

Billets & Blades

THE OFFICIAL PUBLICATION OF
THE NORTH CAROLINA CUSTOM KNIFEMAKERS GUILD

SPECIAL POINTS OF INTEREST:

- The next **North Carolina Custom Knifemakers Guild** meeting date: April, 20, 2019 at MCC
- New Tee shirts are in come and get a couple



Pictured left to right: Gene Smith, Garrett Clay, Logan Walton, Rob Harvey

**Congratulation Garrett Clay on winning the
title of King of the Guild for 2019**
(second mug from the left)

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ABOUT THIS PUBLICATION AND OUR GUILD

Billets and Blades is the official publication of the North Carolina Custom Knifemakers Guild. It is compiled and published in four annual issues, with two additional special publication dates possible each year.

The North Carolina Custom Knifemakers Guild was formed to meet the needs of the growing body of custom knife makers in the southeastern United States. The purpose of this newsletter is to serve as a medium of exchange for the members of the NCCKG.

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Advertising Policy:

The NCCKG accepts no paid advertising as a matter of policy. From time to time, advertisements may appear that are deemed by the officers to be in the best interest of the Guild. Space for advertisements is offered free to Guild members who wish to promote a service or offer specific items for sale. The officers and editor reserve the right to edit advertisements for brevity.

Members, please submit ads to the one of the board of directors listed on the following page.

FROM THE EDITOR

If you are a new member, please make sure that we have your correct email and physical mailing addresses. You may send this information to us via email.

If you are currently receiving *Billets and Blades* but are no longer interested in receiving it please let us know.

If you know of someone who may be interested in becoming a member, please let a board member know and we'll be happy to mail a copy of the current newsletter to that person.

Existing members, please check the website to verify that we have your correct information. Especially your correct email address so you may be contacted should the need arise. We are always in need of pictures, articles and ideas on how to make the website and newsletter better. Please contact a board member with any suggestions.

LETTER FROM THE PRESIDENT

Letter from the President. January 2019

Well summer is coming. We as a Guild have a lot coming on. Here are some things to be thinking about.

The Blade Show is coming up in June and we have a table again this year.

If you are wanting to work the table and display and possibly sell some of your work. Please contact Murphy Ragsdale . Murphy has agreed to set up the table Friday and have it up and running when the show opens.

The Guild has been contacted by the McKissick Museum in SC. The Museum will be doing an exhibition on custom knifemakers from North and South Carolina. They are looking for makers in all stages of knifemaking from beginners to Master Smiths. The knives will be on loan to the museum for 1 year. From June 2020 till June 2021. I will bring all the info to the April meeting.

Here's a heads up, Barry and I will be bringing up an event to the board for a vote. You will want to sharpen your writing and demo skills.

This has been a rough time for some of our members. Joel Sandifer was in an accident and broke both legs. He is recovering well and we hope to see him at the April meeting

Kevin Novinc had open heart surgery and is recovering slowly. He to is doing well. I hope he too will make the April meeting.

I (Andy Sharpe) had surgery on my right carotid artery . The Dr. removed a 90% blockage. I am banned from the shop and driving for another 2-6 weeks.

Please keep us in your thoughts and prayers.

Getting old is rough. This is why we need to get young people involved in our craft. Take the time to share your knowledge with someone else. This is what the guild is all about.

Barry needs both articles for the newsletter and people to sign up for demos. It is important that we produce a good newsletter. If someone sees a newsletter, at that time the newsletter is representing the guild and what we do. If someone sees a newsletter, knowing nothing about the guild. This publication should be enough to get that someone interested in the guild and make them want to be a part of the guild. We really need articles. The guild will pay \$25.00 per article. You must be a paid member to submit articles .

