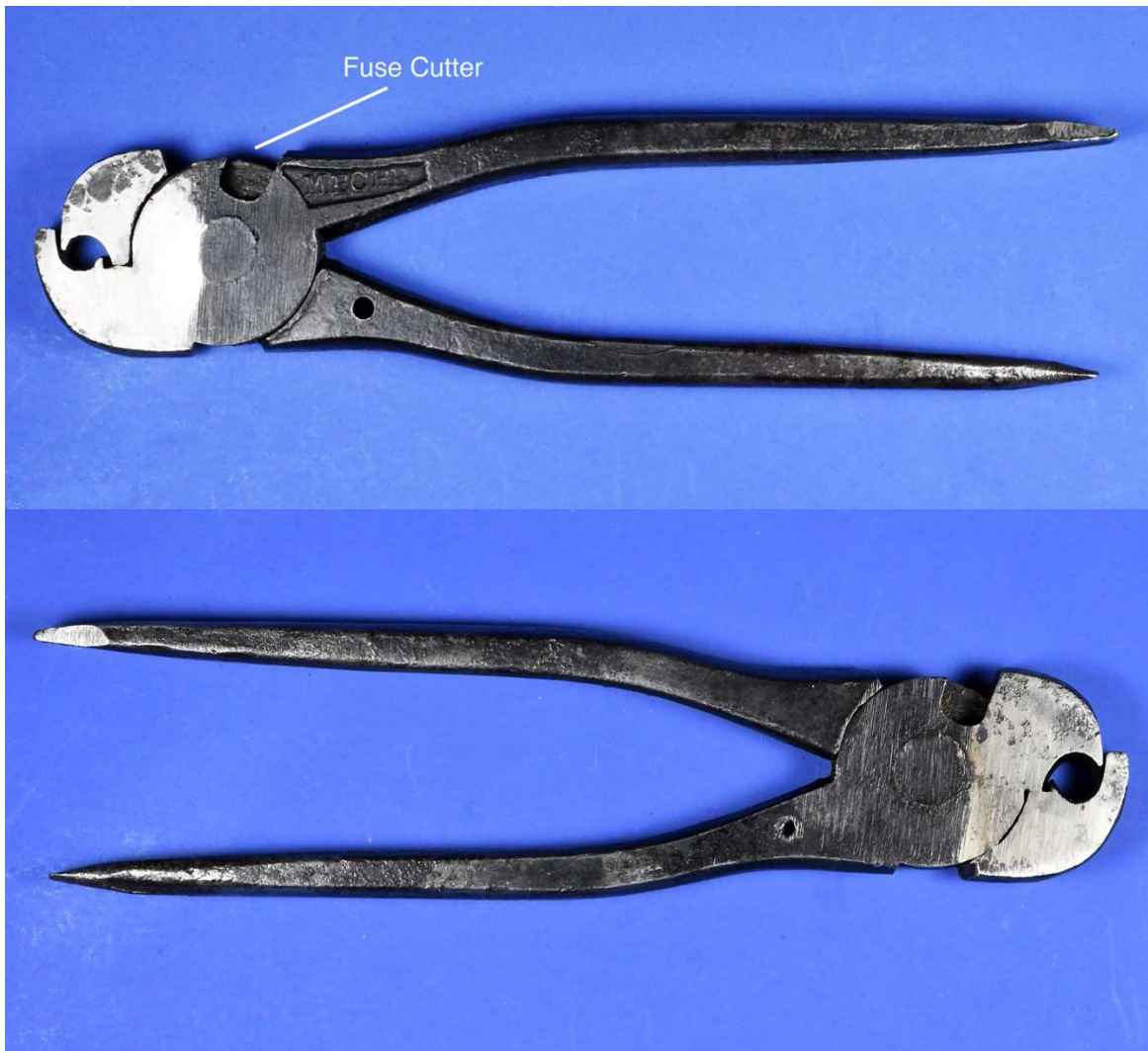


Two Pairs of French Blasting Cap Crimpers

Douglas K. Miller

Here are two more sets of blasting cap crimpers from Reg Pattee's collection. They are both French. Each is quite hefty, and each probably produced a very different crimp.

