

The Powderman's Pal Combination Tool

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The Powderman's Pal combination tool is an extremely rare tool that was intended to function as a fuse cutter, blasting cap crimper, and fuse splitter. To my knowledge only two examples of this tool are known to exist in collections, one in mine and another in the collection of Tony Moon. I acquired my example from my friend Reg Pattee.

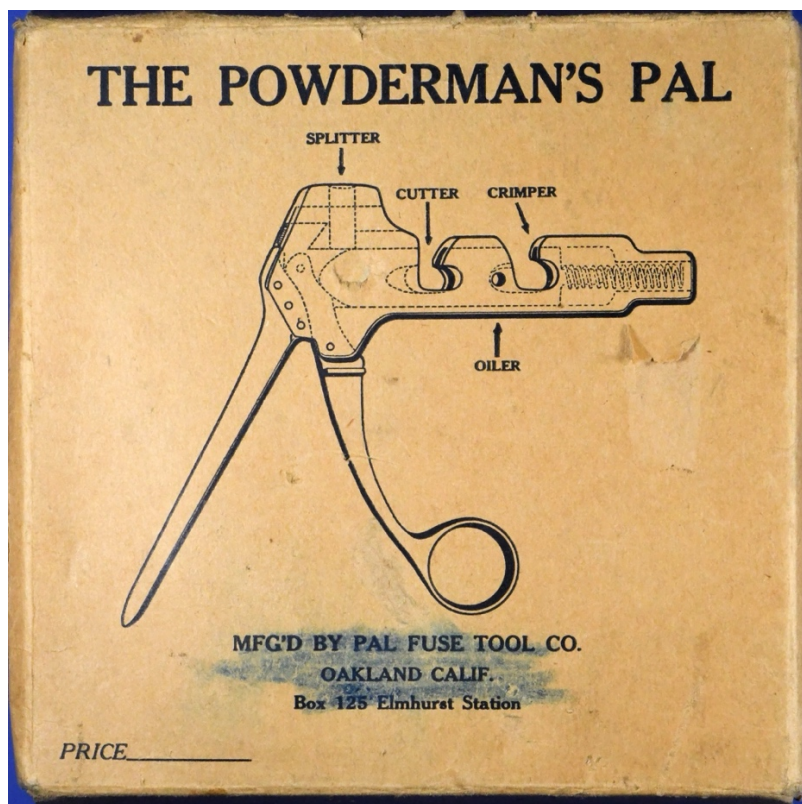


Powderman's Pal, side 1



Powderman's Pal, side 2

The top of the box that came with my example shows the functions of the various slots in the tool.



Both the tool and its box measure about 6 ¼ inches on a side, although the tool seems slightly larger than the box, which would explain the stress that was put on the box and the slight bulging of its sides. The body of the tool appears to be cast of pot metal,¹ and in my example the cast body has broken in several places near the upper portion of the rear handle.



