

Inletting the Grotesque Face Pistol Butt Cap

by Fred Stutzenberger

"It was copied from an original English Queen Anne pistol by the lost wax casting process," Reaves said. "I'm not having any more of those cast. That's one of the last ones."

I turned the brass butt cap casting over in my hand. The detail of the grotesque little mask was just magnificent. It reminded me of those faces leering down at me from the corbels on French cathedrals built in the Middle Ages. I just had to have it on a pistol.

That was several years ago. Last week, the reckoning of my impulsiveness arrived. When I got out that butt cap from the drawer under the workbench, I hadn't remembered those many little projections that would have to be delicately inlet into the butt of the pistol I was working on. Thinking about that operation brought a dampening to the brow and a trembling to the hand.

Once I got past being overwhelmed by the prospect of inletting such a complex casting, I decided to productively procrastinate by doing a bit of research on the history of the cap. Joseph Griffin (Bond Street, London), a prominent English gun and pistol maker of the 1700s, frequently employed the identical cap (cast by Jeremiah Ashley) on his silver-mounted holster pistols (Fig. 1). Apparently, similar grotesque-mask motifs were common on the butts of holster pistols destined for both Irish and English gentlemen of substance (Dixon 59).

The first task prior to inletting was to remove the big lug of brass left from the casting gate on the inner surface of the shell. There was no practical way to hold the delicate casting in a vise, but pressing it firmly into the padding of the bench support stabilized it enough to start removing the lug (Fig. 2). Still, it was harder than I thought – the cap was so delicate compared to the size of the massive lug – one slip of the tool could irretrievably mar the detail of the edge. I drilled three 1/16" holes across the base of the lug then finished it off carefully with a Dremel tool. The rest of the casting required minimal clean-up, eliminating any further excuses for delay.



Fig. 2 – Removing the heavy casting lug from inside the thin shell of the cap was a delicate operation.

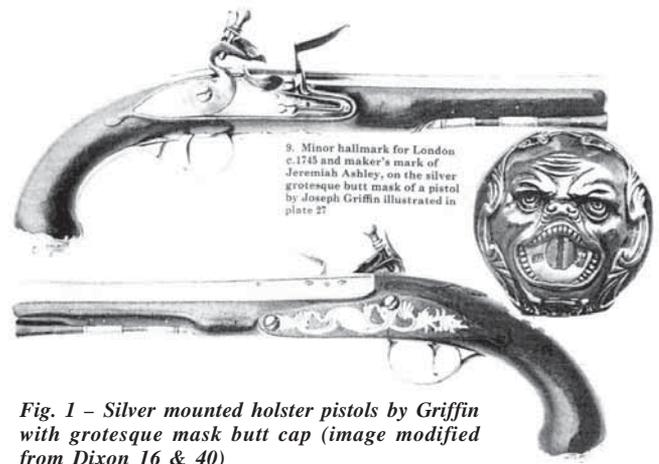


Fig. 1 – Silver mounted holster pistols by Griffin with grotesque mask butt cap (image modified from Dixon 16 & 40)

In an effort to gain some encouragement from the past, I leafed through my pistol picture books and surfed the web to find old original examples of butt caps with complex edges. While there were plenty of pistols with grotesque faces, none of them had the complex mating surface of my casting. Talking to my gun-building buddies was no consolation either. One suggested that I "just worry it on," a vague formula that held little promise of success. Another muttered "You're on your own with that one."