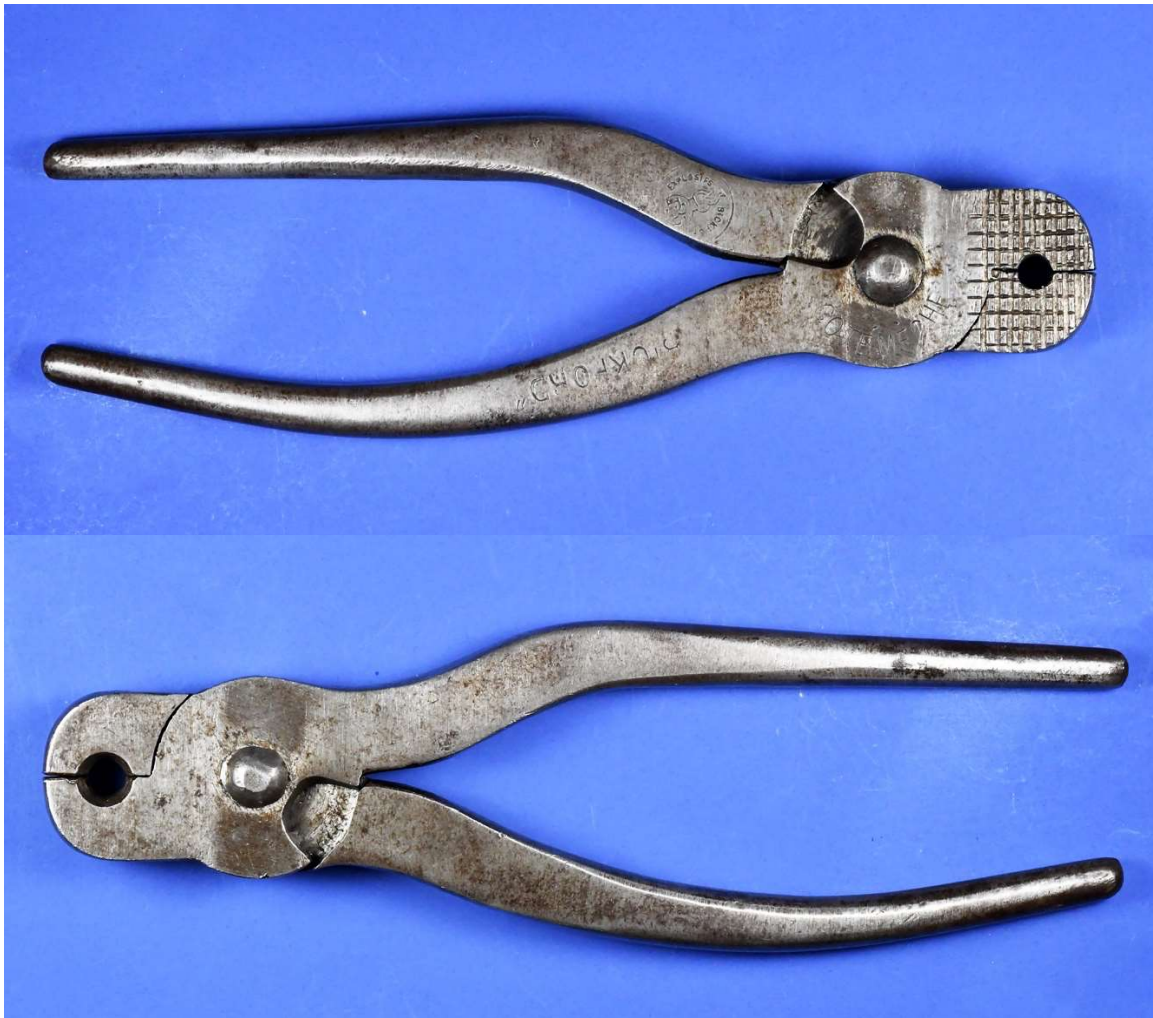
The first set is plain and has a blackened finish. It is 6.25 inches long and weighs 5.8 ounces. Compare this with a pair of Atlas No. 2 crimpers, which are 7.25 inches long and weigh 5.0 ounces. The French crimpers incorporate a fuse cutter on one side of the jaws, a dynamite punch on one handle, and a screwdriver on the other handle. A wire stripper can also be seen on the lower handle near the jaws. The word "MECHE" is stamped into the upper handle near the fuse cutter and seems to point to the cutter. I believe this is intentional, as the word MECHE means "FUSE." Otherwise, these crimpers are unmarked.





