

1

00:00:00,000 --> 00:00:04,000

On this episode of Mythbusters...

2

00:00:04,000 --> 00:00:06,000

Fire in the hole!

3

00:00:06,000 --> 00:00:07,000

It's Wham!

4

00:00:07,000 --> 00:00:08,000

Bam!

5

00:00:09,000 --> 00:00:11,000

Thank you fans!

6

00:00:12,000 --> 00:00:15,000

It's another Myths Revisited Special.

7

00:00:15,000 --> 00:00:17,000

Oh, tell me what might happen this time!

8

00:00:17,000 --> 00:00:22,000

Where you judge how the Mythbusters have been conducting themselves.

9

00:00:22,000 --> 00:00:27,000

Were Adam and Jamie responsible for a trombone travesty?

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00:00:27,000 --> 00:00:29,000

That's just awesome!

11

00:00:29,000 --> 00:00:32,000

Exploding Hammer's myth strike a low blow.

12

00:00:32,000 --> 00:00:33,000

Low blow!

13

00:00:33,000 --> 00:00:36,000

And we revisit two high caliber Myths.

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00:00:36,000 --> 00:00:39,000

Where you say the guys didn't aim up.

15

00:00:39,000 --> 00:00:40,000

Oh, Jamie!

16

00:00:40,000 --> 00:00:41,000

Now we're talking.

17

00:00:44,000 --> 00:00:46,000

Who are the Mythbusters?

18

00:00:46,000 --> 00:00:47,000

Adam Savage.

19

00:00:47,000 --> 00:00:49,000

Ow, ow, ow, ow, ow, ow.

20

00:00:49,000 --> 00:00:51,000

And Jamie Heinemann.

21

00:00:51,000 --> 00:00:53,000

It's almost too exciting.

22

00:00:54,000 --> 00:00:58,000

Between them more than 30 years of special effects experience.

23

00:00:58,000 --> 00:01:00,000

Cue dramatic music.

24

00:01:00,000 --> 00:01:02,000

Joining them, Carrie Byron.

25

00:01:02,000 --> 00:01:04,000

That's gonna be so cool!

26

00:01:04,000 --> 00:01:05,000

Grant Imahara.

27

00:01:05,000 --> 00:01:07,000

Listen to that baby purr!

28

00:01:07,000 --> 00:01:08,000

And Tori Bellachy.

29

00:01:08,000 --> 00:01:11,000

Charamedics are nowhere to be found.

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00:01:11,000 --> 00:01:13,000

They don't just tell the Myths.

31

00:01:13,000 --> 00:01:16,000

They put them to the test.

32

00:01:24,000 --> 00:01:26,000

Yes, it's that time again.

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00:01:26,000 --> 00:01:30,000

The Mythbusters are going to answer their critics the only way they know how.

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00:01:30,000 --> 00:01:32,000

By going back to the drawing board.

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00:01:32,000 --> 00:01:35,000

Add first on the chopping block,

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00:01:35,000 --> 00:01:39,000

a myth that has long been a trombone of contention with fans.

37

00:01:43,000 --> 00:01:46,000

Yeah, you know we shot Mad Trombonist during season one?

38

00:01:46,000 --> 00:01:50,000

That's the longest distance we've ever had between a myth and its revisit.

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00:01:50,000 --> 00:01:52,000

What the heck did we get wrong?

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00:01:52,000 --> 00:01:54,000

There wasn't a trombonist.

41

00:01:56,000 --> 00:02:02,000

Once upon a time, two fresh-faced fledgling mythbusters blew up some brass.

42

00:02:05,000 --> 00:02:11,000

The Myth, a trombonist wants to put a bit more bang into the 1812 overture.

43

00:02:11,000 --> 00:02:14,000

So he fills his mute with firecrackers.

44

00:02:14,000 --> 00:02:21,000

When they go off, the force of the blast turns the trombone slide into a musical missile,

45

00:02:21,000 --> 00:02:24,000

which strikes the conductor and knocks him into the audience.

46

00:02:27,000 --> 00:02:34,000

But no matter how much black powder Jamie packed into that trombone, the slide wouldn't fly.

47

00:02:36,000 --> 00:02:41,000

When the smoke had cleared and the police had calmed down, Adam was adamant.

48

00:02:41,000 --> 00:02:46,000

We have taken this myth absolutely to pieces. This is another rarity for us.

49

00:02:46,000 --> 00:02:49,000

Every aspect of it is completely impossible.

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00:02:49,000 --> 00:02:56,000

Zach left fans feeling brassed off, and they've been demanding an encore performance ever since.

51

00:02:56,000 --> 00:03:02,000

Only this time, they want to see a pair of lips pressed against the trombone's mouthpiece.

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00:03:05,000 --> 00:03:08,000

So how would a trombonist have made a difference?

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00:03:08,000 --> 00:03:13,000

The idea is that the trombonist's lips would seal the trombone more effectively,

54

00:03:13,000 --> 00:03:18,000

hence making the explosive propel the slide off the end of the trombone like a rocket.

55

00:03:18,000 --> 00:03:21,000

Okay, that's good enough. You know, if we're going to do this, though,

56

00:03:21,000 --> 00:03:24,000

I think we should make sure we can put it way to bed.

57

00:03:24,000 --> 00:03:29,000

Let's put a pair of lips behind the mouthpiece, but if that doesn't work, let's make a mouthpiece that we well shut.

58

00:03:29,000 --> 00:03:30,000

Sure.

59

00:03:30,000 --> 00:03:37,000

Okay, so according to you guys, having someone's mouth pressed against the trombone will make it a sealed system.

60

00:03:37,000 --> 00:03:42,000

Expanding gases from the explosion will no longer be able to escape through the mouthpiece.

61

00:03:42,000 --> 00:03:46,000

They'll have nowhere to go, but through that slide.

62

00:03:47,000 --> 00:03:52,000

Right, you ask for it. Adam and Janey are going to take it again from the top.

63

00:03:52,000 --> 00:03:54,000

Look at all those trumpets.

64

00:03:54,000 --> 00:03:55,000

Did you play the trumpet?

65

00:03:55,000 --> 00:03:56,000

No.

