

[Log in](#) [Register](#)[Forums](#) > [Showing Them](#) > [Engine Showcase - Finished ...](#) >

Gatling Gun

dnalot · Sep 30, 2019

Help Support HMEM: [DONATE](#)

1 of 4

[Next ▶](#)

Sep 30, 2019

#1

**dnlot**

Project of the Month Winner !!!

A little while back I mentioned in a post that I was working on a Gatling gun. I was asked to post photos but declined thinking it would be considered off subject. A moderator "Kvom" advised that a Gatling gun post was acceptable, so I posted a few photos of the project in progress without any complaints. The project is now complete and I would like to present it here.

The American ATF does not consider the Gatling as a machine gun as each shot is loaded cocked and fired mechanically by hand. Replace the crank handle with a motor and you get a room at the gray-bar motel.

I bought both the DE Gatling plans and the RG-G Gatling gun plans. I went with the RG-G plans because the action closely resembled the original gun. I built the action closely to the plans but deviated from them on much of the rest of the build. The RG-G plans do not look much like the original and it was in this area that I made changes. The RG-G plans include a plan for a Tripod mount and a Carriage mount. I had photos of a rare navel mount and so I went with that because it will take up less space on the display shelf.

Making the parts was fairly straight forward without any really complicated parts to make. The devil was in how close tolerance the action needs to be if you want it to function well. The other challenge is that most of the action can not be viewed. I probably assembled and disassembled this thing a couple hundred times fitting all the parts. I don't like taking time off from a project but I needed to do just that several times during the build. Tedious. Start to completion was 2 years. I took some really long breaks.

The one item that doesn't scale well is the force required to fire the round. It takes about the same amount of force to fire a rimfire .22 as it does a center-fire 45-70. The torque needed to rotate the moving parts is slight but pulling the firing pin's spring back is very noticeable.

Working order of the mechanism:

Viewed from rear rotation is clockwise. Top center barrel ~ receive round from the gravity magazine, as the gun rotates the round will be pushed into the chamber by the bolt while the firing pin is held back. By the time the barrel has reached the bottom the round will be chambered, bolt locked and the firing pin will be released. BANG. As the barrel moves upward the bolt retracts and the spent brass is extracted and ejected about ¾ of the way up to the top starting point. One full crank to load and fire first round, four cranks to fire twenty rounds and another crank to eject the last of the brass. Best speed is about 300 rounds a minute, assuming you have the magazines and someone to load.

Overall I am pleased with how it turned out and how reliable it is. It's easily as reliable as the original, unfortunately that's not saying much. And like the original, cleaning after use is a lot of work. It is fun to shoot and its firing cadence attracts a lot of attention at the shooting range.

Model is a half scale 1874-(sorta) Gatling gun.

Short barrel version: nicknamed a "Camel Gun".

The nickname came about due to a Colt Advertisement showing the gun mounted to a Camel's saddle horn. The barrels were shortened to save weight.

Weight: 24.5 pounds.

Length Overall: 22.5 inches

Barrel Length: 13 inches

Caliber: .22LR

Magazine capacity: 20

The original model fired a 45-70 round. Colt and others built Gatling's guns in many calibers for a variety of customers around the world. I don't think any were ever mounted to a Camel. Probably difficult to train them to keep their heads down.



[View](#)

[attachment 111454](#) [View attachment 111455](#) [View attachment 111456](#)



kwoodhands, steamin, Olli-Matti and 6 others

Sep 30, 2019

#2



dnlalot

Project of the Month Winner !!! | HMEM Supporter

Had some problems loading photos, will try again





Sep 30, 2019

#3

**dnlalot**

Project of the Month Winner !!!