Andy Sharpe

President, NCKMG

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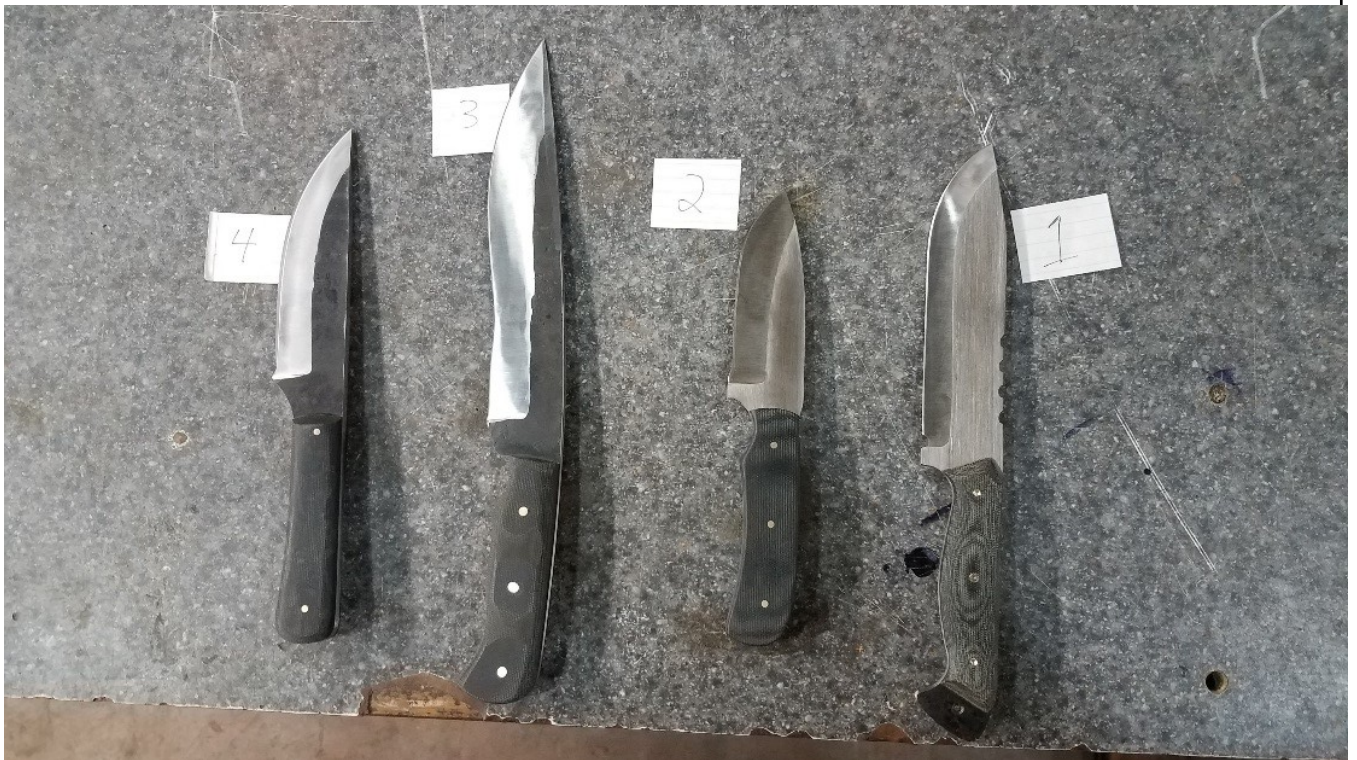
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Editor & Webmaster

Barry Clodfelter

Below are the knives (in no particular order) completed in this year's 4 hour build off, and what a good looking set!

Congratulations to [Garrett Clay](#) on winning this year's King of the Guild build off! It was a fierce competition again once again. Competing this year was Gene Smith, Garrett Clay, Logan Walton, and Rob Harvey. The build off this year allowed a runner and I think it kept the guys moving and helped avoid a lot of the crowd in the room. This will likely become a standing part of the build off so in 2020 come prepared with a runner in mind and plenty of game. There may be a few additional rule changes next year as we fine tune the format of this competition.