66

00:03:56,000 --> 00:03:59,000

Aren't you a bugler in the Civil War?

67

00:03:59,000 --> 00:04:02,000

Once again, the guys go trolling for trombones.

68

00:04:02,000 --> 00:04:04,000

Second hand, of course.

69

00:04:04,000 --> 00:04:05,000

Perfect.

70

00:04:05,000 --> 00:04:07,000

They also need some mouthpieces.

71

00:04:07,000 --> 00:04:10,000

And some mutes.

72

00:04:10,000 --> 00:04:14,000

Unfortunately, this is the last note this trombone will ever play.

73

00:04:15,000 --> 00:04:21,000

Trust Adam to turn a trombone into an instrument of torture.

74

00:04:21,000 --> 00:04:27,000

Question is, will they still be able to blow their own trumpet when this revisits done?

75

00:04:35,000 --> 00:04:36,000

Finger in a barrel.

76

00:04:36,000 --> 00:04:38,000

I knew we were going to have to revisit this one.

77

00:04:38,000 --> 00:04:43,000

That's the one where a gun barrel can explode into a banana peel just like in the cartoons.

78

00:04:44,000 --> 00:04:49,000

This one's well worth a revisit, if only so we can catch up with our friends, the Mythtoons.

79

00:04:49,000 --> 00:04:52,000

They're a gun barrel of laughs.

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00:04:53,000 --> 00:04:59,000

When our familiar foes come face to face, there's plenty of animated animosity.

81

00:05:01,000 --> 00:05:07,000

But instead of saying his prayers, our cheeky red-haired rodent forces his finger into the barrel.

82

00:05:07,000 --> 00:05:11,000

And the hunter's best laid plans backfire big time.

83

00:05:13,000 --> 00:05:16,000

The Mythbusters tried to get the same result in real life.

84

00:05:16,000 --> 00:05:21,000

They took modern rifles and plugged ballistics gel fingers into the barrels.

85

00:05:23,000 --> 00:05:26,000

The bullets won, hands down.

86

00:05:26,000 --> 00:05:27,000

All re-darned.

87

00:05:27,000 --> 00:05:34,000

And while they got one or two bulges in their barrels, nothing could trigger that famous cartoon banana peel.

88

00:05:35,000 --> 00:05:39,000

I don't want to count our chickens before they hatch, but I think we may end up revisiting this one.

89

00:05:39,000 --> 00:05:44,000

Well Adam, those chickens have now hatched and they're coming home to roost.

90

00:05:44,000 --> 00:05:49,000

Since busting the myth, fans have been firing a volley of suggestions.

91

00:05:51,000 --> 00:05:54,000

First we should try this. It's an older gun with a Damascus barrel.

92

00:05:54,000 --> 00:05:55,000

And what is that?

93

00:05:55,000 --> 00:06:01,000

Well up until the 20th century, they were making Damascus barrels and that's where they would take alternate strips of steel and iron,

94

00:06:01,000 --> 00:06:05,000

twist it around a rod and then weld it together. So it wasn't one piece of metal.

95

00:06:05,000 --> 00:06:13,000

Okay, so let's get that straight. A Damascus barrel was made by taking strips of iron and steel and welding them together.

96

00:06:13,000 --> 00:06:22,000

According to fans, those weld points weaken the structure and if the barrel is blocked, they'll give us our cartoon peel back.

97

00:06:22,000 --> 00:06:25,000

Well it looks like I need to go dig out the hand molds we used last time.

98

00:06:25,000 --> 00:06:31,000

And I'll work on a remote trigger because if this does indeed work, it could very well explode.

99

00:06:32,000 --> 00:06:38,000

While the guys get to work, let's revisit the science behind this cartoon caper.

100

00:06:38,000 --> 00:06:41,000

Pull the trigger of a gun and there's a small explosion.

101

00:06:42,000 --> 00:06:46,000

The expanding gasses propel the bullet through and out the barrel.

102

00:06:46,000 --> 00:06:50,000

Block the barrel however and the gas has nowhere to escape.

103

00:06:50,000 --> 00:06:53,000

The pressure builds and gun ruptures.

104

00:06:54,000 --> 00:07:00,000

Some fans might rupture too when they see what the mythmusters are going to do with this collector's item.

105

00:07:00,000 --> 00:07:03,000

Boy, you better marry my daughter.

106

00:07:04,000 --> 00:07:08,000

This ten-gauge shotgun had both barrels fashioned Damascus style.

107

00:07:08,000 --> 00:07:15,000

This one was made in 1877, so it's an antique and we're going to destroy it.

108

00:07:16,000 --> 00:07:21,000

Grant mounts the shotgun on Jamie's special rifle rig and wires up a remote trigger.

109

00:07:21,000 --> 00:07:26,000

We have a radio control system that transmits a wireless signal to the receiver.

110

00:07:26,000 --> 00:07:30,000

The receiver sends a control signal to the servo.

111

00:07:30,000 --> 00:07:34,000

It's going to turn the head of the servo which pulls a string.

112

00:07:34,000 --> 00:07:39,000

The string goes around the trigger and is captured on the other side by a hose clamp.

113

00:07:39,000 --> 00:07:41,000

And then that fires the gun.

114

00:07:41,000 --> 00:07:44,000

Three, two, one.

115

00:07:46,000 --> 00:07:47,000

There you go.

116

00:07:48,000 --> 00:07:52,000

Meanwhile, you gotta head it to Carrie. She's got hand-making down pat.

117

00:07:52,000 --> 00:07:59,000

So here we have a ballistic gel hand with a skeleton cast inside.

118

00:07:59,000 --> 00:08:05,000

It's been sitting up overnight and the nervous part is over because it came out of the mold and looks alright.

119

00:08:06,000 --> 00:08:14,000

Out in the mythmusters' purpose-built bunker, the rifle rig is screwed down and Carrie fits the finger into the Damascus barrel.

120

00:08:15,000 --> 00:08:21,000

Another thing that I read off the message board was people were complaining that we didn't have a skin layer on the outside.

121

00:08:21,000 --> 00:08:24,000

On the outside of our ballistics gel.