Close-up, side 1

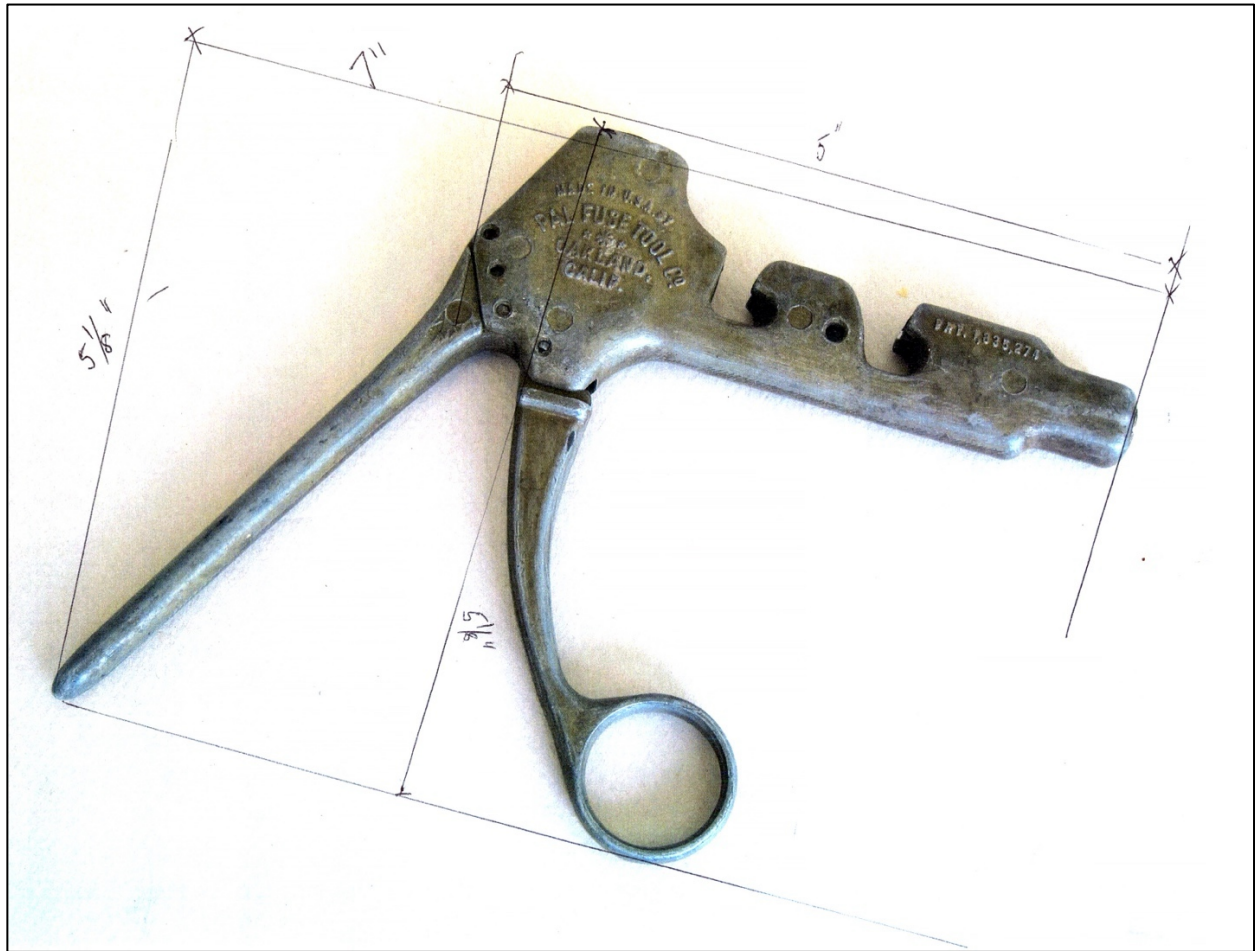


Close-up, side 2

¹ "Pot metal . . . is an alloy of low-melting point metals that manufacturers use to make fast, inexpensive castings . . . There is no metallurgical standard for pot metal. Common metals in pot metal include zinc, lead, copper, tin, magnesium, aluminum, iron, and cadmium. The primary advantage of pot metal is that it is quick and easy to cast." Wikipedia, "Pot Metal," https://en.wikipedia.org/wiki/Pot_metal, visited 2/25/25.

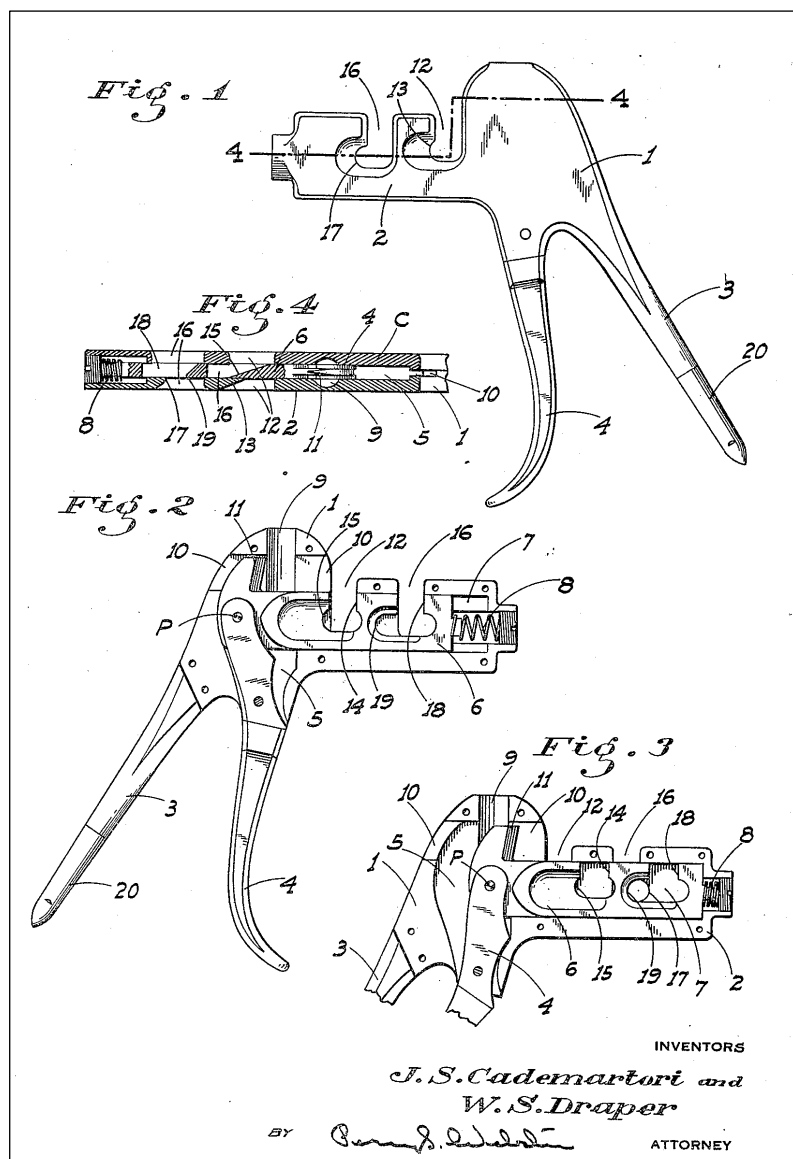
The patent for the tool is dated December 8, 1931, Patent No. 1,835,274, issued to Joseph. S. Cademartori and Wallace S. Draper, of Columbia, California. Columbia is in the foothills of northern California. It was founded in 1850 as a boomtown during the California gold rush (1848-1855). Columbia still exists today as part of a National Historic Landmark District.