This is a closeup of the jaws showing the word MECHE pointing to the fuse cutter. If you look closely at the jaws of this crimper as shown here and in the first photo, it looks like this crimper would produce a somewhat oval crimp, perhaps with a vent hole, that was almost certainly not water proof. However, it may have been used to crimp a cap repeatedly as described below.

The second set of crimpers is much more interesting because of its design and its markings.





These crimpers are 6.12 inches long and weigh 5.3 ounces. They incorporate a fuse cutter (marked by the arrow) below the crimping jaws. Stamped into the crimpers below the pivot pin are the words “COTE MECHE,” which mean “FUSE SIDE.” Note that the sides of the jaws on this side of the crimper are heavily knurled, while the sides of the jaws on the opposite side of the crimper are smooth. On the upper handle is a trademark that looks like a “flaming bomb” with the initials “DBS” inside, surrounded by the words “EXPLOSIFS BICKFORD,” all enclosed within a circle. The opposite handle is also stamped with the name BICKFORD.

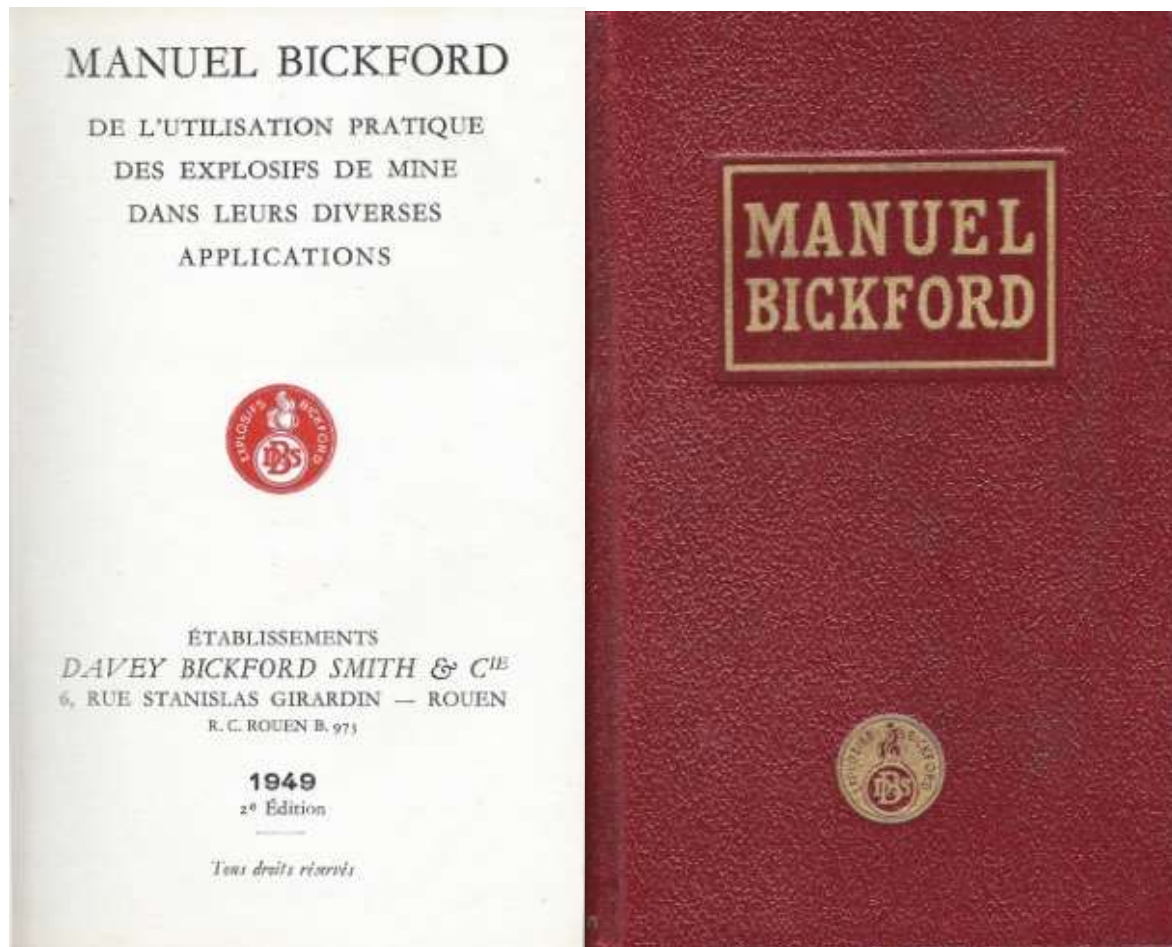


Another unique feature of these crimpers is the crimp they would produce. The crimping jaws are tapered and would seemingly produce a “conical crimp,” wider on one side, narrower on the opposite side. You can see this by comparing the diameter of the crimping opening on one side of these crimpers with the diameter of the opening on the opposite side. The opening on the heavily knurled side, the side marked “Fuse Side” (COTE MECHE), is smaller in diameter. What that tells you is that, after the fuse was inserted into the blasting cap (détonateur), the cap was inserted into the crimpers with the fuse protruding from the fuse side. But how would the powderman read the lightly stamped