122

00:08:24,000 --> 00:08:31,000

So I've been recommended to use a finger from a glove to create a skin layer which will make an extra seal.

123

00:08:31,000 --> 00:08:43,000

Here we go. One skin layer, an extra bit of authenticity and at least one audience member, if not many, much more satisfied with our result.

124

00:08:43,000 --> 00:08:44,000

Hey Al.

125

00:08:44,000 --> 00:08:48,000

Overseen the experiment firearm specialist Sergeant Alan Normandy.

126

00:08:48,000 --> 00:08:52,000

He always rides shotgun when the guys go bustin' gun myths.

127

00:08:52,000 --> 00:08:55,000

So we have the shotgun set up. What kind of ammo are we using today?

128

00:08:55,000 --> 00:09:03,000

Well today we're gonna go with maximum power. So we're going with a 3.5 inch magnum 10 gauge rifled

slug.

129

00:09:03,000 --> 00:09:05,000

It's a big bullet.

130

00:09:05,000 --> 00:09:07,000

It's a big shell.

131

00:09:08,000 --> 00:09:12,000

It's the first round this museum piece has seen in quite a while.

132

00:09:12,000 --> 00:09:16,000

This shotgun is absolutely unsafe with modern ammunition.

133

00:09:18,000 --> 00:09:19,000

Fantastic!

134

00:09:20,000 --> 00:09:21,000

Perfect!

135

00:09:21,000 --> 00:09:22,000

Fantastic!

136

00:09:22,000 --> 00:09:23,000

Alright.

137

00:09:25,000 --> 00:09:26,000

Oh!

138

00:09:26,000 --> 00:09:27,000

Wow!

139

00:09:27,000 --> 00:09:28,000

Hey, we got something.

140

00:09:32,000 --> 00:09:33,000

The hand's gone.

141

00:09:33,000 --> 00:09:35,000

Dang, I think the gun's ruined.

142

00:09:35,000 --> 00:09:38,000

That's pretty good. It's better than what we got last time.

143

00:09:39,000 --> 00:09:42,000

First time round all they got was a little barrel bolt.

144

00:09:44,000 --> 00:09:48,000

This time the Damascus barrels torn open and peeled back like cardboard.

145

00:09:49,000 --> 00:09:53,000

That's a better result, but it's still not the full banana.

146

00:09:54,000 --> 00:09:59,000

And unlike the cartoons, the guy who pulled the trigger still has a face.

147

00:09:59,000 --> 00:10:01,000

Our shooter doesn't look harmed at all.

148

00:10:01,000 --> 00:10:05,000

But the guy with the finger, little worse for wear when you say.

149

00:10:05,000 --> 00:10:06,000

And that's a good.

150

00:10:06,000 --> 00:10:11,000

It's obvious a flesh and bone finger isn't strong enough to cause a barrel to explode.

151

00:10:11,000 --> 00:10:17,000

So, Tari wants to take a slight detour on the road to Damascus barrel busting.

152

00:10:18,000 --> 00:10:22,000

I found this piece of steel. It fits perfectly in the barrel.

153

00:10:23,000 --> 00:10:24,000

Like so.

154

00:10:24,000 --> 00:10:26,000

I'm just going to cut off a little piece.

155

00:10:26,000 --> 00:10:28,000

And then I'm going to sculpt it to look like a finger.

156

00:10:28,000 --> 00:10:30,000

Just because I can.

157

00:10:31,000 --> 00:10:37,000

Being the model, model maker that he is, Tari is pretty handy at making a finger.

158

00:10:38,000 --> 00:10:40,000

And there's my steel finger.

159

00:10:41,000 --> 00:10:45,000

At Tari, that needs to go into another orifice. Thank you.

160

00:10:45,000 --> 00:10:49,000

I'm going to weld in the steel finger that I made into the good barrel.

161

00:10:49,000 --> 00:10:53,000

This way we're sure that it's not going to pop out when we take a shot.

162

00:10:53,000 --> 00:10:57,000

The barrel is now well and truly blocked.

163

00:10:57,000 --> 00:11:03,000

Back in the bunker, the shotgun is remounted and Kari loads another shell.

164

00:11:05,000 --> 00:11:06,000

Okay, we're hot.

165

00:11:07,000 --> 00:11:10,000

We're set for a cartoon catastrophe.

166

00:11:10,000 --> 00:11:11,000

Fire in the hole.

167

00:11:11,000 --> 00:11:14,000

Three, two, one.

168

00:11:14,000 --> 00:11:16,000

Fire in the hole.

169

00:11:16,000 --> 00:11:18,000

Three, two, one.

170

00:11:24,000 --> 00:11:27,000

The shotgun suddenly becomes a sawn off.

171

00:11:27,000 --> 00:11:31,000

That's not a banana peel. That's like loss of tip.

172

00:11:31,000 --> 00:11:33,000

That's just total shattered the end off.

173

00:11:33,000 --> 00:11:35,000

But where's the finger?

174

00:11:35,000 --> 00:11:37,000

The end is gone.

175

00:11:37,000 --> 00:11:38,000

We've wrecked the gun.

176

00:11:38,000 --> 00:11:39,000

Steel finger.

177

00:11:40,000 --> 00:11:41,000

Gone.

178

00:11:41,000 --> 00:11:42,000

Gone.

179

00:11:42,000 --> 00:11:43,000

We'll find the finger later.

180

00:11:43,000 --> 00:11:49,000

Our Pursuit Hunter has suffered no ill effects, but the Damascus is done for.

181

00:11:49,000 --> 00:11:54,000

So in our second test with the steel plug welded into the Damascus barrel,

182

00:11:54,000 --> 00:11:56,000

we didn't get any banana peeling effect.

183

00:11:56,000 --> 00:12:02,000

Now this piece may look like it's a banana peel, but it's not actually a part of the barrel.

184

00:12:02,000 --> 00:12:07,000

This is just a detailed piece that goes between the two barrels of this double barrel shotgun.

185

00:12:08,000 --> 00:12:12,000

Once again, the finger myth gets the thumbs down.

186

00:12:16,000 --> 00:12:18,000

I'm banging the bang in the bang in the...

