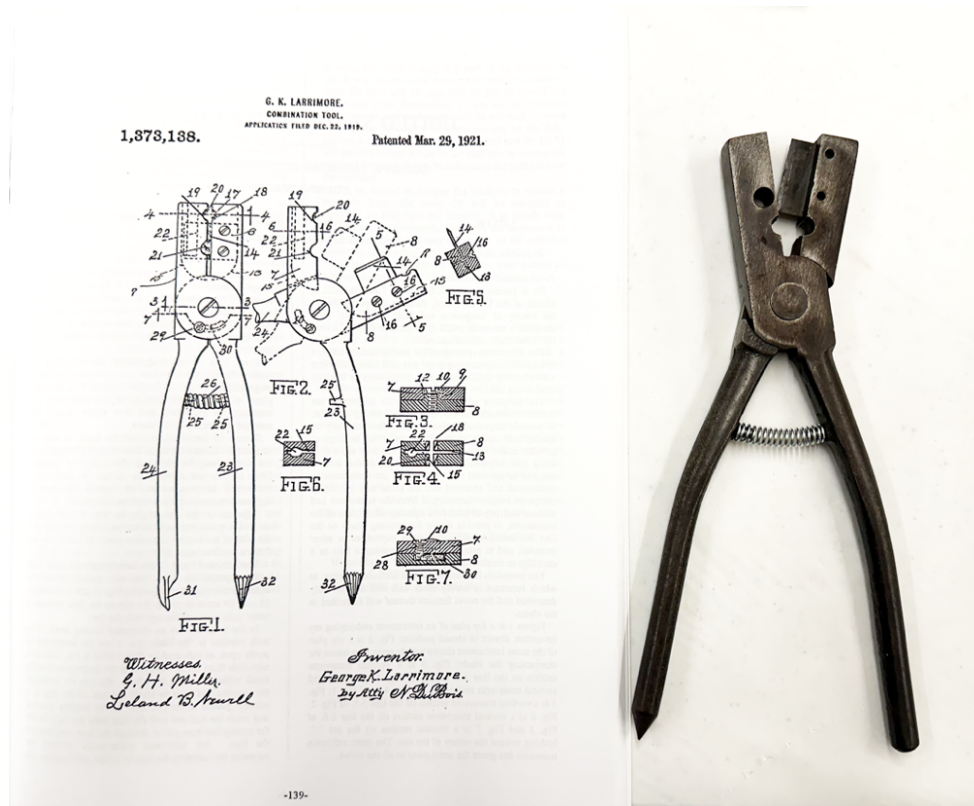


I corresponded with Mark before the Tucson show and was anxious to meet him and ask his opinion about a couple of items from my collection. One of these was a pair of massive steel

crimpers that was given to me by Reg Pattee some years ago. Reg had not identified them, and I was hopeful Mark could do so.