HMEM Supporter

Detail of Cam that moves the bolts





Sep 30, 2019

#4

**dnaidot**Project of the Month Winner !!! HMEM Supporter

Detail of parts that retract the firing pins. The small movable part captures the cocking screw in one position, pulling the hammer back, or allows the bolt to move forward without cocking. The horn on the larger part will support (lock) the bolt in the firing position. These parts are shown in their rough condition, they were well polished before final assembly.



steamin, Robert Ritchie and minh-thanh

Sep 30, 2019

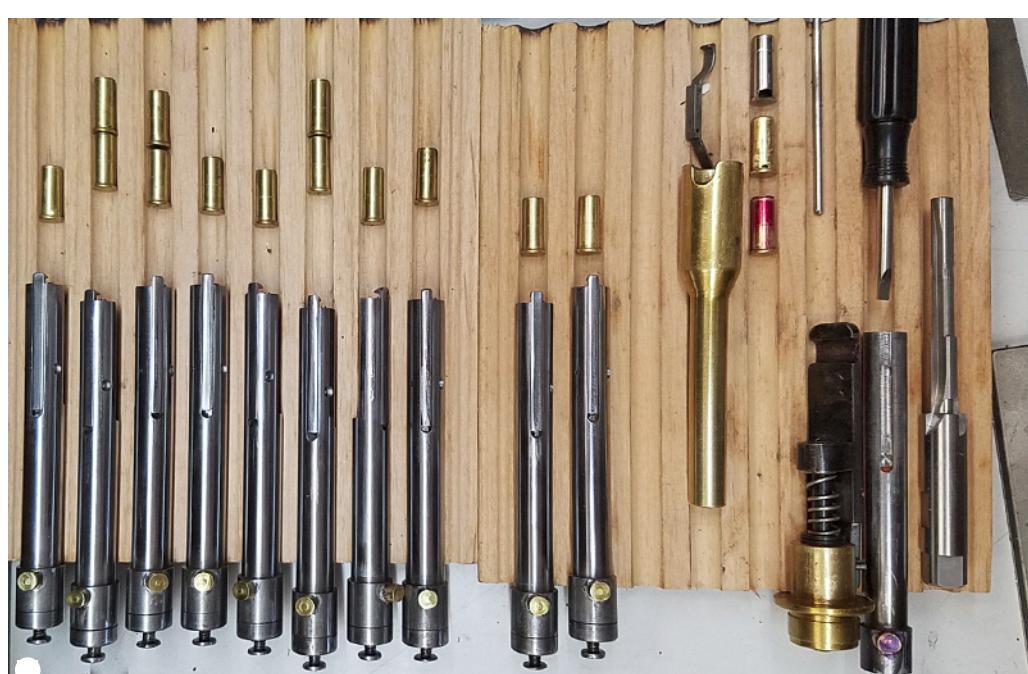
#5



dna lot

Project of the Month Winner !!! [HMEM Supporter](#)

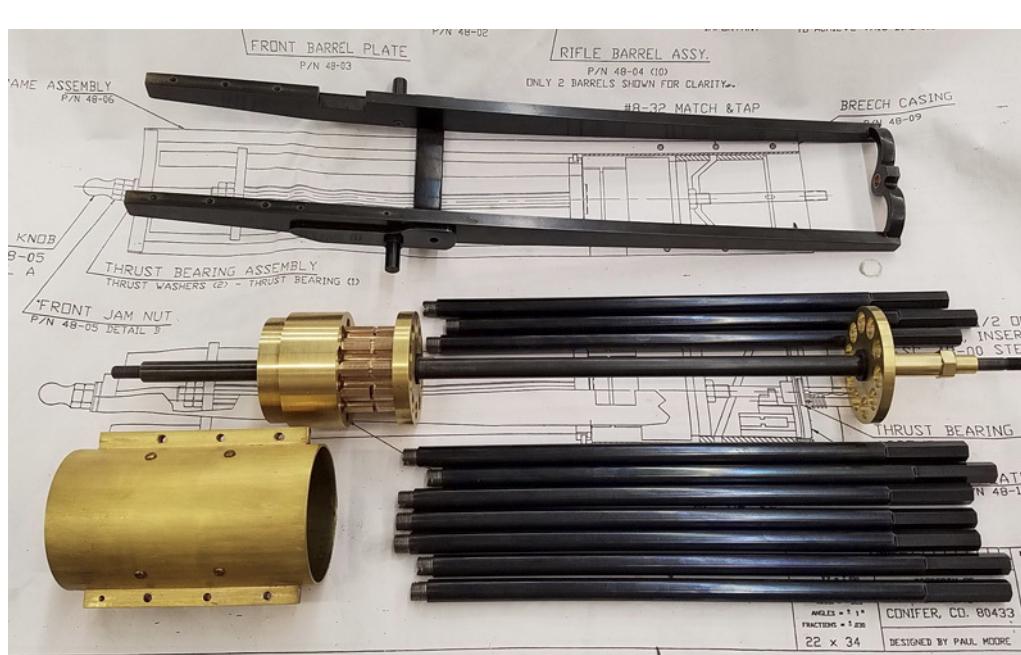
Bolts



Sep 30, 2019

#6

**dna lot**Project of the Month Winner !!! [HMEM Supporter](#)



OK finally got a handle on how to post photos. Promise I will do better next time.