187

00:12:18,000 --> 00:12:23,000

Still to come on Myth 3 Visited, the guys become blacksmith busters

188

00:12:23,000 --> 00:12:26,000

as the hammer falls on a tall tool tail.

189

00:12:26,000 --> 00:12:30,000

And up next, the day the music died.

190

00:12:30,000 --> 00:12:33,000

Can a trombone turn rocket launcher?

191

00:12:38,000 --> 00:12:44,000

It's a musical mishap that could have come straight from the golden age of slapstick.

192

00:12:46,000 --> 00:12:52,000

Can a mute full of fireworks turn a trombone slide into a musical missile?

193

00:12:52,000 --> 00:12:58,000

For this raucous recital, Adam and Jamie are off to the Alameda County bomb range.

194

00:12:58,000 --> 00:12:59,000

Look at this.

195

00:12:59,000 --> 00:13:01,000

Isn't this so myth busters?

196

00:13:01,000 --> 00:13:05,000

Jamie's truck flanked by the bomb squad and the paramedics.

197

00:13:07,000 --> 00:13:12,000

Just like last time, Buster the conductor will have to face the music.

198

00:13:12,000 --> 00:13:15,000

He'll be propped up on a simple metal frame.

199

00:13:15,000 --> 00:13:19,000

Should he be buffeted by flying brass, he'll topple backwards.

200

00:13:19,000 --> 00:13:23,000

Now he just has to dress for the occasion.

201

00:13:23,000 --> 00:13:26,000

Hey Buster, that suits a nice... cut.

202

00:13:26,000 --> 00:13:28,000

But it's too big.

203

00:13:28,000 --> 00:13:32,000

Last time they tried this, the trombone was on its own.

204

00:13:32,000 --> 00:13:37,000

This time, crucially, they've got a bust of Grant puckering up behind the mouthpiece.

205

00:13:37,000 --> 00:13:39,000

This is ballistic material.

206

00:13:39,000 --> 00:13:43,000

It's got the same consistency as human flesh, human muscle tissue.

207

00:13:43,000 --> 00:13:45,000

That's behind this mouthpiece he has snubbed there.

208

00:13:45,000 --> 00:13:49,000

That is a committed trombonist behind this mouthpiece.

209

00:13:49,000 --> 00:13:56,000

To make sure that the slide can launch smoothly, Jamie takes out his handy tube of lube and goes to work.

210

00:13:56,000 --> 00:14:01,000

And we suddenly find out yet another startling fact about his past.

211

00:14:01,000 --> 00:14:08,000

The only time I had any kind of band instrument experience was I got a hold of an old tuba.

212

00:14:08,000 --> 00:14:13,000

So I mounted it in the bathroom when I was a teenager and you could sit on the toilet

213

00:14:13,000 --> 00:14:16,000

and everybody in the house knew what was going on.

214

00:14:19,000 --> 00:14:20,000

That's unique.

215

00:14:20,000 --> 00:14:22,000

Hold it, hold it, hold it.

216

00:14:22,000 --> 00:14:27,000

At this point, there are so many one-liners, my brain's about to explode.

217

00:14:27,000 --> 00:14:29,000

Stop it, stop it, stop it, stop it.

218

00:14:29,000 --> 00:14:32,000

Movements, bum notes, crotchets and wind.

219

00:14:32,000 --> 00:14:34,000

Oh no!

220

00:14:34,000 --> 00:14:37,000

Okay, better now.

221

00:14:37,000 --> 00:14:43,000

While we try to wipe from our minds the image of the Heinemann's sister in symphony, let's take stock.

222

00:14:43,000 --> 00:14:46,000

Here is a disgruntled or very ambitious trombone player.

223

00:14:46,000 --> 00:14:51,000

He's decided during the 1812 overture to fill his mute with explosives for the finale.

224

00:14:51,000 --> 00:14:56,000

He fills them with explosives, they blow up, they send his slide, shooting all the way towards the conductor.

225

00:14:56,000 --> 00:14:59,000

Boom! Who falls backwards and into the audience.

226

00:14:59,000 --> 00:15:00,000

That's the myth.

227

00:15:00,000 --> 00:15:07,000

With the bomb squad supervising, the mute is packed with black powder and loaded into the trombone bell.

228

00:15:07,000 --> 00:15:11,000

Places, please everybody, we're ready to strike up the bell.

229

00:15:11,000 --> 00:15:12,000

It's good to go.

230

00:15:12,000 --> 00:15:15,000

This is Mad Trombonist.

231

00:15:15,000 --> 00:15:22,000

Lips behind the mouthpiece, revisit in five, four, three, two, one.

232

00:15:27,000 --> 00:15:30,000

I can see the slide moved a little bit.

233

00:15:30,000 --> 00:15:31,000

Just a little.

234

00:15:31,000 --> 00:15:35,000

I'm having the most shocking sense of deja vu.

235

00:15:35,000 --> 00:15:43,000

The high speed shows the mute flying from the trombone like shiny shrapnel and bouncing off Buster's cranium.

236

00:15:43,000 --> 00:15:45,000

But he remains unmoved.

237

00:15:45,000 --> 00:15:51,000

And as for the trombone slide, well it's still firmly attached to the instrument.

238

00:15:51,000 --> 00:15:57,000

The trombonist lips don't seem worse for wear, but I don't think they made much of a difference.

239

00:15:57,000 --> 00:16:04,000

In the name of due diligence and because they love blowing stuff up, the guys reset for a reprise.

240

00:16:04,000 --> 00:16:08,000

This time, Jamie doubles the amount of black powder.

241

00:16:08,000 --> 00:16:09,000

That's perfect.

242

00:16:09,000 --> 00:16:12,000

This mute is going to be anything but.

243

00:16:12,000 --> 00:16:16,000

In five, four, three, two, one.

244

00:16:22,000 --> 00:16:24,000

The music's on fire.

245

00:16:24,000 --> 00:16:25,000

Now that's a finale.

246

00:16:25,000 --> 00:16:33,000

In the aftermath of the second bomb trombone, it seems the mythbusters might have settled an old score with the fans.

247

00:16:33,000 --> 00:16:39,000

Again, just like the last one, we can see the shockwave in the bell and the slide didn't come off.