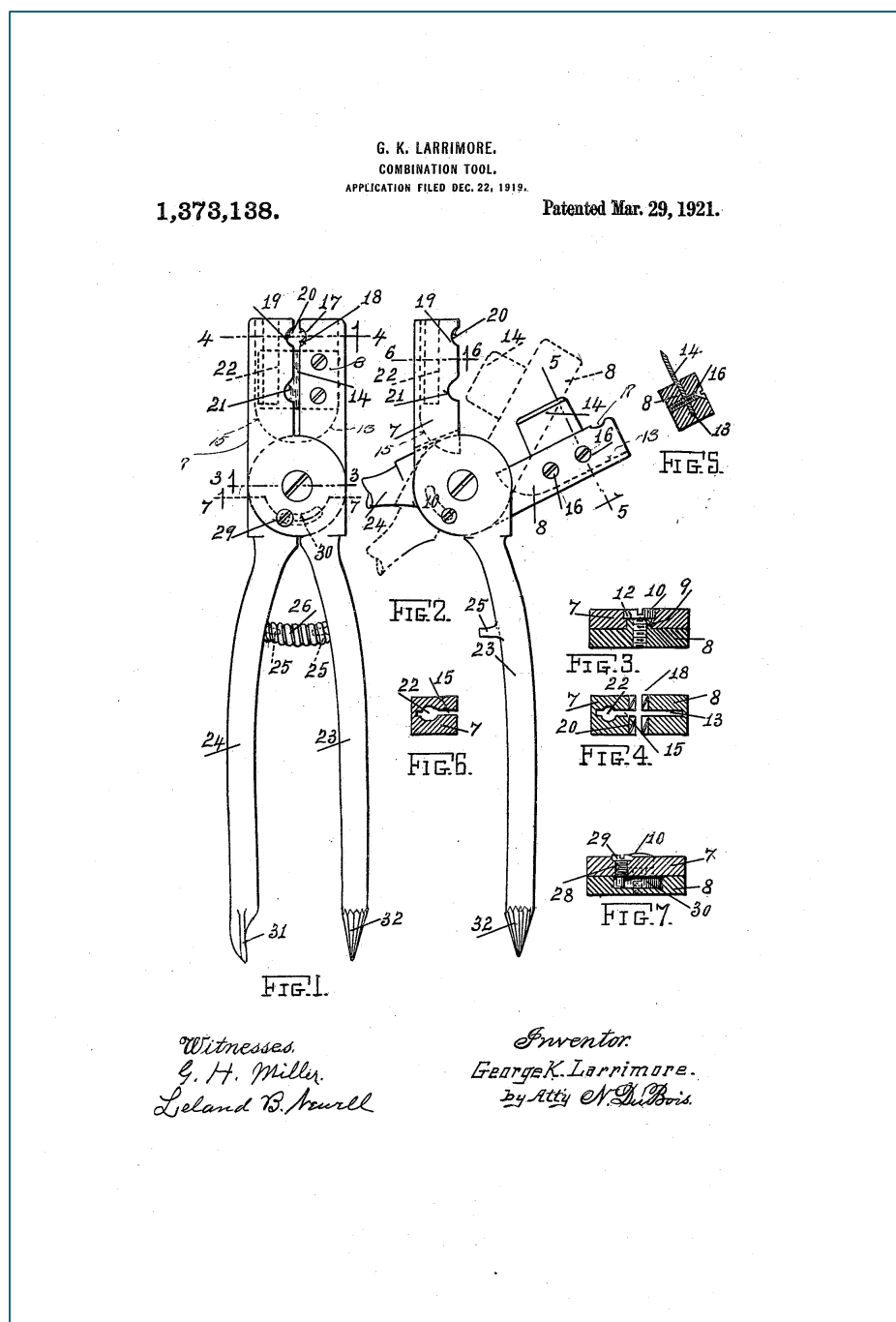


The expansion spring is not original; it's a substitute spring that I bought at Ace Hardware. Mark took one look at the crimpers and told me he thought they were a pair of Larrimore crimpers. He then took out his book of crimper patents and found the relevant patent at page 139.²



² The patent illustration is from Mark's book, *Blasting Cap Crimper Patents* (1998). I photographed my crimpers alongside his book while at the 2025 Tucson show.

The Larimore crimpers were patented by G. K. Larimore on March 29, 1921, as a "Combination-Tool." In appearance, they strongly resemble Prince crimpers. According to the patent description, "The instrument is designed for use by miners, blasters, or others having occasion to cut and split fuses and crimp a fulminating cap on each fuse..." The tool incorporates a fuse cutter, a fuse splitter, and a cap crimper.³



³ This illustration is from the on-line version of the patent, maintained by the U. S. Patent and Trademark Office. The patent may be accessed at: <https://ppubs.uspto.gov/dirsearch-public/print/downloadBasicPdf/1373138?requestToken=eyJzdWIiOiIwNjAwNTMxYS1hMmU3LTRmNGEtYjkwNi1iYTFljNml0Zjl4ODgiLCJ2ZXIiOiIyZTdlMzEzLTQzMGI0YjhhZi02M2Y3NTI4YzUxMzkiLCJleHAiOiB9>

The patent design calls for the use of a screw to join one half of the crimpers to the other half at the pivot point (3) and two screws (16) for the removal and replacement of the cutter blade, but all of these screws are absent from my example. Instead, the two handles are joined together by a compression fit at the pivot point and the blade is secured in its slot by pins. The patent also calls for a stud screw (29) in a channel (30) cut just below the pivot point to limit the extent to which the tool may be opened. The patent notes that if this stud screw is removed, the tool may be opened fully. In the patent drawing, the hole for the fuse cutter (21) is positioned behind the hole for the crimper jaws (20), whereas in the physical example the position of these holes is reversed. Like Prince crimpers, this makes the tool more difficult to use for crimping, because the fuse with the blasting cap attached must be inserted into the crimping jaws from the side of the tool. This was perceived as a disadvantage by Arthur La Motte, the compiler of Du Pont's *Blasters' Handbook*.⁴ The Larrimore patent calls for a screwdriver or wedge-shaped blade at the end of one handle (31) and a dynamite punch at the end of the other handle (32). In my example, the dynamite punch is evident, but there is no screwdriver shaped blade at the end of the other handle. Small studs on the insides of the handles near the head of the tool (25) accommodate a compression spring (26) to hold the handles apart and the head of the tool open when in use. Unlike Prince crimpers, however, there is no wire loop or bale at the end of the handles to hold the crimper closed when not in use. Like most cap crimpers, the differences between the patented design and the physical example suggest that the tool was greatly simplified for purposes of production, among other things, by eliminating all of the screws.

The tool is massive. It is slightly over 8 inches long in its closed position and weighs about 9½ ounces. By comparison, a pair of Hercules No. 1 crimpers is about 5½ inches long and weighs about 3 ounces. Because of their size and weight, the Larrimore crimpers were probably much less convenient to carry and employ in everyday use. As a result, they were likely not very popular among miners or others. Mark told me that he knew of only two other examples of Larrimore crimpers besides mine.



⁴ Arthur La Motte, "The Cap Crimper Family," *The Du Pont Magazine*, Vol. 21, Nos., 10-11, pp. 20-21 (1927), https://digital.hagley.org/1927_21_10-11, accessed August 7, 2020.