The inventors of the tool were Cademartori and Draper. The tool is called a "Fuse Cutting and Splitting and Cap Crimping Tool." The actual dimensions of the tool are not shown on the patent drawing or given in the description, but Tony Moon has very cleverly drawn them on a photograph of his example.



Tony tells me that his example is exactly like mine. It is made of pot metal and has a slightly gold finish. His example is unbroken and seems to work fine. Tony says that the internal cutting bar on his example has a steel cutting edge. When Tony purchased his example of the tool, I was watching the eBay listing carefully. I had decided not to bid on this example both because I already owned an example and also because I wanted another collector to have the opportunity to own one. Tony was the only bidder to recognize the unusual nature and rarity of the tool.

When Reg found this tool years ago, it was owned by an old powderman. It was sitting on his mantel together with the box that it came in. I imagine that he had tried to use it, but it had broken almost immediately. I haven't dared to operate the tool fully for fear it will break even more. The patent number is cast into the front of the tool.



The patent illustration differs in certain respects from the tool itself. The most obvious difference is in the front handle. The front handle of my example has a finger hole, that I'm guessing accommodated the little finger of either hand. That would stabilize the tool when squeezing the handle for cutting fuse or crimping a cap. It probably also meant that more pressure was put on the handles than the cast body could withstand. The patent description refers to a removable "cover plate," (Fig. 4, C) located in the upper part of the tool, that can be taken off to gain access to the inner workings (Fig. 2). No such removable plate is evident on my example. The fixed handle (3) is secured to the body with what appear to be pins. When squeezed, the movable handle (4) pivots within the body of the tool, forcing the sliding fuse cutter and cap crimper forward. At the rear of the cutting bar is a vertical blade (11)

that slides across a hole in the top of the tool (9). A cut fuse may be split by inserting it into this

hole and squeezing the handle. The sliding cap crimper, fuse cutter, and fuse splitter is returned to its open position by a compression spring (8) in the front of the tool. The fixed handle incorporates a dynamite punch (20) at its bottom end. The patent describes this as being made of “copper or other soft metal.” In my example, it is part of the casting. A “removable pin” (P, Fig. 2) secures the front handle to the body. Because of the fragility of the tool, I have not attempted to remove this pin, nor am I sure that it can be removed because it seems to be part of the cast body of the tool. The patent states:

“While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.”

While this would allow some departure from the patent description in the actual construction and manufacture of the tool, the patent describes the body and working parts of the tool as “being necessarily [made of] steel or other hard metal in order for the tool to have the necessary rigidity and wearing qualities.” The cast, pot metal construction of my tool belies this description. The Wikipedia description of pot metal states that “manufacturers sometimes use it to experiment with molds and ideas (e.g., prototypes) before casting final products in a higher quality alloy.” Could the existing examples of the tool have been experiments or prototypes that were abandoned because of the excessive time and cost that would have been required to manufacture the tool of steel? Perhaps, but we will never know. Had the tool been properly made, it might have been a very effective and convenient loading tool.