So be it. I embarked on a resolutely methodical approach, starting with a paper pattern, the curvature of which fit the inside of the cap (Fig. 3). Working off of that pattern, I sawed

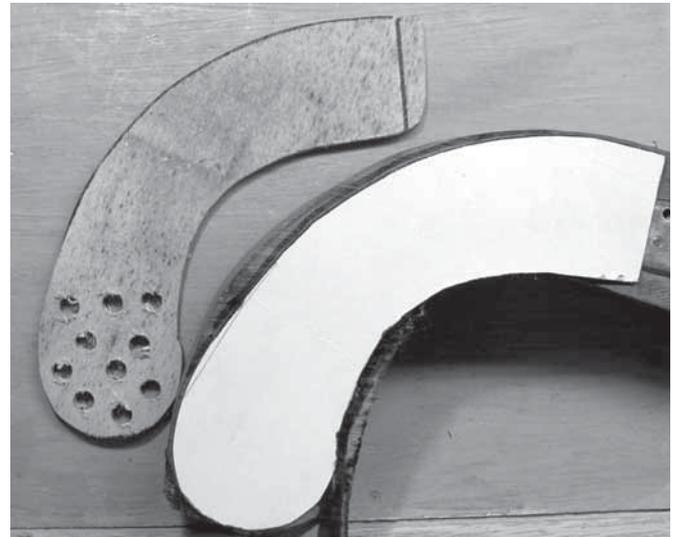


Fig. 3 – A pattern cut from a manila folder is durable enough to be useful throughout the stock rough-shaping.

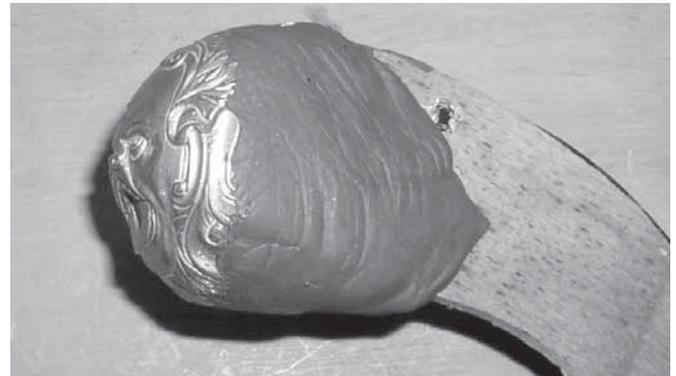


Fig. 4 – Pressing the cap into the ball of modeling clay produces a true representation of the inlet.

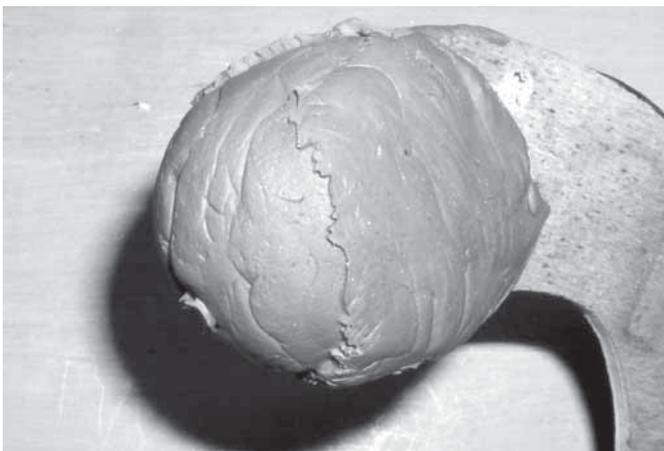


Fig. 5 – This model, clamped upright to prevent damage, served as a reference throughout inletting.

out a plywood form and pressed modeling clay over its rounded end. This was pushed into the cap to get a 3-D model of what the butt inlet would have to look like (Fig. 4, Fig. 5). I referred to that model constantly when shaping the wood.

After tracing the outline of the cap on the butt, the excess wood was cut away from the tracing to a level matching the depth of the cap (Fig. 6). Shaping a matching globe up from that level took longer than I expected, but eventually I had a curvature roughly matching the inner contour of the cap (Fig. 7). However, a really close match was necessary, considering