248

00:16:39,000 --> 00:16:44,000

That's about the only thing that didn't suffer with this one is the slide.

249

00:16:44,000 --> 00:16:47,000

It didn't even knock the baton from his hand.

250

00:16:47,000 --> 00:16:49,000

Which is barely hanging there.

251

00:16:52,000 --> 00:16:59,000

This musical myth is looking more busted than Pete Townsend's guitar.

252

00:16:59,000 --> 00:17:00,000

Or is it?

253

00:17:00,000 --> 00:17:07,000

I think there's one last thing we could do to put this to bed once and for all, and that would be to take our second backup trombone

254

00:17:07,000 --> 00:17:13,000

and solder or weld the mouthpiece so that no air can escape from it.

255

00:17:13,000 --> 00:17:14,000

Okay.

256

00:17:14,000 --> 00:17:19,000

Not just count on the lips, but make a complete blockage there and see if that works.

257

00:17:20,000 --> 00:17:22,000

If you say so.

258

00:17:23,000 --> 00:17:26,000

Try and have some enthusiasm, Jamie.

259

00:17:30,000 --> 00:17:33,000

Don't believe the cartoon's friends.

260

00:17:33,000 --> 00:17:37,000

Shove your finger in the barrel of a gun won't make the gun explode.

261

00:17:37,000 --> 00:17:40,000

Your hand, however, will.

262

00:17:42,000 --> 00:17:44,000

The guy with the finger.

263

00:17:44,000 --> 00:17:46,000

Little worse for wear, wouldn't you say?

264

00:17:46,000 --> 00:17:47,000

Not so good.

265

00:17:48,000 --> 00:17:50,000

But that's not all folks.

266

00:17:50,000 --> 00:17:57,000

Having busted the myth a second time, the mythbusters now want to find out what will make a barrel bend back like a banana peel.

267

00:17:57,000 --> 00:17:59,000

That's like loss of tip.

268

00:17:59,000 --> 00:18:02,000

And the fans have a sure fire suggestion.

269

00:18:03,000 --> 00:18:08,000

So next test is somebody was shooting a 30-odd 6 with a borsh cider still in the barrel.

270

00:18:08,000 --> 00:18:11,000

And that thing ripped shreds.

271

00:18:11,000 --> 00:18:13,000

I'm extremely familiar with the pictures of that.

272

00:18:13,000 --> 00:18:18,000

I have had so many emails sent to my inbox going, look, banana peel.

273

00:18:18,000 --> 00:18:21,000

We got the same exact gun that that happened with.

274

00:18:21,000 --> 00:18:23,000

So we're going to set that up and try it the same way.

275

00:18:23,000 --> 00:18:25,000

I really want to find out if that's real.

276

00:18:25,000 --> 00:18:29,000

Do these photos show a real deal peel?

277

00:18:29,000 --> 00:18:31,000

Are they smoking gun evidence?

278

00:18:32,000 --> 00:18:35,000

The mythbusters have their sights set on finding out.

279

00:18:36,000 --> 00:18:39,000

With the borsh cider, you put it in, you turn on the laser.

280

00:18:39,000 --> 00:18:42,000

And where the laser goes, that's where the bullet should go.

281

00:18:42,000 --> 00:18:46,000

Then you get your scope and you put your crosshairs on that laser point.

282

00:18:47,000 --> 00:18:51,000

Of course, you're supposed to take the borsh cider out of the barrel before pulling the trigger.

283

00:18:51,000 --> 00:18:55,000

Something our unfortunate marksman apparently forgot to do.

284

00:18:56,000 --> 00:19:00,000

Sergeant Normandy's got a theory as to how this scenario might work.

285

00:19:00,000 --> 00:19:04,000

Perhaps the little rubber gaskets on the borsh cider create such an adequate seal

286

00:19:04,000 --> 00:19:10,000

on what is a fairly small diameter for the bullet that it creates so much pressure in the barrel that it blows it up.

287

00:19:10,000 --> 00:19:13,000

Containment, combustion, explosion.

288

00:19:13,000 --> 00:19:14,000

Exactly.

289

00:19:14,000 --> 00:19:16,000

Okay, then let's see.

290

00:19:16,000 --> 00:19:18,000

Okay, we are loaded.

291

00:19:18,000 --> 00:19:24,000

They've got a brand new .30-odd 6 hunting rifle with a borsh cider stuck in the barrel.

292

00:19:24,000 --> 00:19:27,000

Three, two, one.

293

00:19:29,000 --> 00:19:31,000

Oh, what the heck?

294

00:19:31,000 --> 00:19:40,000

I think the borsh cider bounced off the bullet catcher and hit the light.

295

00:19:40,000 --> 00:19:43,000

Oh, wait a minute. We got a split.

296

00:19:43,000 --> 00:19:44,000

Did we?

297

00:19:44,000 --> 00:19:47,000

Yeah, split the barrel. Wow.

298

00:19:47,000 --> 00:19:49,000

That's about a three-inch split.

299

00:19:49,000 --> 00:19:51,000

The barrel separated from the stock.

300

00:19:51,000 --> 00:19:56,000

The borsh cider's in bits, but still no banana peel.

301

00:19:56,000 --> 00:19:58,000

I'm feeling like it is possible.

302

00:19:58,000 --> 00:20:04,000

I mean, we have never gotten any kind of damage like this before where it's actually splitting down the length of the barrel.

303

00:20:04,000 --> 00:20:09,000

Think about it. This has got to be a one in a million shot to create that banana peel effect.

304

00:20:09,000 --> 00:20:13,000

We've got a crack up the barrel. We've got the stock separated.

305

00:20:13,000 --> 00:20:19,000

I mean, under the perfect circumstances, that photo could be that one in a million shot.

306

00:20:19,000 --> 00:20:24,000

Also, we don't know what the age of the gun was, what kind of abuse it might have gone through.

307

00:20:24,000 --> 00:20:26,000

This is a brand new gun.

308

00:20:26,000 --> 00:20:32,000

That's a totally valid point. It's like he could have had that gun for years and it was already stressed.

309

00:20:32,000 --> 00:20:33,000

That's a great point.