The Split Guard

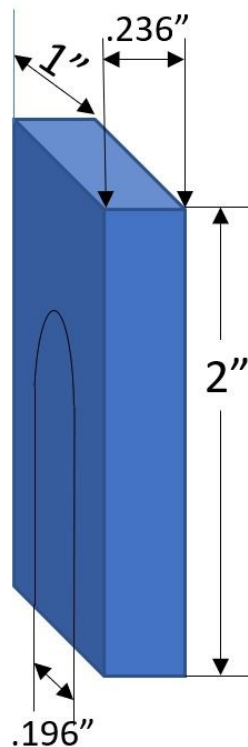
By Darrin Sirois

I'm going to try and demystify the split guard and share some of the lessons I've learned while making these throughout the years. First, I do not profess that my techniques are the best or fail proof, but through trial and error they work for me.

From the very first one I attempted I've used a mill. It's a small Grizzly and by no means is it an expensive piece of equipment. I mention this because I've never tried to attempt fabricating a guard the old school way with a drill press and files.

The very first step in considering a knife with a guard is planning it out in detail. There are two critical dimension you should be concerned about. 1. The final thickness of the blade, and 2. The thickness of the guard. When I was planning out how I wanted my final thicknesses, I took into account what bits, or tooling were available to accomplish what I wanted. For example, I like to finish my tactical knives around .195" ish. It just so happens that a 5mm ball end mill is exactly .196". That's perfect! For my guard I like to keep them as close to .250" thick as possible. After a bit of research, I found a 6mm ball end mill is .236". That's perfect!

So now that I've committed to using metric tooling, the below drawings will show you how I plan on milling my guard.

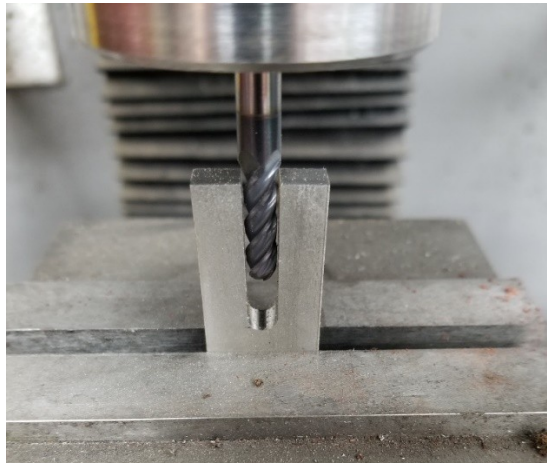


The material I buy is 303 stainless steel that is 1" wide and 1/4" thick. It's very common, easy to find and fairly inexpensive. I use 303 for a few reasons. It has incredible corrosion resistant

properties and machines much easier than 304. If you wanted to use a stainless that you can heat treat, you might consider 410 or 416.

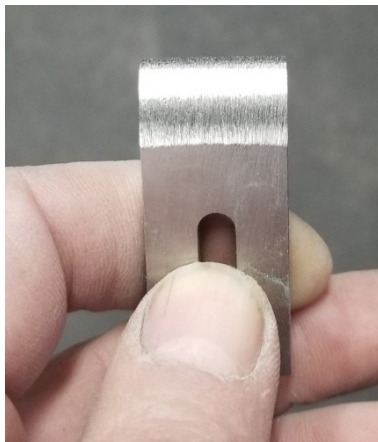
Because the material is .250" stock, I have to remove .014" to make it exactly .236". I do this with a surface grinder a thou at a time, but it can easily be accomplished with a flat platen and a set of calipers.

Milling the .196" (5mm) slot is pretty straight forward. Notice I chose to mill it in the vertical position. I picked this way because I have a few machinist friends who are way smarter than I am and said "it's better to walk the bit down each pass". Though, they also told me it can be done in the horizontal position but it's more difficult keeping track of the swing (X axis) each pass unless you have a DRO or a hard stop, none of which I use. (NOTE) ***If you do it in the vertical position, a ball end mill is highly recommended. If you do it in the horizontal position, a regular mill will work because the bit itself will obviously leave a round finish.***