Here are some links to my past engine postings

Snow Engine <https://www.homemodelenginemachinist.com/threads/snow-engine.25549/>

Minnie Traction Engine <https://www.homemodelenginemachinist.com/threads/1-75%C2%94-minnie-traction-engine.24759/>

Clayton Steam Wagon <https://www.homemodelenginemachinist.com/threads/clayton-steam-wagon-completed.24419/>

Bottle Engine <https://www.homemodelenginemachinist.com/threads/bottle-engine-completed.22722/>

My first engine <https://www.homemodelenginemachinist.com/threads/45cc-marine-steam-engine.21317/>

Mark T

Henrv. kvom, brotherbear and 5 others

Sep 30, 2019

#7

**Cogsy**

Well-Known Member

Fantastic work! This is the sort of project I'd like to have a go at myself but unfortunately where I live I'd be arrested as soon as I completed the first part so it's never going to happen.

G54AUST

Sep 30, 2019

#8

**retailer**

Junior Member

Excellent work very impressive !

Oct , 2019

#9

**VINCENT INGRAM**

New Member

I've just youtubed stalked your videos hoping to see this in action - I'm very impressed with your projects. Brilliant work.

Oct 1, 2019

#10

**Tim1974**

Well-Known Member

o yer you no we ALL want one , very very nice work

Oct 1, 2019

#11

**a41capt**

Well-Known Member

The price of the brass alone looks daunting!

Excellent work, I've toyed with the idea of doing one myself (I've got a box with twenty 16" .22LR barrels in it I bought at a yard sale), but I'm not so sure the boss would appreciate me spending a good part of her grocery money on the materials.

Beautiful piece of work, and if you post a link to any video of shooting it I, as well as most others, would be most appreciative.

John W

Oct 1, 2019

#12

**IceFyre13th**

Well-Known Member

Post the link to the video, please!!!!

Beautiful work!!!

Oct 2, 2019

#13

**stragenmitsuko**

Well-Known Member

beautiful work , a gatling is high on my "when i'm retired list" .

Would love to build one , but I fear it will be beyond what i'm capable of .

Pat

Oct 2, 2019

**harborfreight8x12**

Active Member

#14

Beautiful, you have awesome engineering and machining skills.

Oct 2, 2019

**Ken I**

Project of the Month Winner!!! Project of the Month Winner

#15

Never mind that it's not an engine - it's awesome workmanship and I'm so pleased you posted this.
I've also been toying with the idea of making one - need to check local regulations - which I'm pretty sure won't allow it.
Drool.....

Regards. Ken

Oct 2, 2019

**burkLane**

Active Member

#16

Excellent Work!

I noticed the Plan Title box shows Conifer, Co. in address. Had to look at his site, turns out he lives just south of me.

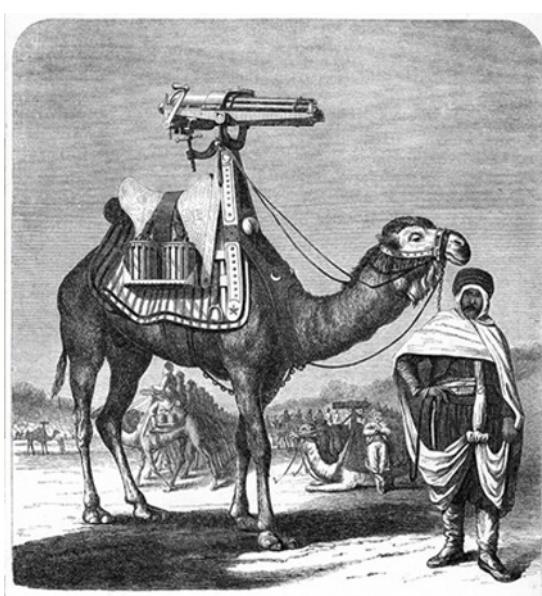
Oct 3, 2019

**dna1ot**

Project of the Month Winner !!! HMEM Supporter

#17

Thanks for the comments guys. I will work on making a video soon. Right now I'm struggling to breathe with a bad chest cold.
Going to need to find a different camera. My phone's camera goes mute after the first bang.