310

00:20:33,000 --> 00:20:35,000

Alright, so I guess we call this one plausible.

311

00:20:35,000 --> 00:20:36,000

Plausible.

312

00:20:36,000 --> 00:20:37,000

I agree.

313

00:20:45,000 --> 00:20:50,000

From one firearm myth to another that made fans few.

314

00:20:50,000 --> 00:20:52,000

Sniper scope revisit?

315

00:20:52,000 --> 00:21:00,000

Yeah, I am very pleased that we found some things to retest in this one because personally, I don't really enjoy making snipers angry.

316

00:21:00,000 --> 00:21:02,000

Is that why you're wearing this thing?

317

00:21:02,000 --> 00:21:04,000

Yes, it is.

318

00:21:04,000 --> 00:21:07,000

So what exactly did we get wrong in the first try?

319

00:21:07,000 --> 00:21:13,000

Well, according to some viewers, we used the wrong rifle and or the wrong scope.

320

00:21:13,000 --> 00:21:14,000

Oh, is that all?

321

00:21:15,000 --> 00:21:18,000

This myth goes back to Vietnam.

322

00:21:18,000 --> 00:21:27,000

The story goes that US Marine sniper Carlos Hathcock took out his VC counterpart with a single shot straight down the scope.

323

00:21:30,000 --> 00:21:37,000

But when Adam and Jamie scored direct hits on scope after scope, the bullets never made it all the way through.

324

00:21:37,000 --> 00:21:39,000

Leading Adam to conclude,

325

00:21:39,000 --> 00:21:44,000

we don't have the scope that Gunny Hathcock shot at so we can't know for sure.

326

00:21:44,000 --> 00:21:47,000

I say we have to call this myth busted.

327

00:21:53,000 --> 00:21:54,000

So what was wrong with the scope?

328

00:21:54,000 --> 00:22:04,000

Well, fans say that we were not using a period scope, which apparently has a lot fewer glass elements than a modern scope and thus, my extension should be easier to get through with the bullet.

329

00:22:04,000 --> 00:22:06,000

Okay, what about the ammo?

330

00:22:06,000 --> 00:22:15,000

Well, it turns out that the modern ammo we used, while very accurate, is designed much more efficiently to kill than the period ammo, which means it breaks up much faster.

331

00:22:15,000 --> 00:22:20,000

We got a letter saying the period ammo would have made it through more glass than modern ammo.

332

00:22:20,000 --> 00:22:21,000

Is it harder to pull it?

333

00:22:21,000 --> 00:22:22,000

Yes.

334

00:22:22,000 --> 00:22:26,000

Okay, let's see how the myth busters aim up this time.

335

00:22:26,000 --> 00:22:28,000

That's it there like that?

336

00:22:28,000 --> 00:22:35,000

Fresh from helping out with finger in a barrel, Sergeant Alan Normandy will once again be calling the shots.

337

00:22:35,000 --> 00:22:42,000

According to photographic evidence, this is the exact same model of rifle that Gunnery Sergeant Hathcock would have been firing against.

338

00:22:42,000 --> 00:22:45,000

Exact same rifle, exact same mount, exact same scope.

339

00:22:45,000 --> 00:22:49,000

This is not a replica rifle, this is an actual period gun.

340

00:22:49,000 --> 00:22:53,000

It looks like there's some Russian writing on here, if you want to see if you can translate.

341

00:22:53,000 --> 00:22:56,000

There's Russian writing on the rifle.

342

00:22:56,000 --> 00:22:58,000

Lucky Jamie studied Russian literature.

343

00:22:58,000 --> 00:23:12,000

If you have a Soryuginia Zavori SSSR tool via 1928, so it means that it was made in 1928 and it was the first issue of the factor, I believe.

344

00:23:12,000 --> 00:23:16,000

Alan's also scoped out a bunch of period correct scopes.

345

00:23:16,000 --> 00:23:21,000

Put next to their modern counterparts, you can see that size does matter.

346

00:23:21,000 --> 00:23:23,000

You can see that there's a size difference.

347

00:23:23,000 --> 00:23:26,000

There's not much of a difference in functionality.

348

00:23:26,000 --> 00:23:30,000

There's between six and eight elements in each of these scopes.

349

00:23:30,000 --> 00:23:36,000

The light is moving similarly through them, but the lenses in this one are much bigger, which means they're much fatter.

350

00:23:36,000 --> 00:23:39,000

There's a lot more glass for the bullet to get through.

351

00:23:39,000 --> 00:23:42,000

There's a lot less glass for the bullet to get through in this scope.

352

00:23:42,000 --> 00:23:50,000

Last time, the bullets were hitting the modern scope dead on, but were deflected by the heavy-duty lenses inside.

353

00:23:50,000 --> 00:23:53,000

That shouldn't be a problem with this scope.

354

00:23:53,000 --> 00:23:57,000

If we can't fire through this scope, this myth is busted.

355

00:23:57,000 --> 00:24:02,000

Grant's ballistic bust is on another tour of duty, this time as the sniper.

356

00:24:02,000 --> 00:24:10,000

His rifle and scope setup is authentic, exactly what Sergeant Hathcock's enemy target would have been using.

357

00:24:10,000 --> 00:24:20,000

For this test, we're going to use this .30-odd 6 rifle with an original 1968 vintage M72-173 grain round.

358

00:24:20,000 --> 00:24:25,000

This is the actual type of round that Gunny Hathcock would have used in his rifle.

359

00:24:25,000 --> 00:24:32,000

.30-odd 6, 173 grain. This is a solid, full metal jacket round.

360

00:24:32,000 --> 00:24:44,000

We've seen what these .30-odd 6 bullets do several times in the past, and we know that, for example, this bullet right here will go through two thicknesses of the ballistic glass that we use to protect ourselves here.

361

00:24:44,000 --> 00:24:46,000

These really are powerful bullets.

362

00:24:46,000 --> 00:24:50,000

Jamie prepares to replicate Sergeant Hathcock's killer shot.

363

00:24:50,000 --> 00:24:53,000

Deep breath, but it surprised you.

364

00:24:55,000 --> 00:24:57,000

Dude! Oh, man.

365

00:24:57,000 --> 00:24:58,000

How'd I do?