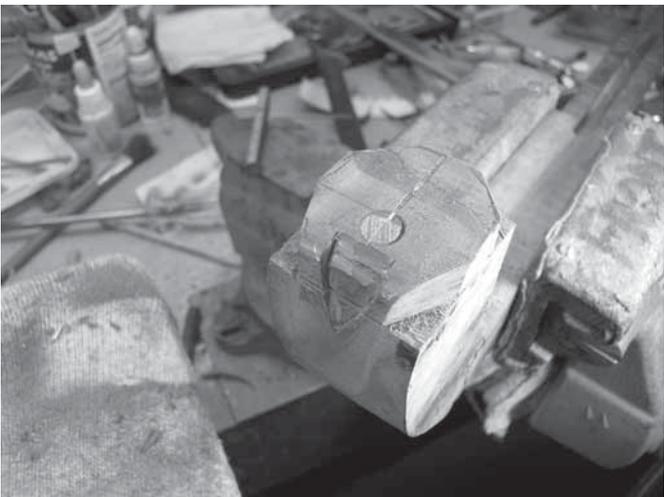


Fig. 6 – Unlike the fitting of a rifle buttplate, getting rid of the excess wood around the circumference of the cap is necessary early on. Note the hickory dowel that reinforces the cross-grain of the butt.



Fig. 7 – At this stage, the globe of wood is rough-shaped to allow the cap to start settling into place.

the thinness of the cap wall and its susceptibility to denting. It would have to be well supported for the next phase of the fitting protocol and a bit of persuasion would be required. To prepare for that, the return that would eventually extend up the outer curvature (rear) of the butt had been kept out of the fitting process by being gently bent away from the wood as the cap settled down on the globe.

Once the cap could be gently pressed down upon the globe, the remainder of the excess surrounding wood was removed (Fig. 8). The fine fitting by coating the inner cap with inletting

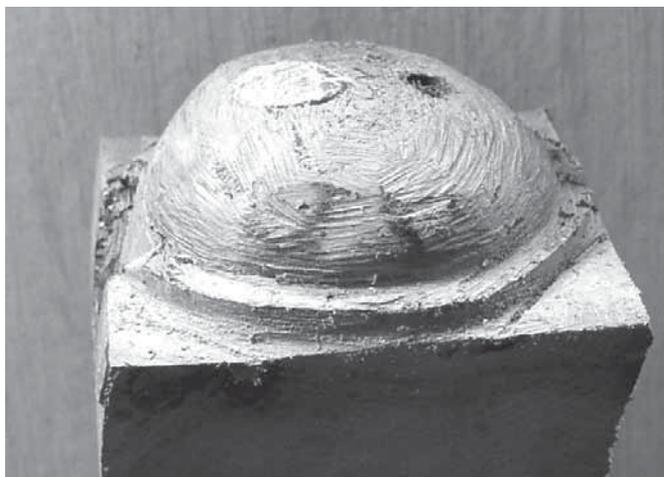


Fig. 8 – Here, the rest of the excess wood has been removed to leave only a thin rim of wood that will receive the many points and projections of the cap's rim. Note the points of interference on the globe that must be carefully rasped away to allow settling of the cap.

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Fig. 9 – This screw is the sole means of butt cap attachment (other than the close inleting). The screw head has been reduced to allow sufficient clearance past the teeth.

black could begin. Coat and press, coat and press, rasping away all the black spots from the surface of the globe until it consistently settled into place around its circumference with its many points and protrusions resting on the narrow wooden shelf. At this stage, a #8 x 1" wood screw (liberally lubed with beeswax) was turned into the mouth of the grotesque face, making it all the more grotesque in its appearance (**Fig. 9**). Over the course of the fitting, I wore out the slot of the first screw, turning it in and out so many times that its slot became a scarred V that no longer was able to contain the torque of the screwdriver tip.

Now the tedious part began, making use of scalpel, skill knife, veiner, and gouge, carefully cutting away each little black mark while constantly consulting the clay model. With the fitting of the points, the globe required further lowering by rasping away all the interfering wood. Each reiteration required removal of the cap for coating its edges with black, drawing it down firmly by running the screw tightly into the butt, tapping around the surface of the cap with a rawhide mallet to further drive the points of the rim into the wood, then removing the screw and doing it all over again.