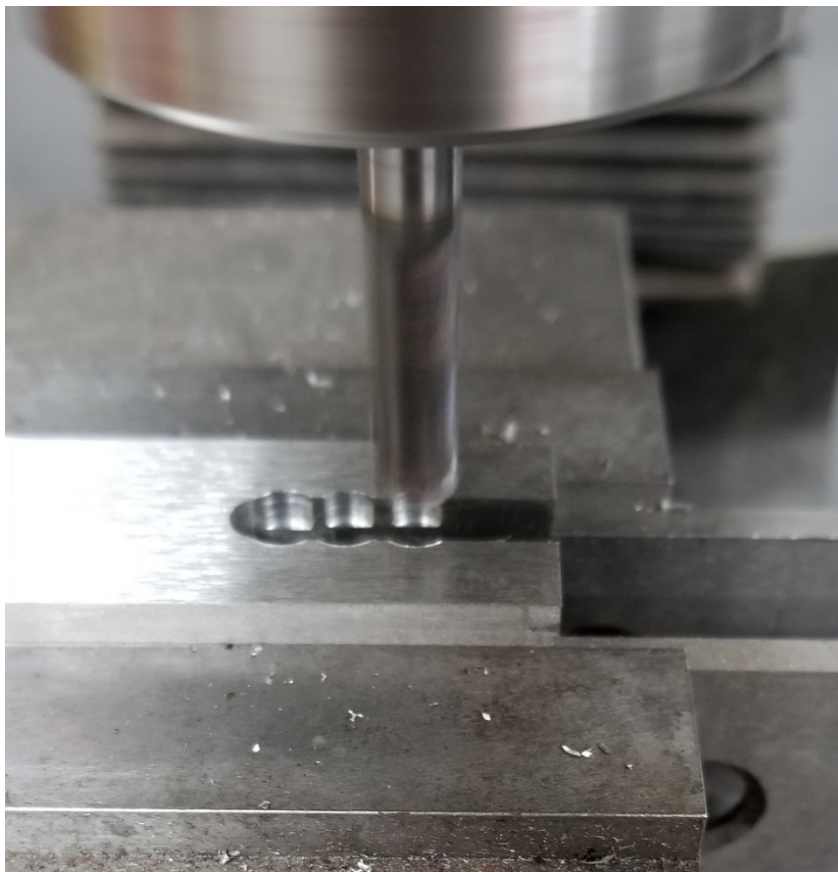


There are two more things I do to the guard before I set it aside.

Pre-finish the front rounded edge. I've done this after it was attached to the knife and it's much more difficult, so doing it prior pays off dividends.

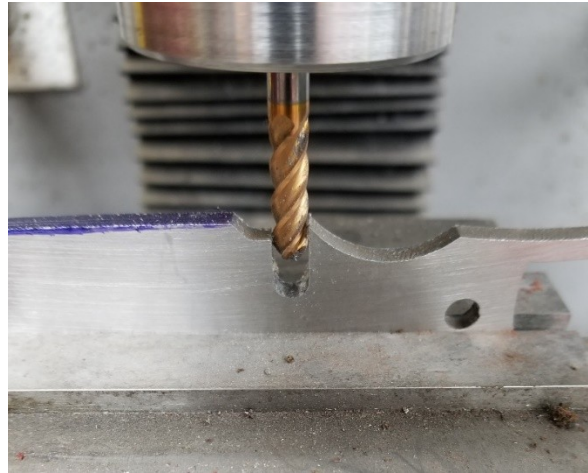


2. Mill what I call glue pockets on the back side. (More on that later)



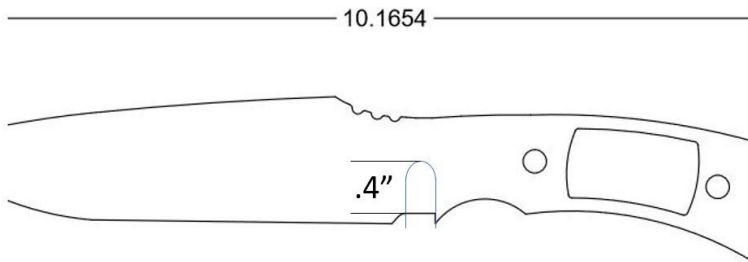
(Milling the slot)

My next step is tackling the blade. As mentioned earlier I'll finish the blade at exactly .196" to accommodate the slot in the guard. My technique is to surface grind the blade to around .2" before heat treat. I like to leave a little on so I have wiggle room to remove scale, hand sand, and get it to exactly .196" after heat treat. I always grind my blades soft unless it's a very thin kitchen knife. With that said, I grind and finish with a 180 belt so cleanup after H.T. is easy and quick. The last thing I do before it goes in the oven is to mill the slot.