366

00:24:58,000 --> 00:25:02,000

Well, we obliterated the scope mount for one. That's what I can see from here.

367

00:25:02,000 --> 00:25:06,000

I think we wasted a little energy on some of the metal.

368

00:25:07,000 --> 00:25:17,000

Jamie was just off target. The bullet didn't make it through the scope. Instead, it smashed the casing.

369

00:25:17,000 --> 00:25:26,000

Our sniper's still at clear and present danger. It looks like the old scope isn't as easy to penetrate as first thought.

370

00:25:26,000 --> 00:25:32,000

It may seem like the period scope has less glass to penetrate, and it probably does, but here's the catch.

371

00:25:32,000 --> 00:25:40,000

The period scope has a metal ring that's actually quite thick that the bullet has to push all that glass through to get to the other side.

372

00:25:40,000 --> 00:25:42,000

It's a little more difficult than it might seem.

373

00:25:42,000 --> 00:25:45,000

Adam's solution is typically straightforward.

374

00:25:45,000 --> 00:25:52,000

I don't know. I'm starting to think that we should just place this thing at point blank for the highest percentage of just seeing what the bullet will do.

375

00:25:52,000 --> 00:25:53,000

I'm all for it.

376

00:25:53,000 --> 00:25:59,000

But Jamie doesn't agree. He thinks Adam's taking a pot shot at his aiming ability.

377

00:25:59,000 --> 00:26:04,000

And soon our science-loving snipers are sniping at each other.

378

00:26:04,000 --> 00:26:12,000

I was pretty centered. I just need to move it up a little bit. I don't like to change variables every time we redo a test here.

379

00:26:12,000 --> 00:26:15,000

Well, I wasn't trying to change variables. I was trying to eliminate them.

380

00:26:15,000 --> 00:26:17,000

By moving the desk closer, we're kind of like having...

381

00:26:17,000 --> 00:26:23,000

By moving it all the way up to the barrel is kissing the thing. That's just removing the variable of aim.

382

00:26:23,000 --> 00:26:26,000

If you want to keep working with a variable of aim, I'm happy to.

383

00:26:26,000 --> 00:26:27,000

Okay.

384

00:26:28,000 --> 00:26:30,000

Jamie sets for a second shot.

385

00:26:30,000 --> 00:26:32,000

Making ready for live fire.

386

00:26:33,000 --> 00:26:35,000

He adjusts his aim just a fraction.

387

00:26:37,000 --> 00:26:41,000

And another 30-odd, 6-ram thunders into the sniper scope.

388

00:26:42,000 --> 00:26:43,000

That looked like a good shot.

389

00:26:44,000 --> 00:26:46,000

Well, the glass is all obliterated.

390

00:26:46,000 --> 00:26:48,000

That's one good sign.

391

00:26:48,000 --> 00:26:50,000

Adam admits admiration.

392

00:26:51,000 --> 00:26:55,000

Well, that was a good shot, Jamie. That made it all the way through.

393

00:26:56,000 --> 00:26:59,000

The question is, is that our bullet?

394

00:26:59,000 --> 00:27:00,000

It sure looks like it to me.

395

00:27:00,000 --> 00:27:01,000

Really?

396

00:27:01,000 --> 00:27:03,000

Oh, yeah, there's the copper.

397

00:27:03,000 --> 00:27:06,000

It melted some of the glass with some of the heat exchange.

398

00:27:06,000 --> 00:27:07,000

That's definitely copper.

399

00:27:09,000 --> 00:27:15,000

The bullet blasted straight through the scope, but somehow stopped before sniper grads BDI.

400

00:27:16,000 --> 00:27:21,000

The bullet made it all the way through in obliterated glass, but it still was just sitting right there.

401

00:27:21,000 --> 00:27:26,000

Yep, our little guy here is not happy at all, but he's not dead.

402

00:27:26,000 --> 00:27:34,000

The period scope, plus the period rifle and the period ammo all made significant differences, but I still want to call this one Buster.

403

00:27:34,000 --> 00:27:35,000

What do you think, AI?

404

00:27:35,000 --> 00:27:39,000

I'm not ready to call it over just yet. I got one little trick up my sleeve.

405

00:27:39,000 --> 00:27:43,000

USGI 30-odd, 6 armor piercing ammunition.

406

00:27:43,000 --> 00:27:44,000

Let's do it.

407

00:27:45,000 --> 00:27:50,000

Stay with us as the Mad Trump bonus myth reaches its brass crushing crescendo.

408

00:27:52,000 --> 00:27:56,000

And next, the guys tool up to hammer a blacksmith myth.

409

00:28:07,000 --> 00:28:11,000

Now the next myth ripe for revisiting is one I don't quite remember.

410

00:28:12,000 --> 00:28:14,000

Can a hammerhead really explode?

411

00:28:17,000 --> 00:28:19,000

Oh, that type of hammerhead.

412

00:28:19,000 --> 00:28:20,000

Got it.

413

00:28:20,000 --> 00:28:21,000

Sorry.

414

00:28:29,000 --> 00:28:35,000

You know what? It's always the little ones. You think you've tested them thoroughly, but the fans, they still complain about it.

415

00:28:35,000 --> 00:28:36,000

It's exploding hammer.

416

00:28:36,000 --> 00:28:38,000

Well, you know, I really thought we nailed that one.

417

00:28:41,000 --> 00:28:44,000

I think we did too, but the people disagree.

418

00:28:44,000 --> 00:28:45,000

Why?

419

00:28:45,000 --> 00:28:47,000

Why don't we let the narrator explain?

420

00:28:47,000 --> 00:28:49,000

Oh, okay then.

421

00:28:49,000 --> 00:28:54,000

Well, see, it all started when Jamie innocently used one hammer to bang another.

422

00:28:54,000 --> 00:29:00,000

Don't do that, fans exclaimed. A hammer can explode. It's struck by another hammer.

423

00:29:00,000 --> 00:29:08,000

Well, of course, that sparked a frenzy of flailing tools as the mythbusters tried to blow a hammer sky high without success.

424

00:29:09,000 --> 00:29:11,000

Looks like the handle's bent, but no shattering.