words “Fuse Side” in the dark or in reduced light? He wouldn’t, but he could *still tell* which side was the fuse side by *feeling* for the knurled surface on the fuse side of the jaws. It’s a clever design.

The trademark and name on these crimpers stand for Davey Bickford Smith and Co. (“et Cie”). The name “Bickford” refers originally to William Bickford who, in 1831 invented safety fuse, and in conjunction with his son John, his son-in-law George Smith, and practical miner Thomas Davey, manufactured and marketed it. William Bickford died in 1834. After Thomas Davey also died, his son, Thomas Davey, Jr., continued the work of his father until he too died in 1863. Thomas Davey, Jr.’s brother, Simon, expanded the business in France as Davey Bickford Smith. This became the international company Davey Bickford, which still survives today.

I recently purchased a Bickford Manual from 1949. It is similar to DuPont's "Blasters Handbook." Here are photos of the cover and title page.



The Manual contains a drawing of the DBS blasting cap crimpers pictured above and an illustration of how they were used and of the crimp they produced. Here's a translation of the relevant portions of the Manual.

Cover page:

MANUEL BICKFORD

OF THE PRACTICAL USE OF MINE EXPLOSIVES IN THEIR VARIOUS APPLICATIONS

4

Pages 50-51

Attaching a safety fuse to a detonator using crimping pliers.

The ignition of a detonator should be caused only by the flame given off by a safety fuse. We will see all the precautions that are necessary to fix a detonator on a safety fuse. This last operation is called crimping, it must be executed with the greatest care and cannot be corrected.