I flip the blade upside down in my vice and tackle it in the same manner I did the guard. You will have to put some thought into how deep each slot should be milled. I mill .4" into the tang with the 6mm bit. It leaves plenty of steel left for support. If you don't go deep enough, your guard won't slip up high enough, if you go too deep, you won't leave enough steel to support the knife during hard use.

(Milling the Tang)



From this point the blade is now ready for heat treat. Once the last temper is complete, it's nothing more than taking off a few thousands off each side until I get the fit I want, see photos below of front and back fit.



The last step is securing your guard to the tang. There are several ways to do this and I think I have tried them all. What my final solution was may not sit well with a lot of traditional knife makers but after testing, abusing and evaluating my final technique I'm comfortable with my decision. Including but not limited too are a few techniques below

TIG weld without wire. This worked so well I was ecstatic, the problem was access to a TIG welder with the right gas.

Silver Solder. An age-old technique used by thousands. This technique works well to cover any imperfections and provides structural integrity. With todays machinery and precision devices like a Mill, the seam/fit can be near perfect and a solder joint would be unnecessary to hide anything.

Pin through guard and tang. I've done this for years but it's a difficult process. (At least for me) My process is to heat treat then fit guard. Because of that, I have to drill hard steel. My technique is to use a solid carbide ball end mill. I've tried regular end mills and standard point drill bits, but nothing works as well as a ball end bit.

Glue. There are two types of epoxies I use and both work extremely well. JB weld (NOT THE 5 MIN!) and a new two part epoxy made just for steel by "System 3" Remember the glue pockets I put in the guard? Those are what I now use to create surface area for the epoxies to hold and bond the guard to the tang.

The last two photos are clips from a video I made in the woods. I took a small hatchet and hammered one of my split guards into a tree, then I hung from it. I did this to prove that the guard would not slip, loosen, dislodge or separate from the tang and it was successful.



I hope this article helped out someone on the fence about trying one and it made sense. I also hope to get feedback from other knifemakers who have tried other techniques and share them with me!
Darrin S.

2019 Montgomery Community College Knifemaking Schedule

Stock Removal Basics with the Jones Brothers

May 10-12th 9am-6pm

Cost: \$146.60

Explore the basics of handmade knives for bushcrafting and survival situations. Materials included.

What a great line up of classes for 2019! This list will be updated as more are announced.

Contact Montgomery CC for additional class information or to register for a class.

UPCOMING 2018 GUILD MEETINGS

Saturday January 19th, 2019

Location: Montgomery Community College

Saturday April 20st, 2019

Location: Montgomery Community College

Elections to be held for VP and a director.

Saturday July 20st, 2019

Location: Montgomery Community College

Saturday October 19th, 2019

Location: Lowe Warner Park

Dues are due in October!

Events Include:

Board Meeting begins at 8:30am, to be followed by our General Business Meeting & Iron in the Hat

Demos:

Will be determined and published on the website prior to the meeting.

Blade Show – June 7-9, 2019

Contact Murphy Ragsdale for table information and volunteer to help!

If you are not a juried member and wish to become one bring at least three knives for the leadership team to review.

The **North Carolina Custom Knifemakers Guild** was founded in June of 1992. Our goals are to:

- Promote the craft of custom knife making
- Seek to constantly improve the craftsmanship of its members
- Provide an educational resource to anyone interested in the craft
- To encourage new makers and provide a forum for their training

Through public knife making and forging demonstrations by a group or individual members, we try to display the craft and to educate the public. It is our intent to raise the general awareness of custom made knives and the people who create them. That is why there is no cost to attend one of our meetings, and we welcome anyone with an interest in knife making.

Our quarterly meetings are organized around speakers and various demonstrations of activities important to our craft. These speakers and demonstrations are from our members or experts in the field who come as our guests. As a training resource, our Guild is prepared to present any aspect of our craft to organizations that feel it would be beneficial and informative.