Oct 3, 2019

**adolfgalland**

Member

#18

That is one impressive piece of work. I have had a big fascination in gatling guns from when I was a kid watching westerns on tv. I built this little rascal (6 inches long) probably 15-20 years ago just for fun to sit on a desk. Definitely not as neat or complex as yours and does not shoot. Made completely of brass and on a tripod.

[Attachments](#)



IMG_0287.JPG
108.2 KB Views: 593

dnalot

Oct 4, 2019

#19

P Piper
New Member

Nice job.

Just a few questions.

Did you solder or acraglass the barrel liners?

- what was the reason why you settled on the one you used?

Did you machine the chamber or use a chamber reamer?

I agree that the spring tension on the firing pin is the same as the full scale model. Was there a noticeable or objectionable amount of force required to rotate the shorter crank?

Thanks,
-Piper

Oct 4, 2019

#20



dnalot

Project of the Month Winner !!! HMEM Supporter

I used DOM steel for the barrels as it already has a hole through it of almost the correct size. I then used a ream to clean the hole to the correct size. I used loctite 609 to secure the rifled sleeve into the barrel. I first plugged the sleeve with wax. The fuzzy photo shows a bit of tape that formed a well. After starting the sleeve in the barrel I kept the well full as I inserted the sleeve twisting it as it went in. This insured the sleeve was bonded to the barrel its entire length. Hint, before it cures loctite can be easily cleaned off with vinegar. Solder would work but it would be difficult to know if it supported the sleeve along the entire length and I didn't want to distort the barrels with heat.

Turning the crank is hard when cocking the hammers back, to make things worse more than one spring is in play at once. I used springs supplied by "RG-G the designer". Seating the round is also troublesome, I chambered the barrels a little deep to help relieve the force required. I used a .223 chamber reamer. The weak point of the gun is the gears that drive everything. During construction it is best to work on just one bolt at a time until it runs smooth. The most troublesome part is the extractor, I am still having reliability problems with them. Until I get that sorted out I am only loading the magazine with 10 rounds to avoid trying to load a round into an occupied chamber.

Hope this helps

Mark



1 of 4

Next ►

You must log in or register to reply here.

Share: [f](#) [t](#) [p](#) [t](#) [s](#) [e](#) [d](#)

Latest posts

- M [Grooved wheel](#)
Latest: Master · 12 minutes ago
-  [35cc "V" Twin](#)
Latest: Ghosty · 42 minutes ago
- H [1/3 scale Myrick Eclipse casting kit](#)
Latest: Harvest · Today at 7:28 PM
-  [Les Chenery's Monosoupape](#)
Latest: miss_emma_jade · Today at 7:17 PM
-  [T head engine by Brian](#)
Latest: Brian Rupnow · Today at 6:31 PM
- R [\[For Sale\] Selling my dad's shop - Bridgeport, Linley Jig Borer, Southbend Lathe, Craftsman/Atlas Lathe, Deckel Grinder, Meteor Drill Sharpener](#)
Latest: Rocket Man · Today at 1:44 PM
-  [DoAll Bandsaw for Brian](#)
Latest: Courierdog · Today at 11:18 AM
-  [Ford 300 Inline Six](#)
Latest: ad1cept · Today at 11:06 AM
[Forum > Showcasing them - Engine Showcase - Finished ... >](#)
- P [\[For Sale\] Anzani Plans Free](#)
Latest: DMarkou · Today at 7:50 AM

[Advertise on HomeModelEngineMachinist](#) [Contact us](#) [Terms and rules](#) [Privacy policy](#) [Help](#) [Home](#) [!\[\]\(2020723f97c3fe13d8ecf52b30807736_img.jpg\)](#)

Latest: Richard-Vanderpol · Today at 6:41 AM

Forum software by XenForo® © 2010-2020 XenForo Ltd.