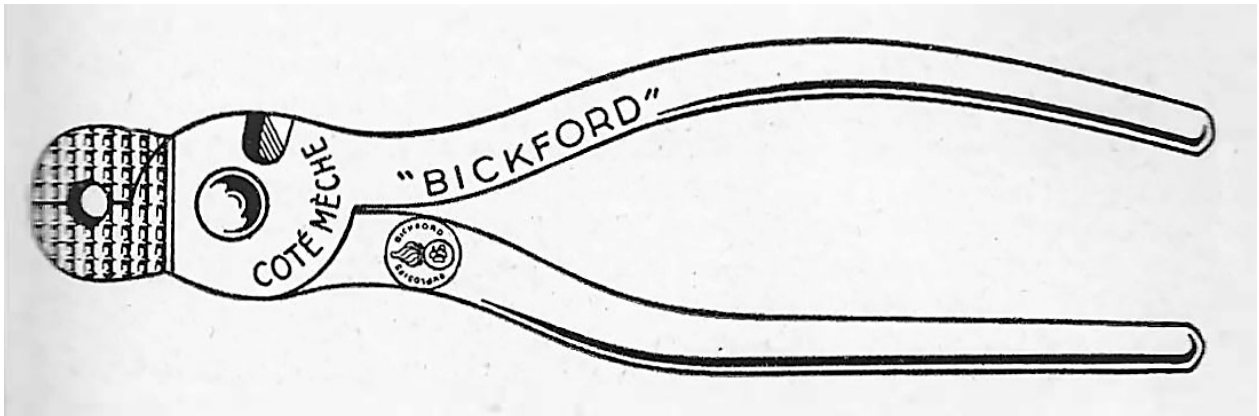


Figure 22. Crimping Pliers

Proper crimping can be assured only by means of a set of good crimping pliers, an excellent model of which is shown above.

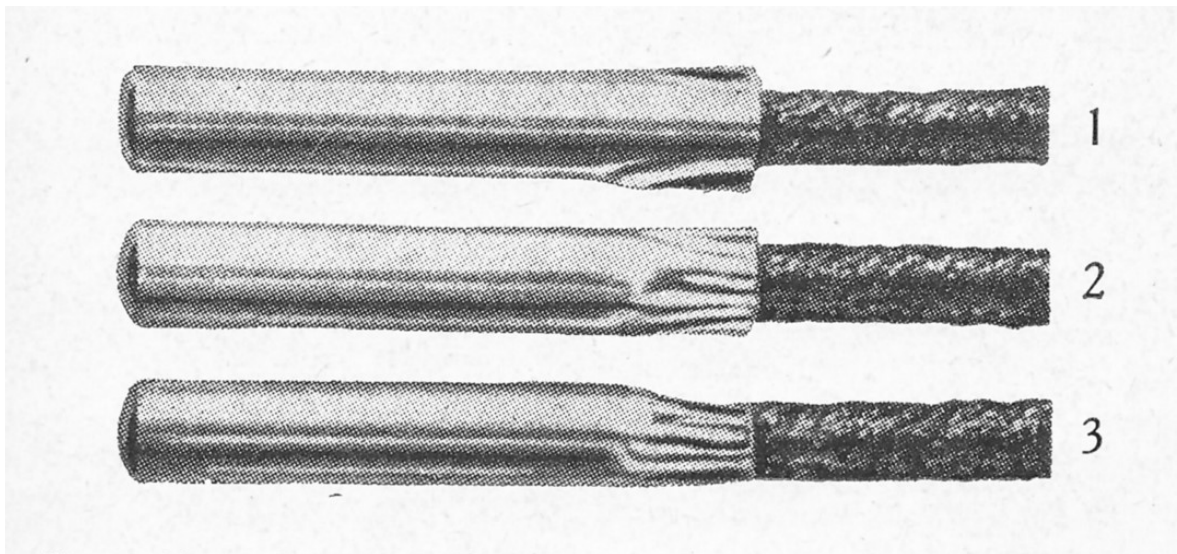


Figure 23. - Crimping of a detonator on a safety fuse by 3 successive maneuvers of the crimping pliers.

It appears from this illustration that the blasting cap was supposed to be rotated slightly each time the crimping jaws of this crimper were closed until a tight crimp was achieved. This is a wonderful set of crimpers from a company whose name is synonymous with blasting. If you can find a pair, grab them.