Early into this phase, I realized that if a little bit was good, a whole lot was *definitely* not better. In one's seventies, work while standing at the bench is best done in small, disciplined doses that don't push the joints to complain, the eyes to blur, and the wandering mind to rebel. No need to be macho about it. A couple of thirty-minute daily sessions spread out over

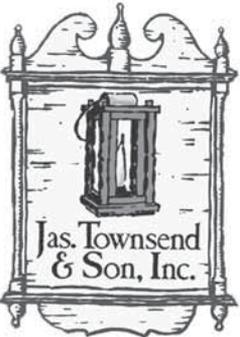


Fig. 10 – Many little indents are now visible in the ledge around the globe as well as points of interference that need to be removed.

several days and interspersed with other constructive activities (like watching college football) will eventually provide the patience to produce a ring of tiny little inlets (**Fig. 10**) that allow the cap to settle into place (**Fig. 11**) without noticeable gaps. The stock needs final shaping and sanding. It looks good now; hopefully the cap will appear to have "grown" over and into the wood. At this point, whether I have achieved that goal must await application of the stock finish.



Fig. 11 – The cap is now in place with no noticeable gaps. It will still take a lot of final sanding, polishing and a bit of engraving to fill out some of its features.



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Meanwhile, that little return at the back of the butt had been flapping in the breeze like a puppy's tail at feeding time. The return was gradually bent back into contact with the wood, inletting it a little at a time, starting at the base and gradually working it down through multiple applications of inletting black, tapping it gently, removal to cut away the black areas of interference, again and again until it laid flush with the wood with gaps (Fig. 12).



Fig. 12 – The return has been inlet flush with the wood surface. A thin layer of wood will be removed to allow the raised areas of the casting to stand a bit proud.

Throughout this process, I was repeatedly reminded of Chuck Dixon's question familiar to pistol builders: "How does the smith hang onto a pistol stock while working on it? Getting a grip on and maneuvering the smaller stock into solid yet convenient working positions to perform intricate inletting, shaping and carving can be ... exasperating!" (Chandler and Whisker 61). My answer to that vexing problem has been the addition of two adjustable L-shaped, padded rests (Fig. 13) that can be moved up and down the facing of the workbench via slots in the vertical arms and fastened securely by two wing nuts. Both supports, spread farther apart from the vise, are used for rifle work; obviously only one close to the vise is needed for pistols. That, together with leather-faced inserts that securely fit the jaws of my six-inch swivel-base vise, will support and stabilize the stock in any required position.

The tools required for the inletting of this complex butt cap were nothing more than I already had around the shop (Fig. 14): gouges including the little V-shaped veiner with which I also do my incised carving, a few fine-bladed knives kept very sharp, a little wood rasp, a few homemade miniature chisels ranging from 3/16 to 1/16" (courtesy of Robert Mims), plus a rawhide mallet sparingly used as a "persuader" for the final fitting of the cap.

This project has greatly elevated my respect for the old-time gunsmiths working under conditions of poor lighting and sweltering heat or drafty chill to produce fancy pistols for gentlemen



Fig. 13 – This adjustable rest, like the cantilevered lighted magnifying lens, was invaluable during the inletting process. The second lamp was used for oblique lighting to shadow imperfections in the inlet.



Fig. 14 – The tools used in the inletting are pretty standard items that are necessary for rifle carving and inletting.

of substance to protect their coin against highwaymen and their honor against affront. It is likely that some of our more experienced readers will respond "Didn't you know that you could have..." in regard to some aspect of the protocol described here. In that regard, I would rather learn from others than teach myself by trial and error, so reasoned comments are always welcome. For others, I hope that my effort will encourage them to explore their own inletting adventure while that grotesque little face mocks their efforts until it is forced into well-inlaid submission.

References

Chandler, Roy F. and James B. Whisker. *The Kentucky Pistol*, Old Bedford Village Press, Bedford, PA, 1994.

Dixon, Norman. *Georgian Pistols. The Art and Craft of the Flintlock Pistol 1715-1840*. Lionel Leventhal Ltd, London, 1971. **MB**



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