425

00:29:12,000 --> 00:29:16,000

But according to fans, they got one or two things wrong.

426

00:29:16,000 --> 00:29:20,000

For a start, the modern hammers they tested were too soft.

427

00:29:20,000 --> 00:29:26,000

And when they fired up the homemade forge to try and harden a hammer, they didn't get the temperature right.

428

00:29:26,000 --> 00:29:28,000

Nag, nag, nag.

429

00:29:28,000 --> 00:29:32,000

And to top it all off, the anvil they used wasn't a real anvil.

430

00:29:32,000 --> 00:29:33,000

What?

431

00:29:33,000 --> 00:29:38,000

It was what blacksmiths call an aço, or anvil-shaped object.

432

00:29:39,000 --> 00:29:45,000

So it looks like we need to get some pre-World War II hammers, some modern day hammers that we can get all the way to transition temperature

433

00:29:45,000 --> 00:29:49,000

and then quenched. And finally, I think we need to get ourselves a real anvil.

434

00:29:50,000 --> 00:29:52,000

Sounds like another trip to the blacksmith.

435

00:29:52,000 --> 00:29:53,000

Got it.

436

00:29:54,000 --> 00:29:57,000

So the guys are going to take another swing at this one.

437

00:29:58,000 --> 00:30:05,000

First, they'll take two modern commercial hammers, have them super hardened by a blacksmith, and see if it's crunch time.

438

00:30:07,000 --> 00:30:10,000

Then they'll try it with antique work hardened hammers.

439

00:30:10,000 --> 00:30:12,000

I see you, fans are right.

440

00:30:12,000 --> 00:30:16,000

And finally, they'll put the antique tools up against a real anvil.

441

00:30:16,000 --> 00:30:17,000

One!

442

00:30:18,000 --> 00:30:23,000

Now, last time around, Tori put together a top hammer swinging rig.

443

00:30:23,000 --> 00:30:27,000

It'll be like Kallamo. It'll be like Bledow.

444

00:30:27,000 --> 00:30:30,000

Which he promptly destroyed after the myth had been busted.

445

00:30:31,000 --> 00:30:32,000

We need hammer rig.

446

00:30:32,000 --> 00:30:36,000

Unfortunately, I chopped it up and turned it into a chop saw table.

447

00:30:38,000 --> 00:30:39,000

You think we would learn?

448

00:30:40,000 --> 00:30:46,000

While Tori puts the rig back together, Kary and Grant are off to forge a relationship with a blacksmith.

449

00:30:47,000 --> 00:30:49,000

You even look like a blacksmith. Amazing.

450

00:30:50,000 --> 00:30:51,000

Well, thank you.

451

00:30:51,000 --> 00:30:58,000

As president of the California Blacksmithing Association, Herb Uppam knows a thing or two about swing and steel.

452

00:30:58,000 --> 00:31:06,000

See, here where a rather large piece has broken free from the top and has probably flown off at nearly the speed of sound.

453

00:31:06,000 --> 00:31:07,000

Really?

454

00:31:07,000 --> 00:31:08,000

Really.

455

00:31:08,000 --> 00:31:10,000

Are you serious? The speed of sound?

456

00:31:10,000 --> 00:31:11,000

The speed of sound.

457

00:31:11,000 --> 00:31:14,000

And he has one or two hammer horror stories.

458

00:31:14,000 --> 00:31:19,000

The chip flew off the hammer head and cut the artery in their left arm.

459

00:31:19,000 --> 00:31:23,000

Oh my God! So, what happened?

460

00:31:23,000 --> 00:31:29,000

They needed some immediate first aid because the artery where it was severed was squirting blood directly out of their arm.

461

00:31:32,000 --> 00:31:37,000

Modern hammers are a blend of metals, including tungsten and chrome, which softens the tool.

462

00:31:37,000 --> 00:31:40,000

Making it less likely to chip and shatter.

463

00:31:41,000 --> 00:31:46,000

To make a hammer harder, you heat it to the point where the metal loses its magnetism.

464

00:31:46,000 --> 00:31:48,000

That's called the transition temperature.

465

00:31:48,000 --> 00:31:54,000

Then, when the steel cools, it's harder, and so the theory goes, more likely to shatter.

466

00:31:56,000 --> 00:32:02,000

Now, the mythbusters tried this last time, but their homemade forage just wasn't hot enough.

467

00:32:03,000 --> 00:32:07,000

Herb's propane-fueled forage is a different beast.

468

00:32:07,000 --> 00:32:10,000

Herb, that's like the easy-to-make oven from hell.

469

00:32:10,000 --> 00:32:15,000

Yes, it will toast your waffles to almost 3,000 degrees.

470

00:32:15,000 --> 00:32:23,000

The brand new hammers are given the heat treatment, and when they no longer hold any attraction for a magnet, they're quickly cool.

471

00:32:25,000 --> 00:32:29,000

This hammer is now as hard as it's ever going to get.

472

00:32:29,000 --> 00:32:30,000

All right.

473

00:32:30,000 --> 00:32:34,000

But has the process made it any more shatter-prone?

474

00:32:34,000 --> 00:32:36,000

It's in the danger zone.

475

00:32:36,000 --> 00:32:45,000

This, if you struck it or hit it on something, it would have a very high likelihood of shards coming off, shattering, and doing some real damage.

476

00:32:45,000 --> 00:32:47,000

Great. Excellent. Danger!

477

00:32:47,000 --> 00:32:49,000

We'll take two.

478

00:32:49,000 --> 00:32:53,000

Back at Hammer Headquarters, Tauri's reassembled the rig.

479

00:32:53,000 --> 00:32:57,000

It's powered by compressed air and a pair of pneumatic actuators.

480

00:32:58,000 --> 00:33:01,000

In three, two, one.

481

00:33:02,000 --> 00:33:04,000

Ah, it's too worse.

482

00:33:06,000 --> 00:33:09,000

Out in the blast chamber, it's hammer time.

483

00:33:09,000 --> 00:33:11,000

Bang it, bang it, bang it.

484

00:33:11,000 --> 00:33:15,000

Herb's heat-treated modern hammers are about to swing.

485

00:33:15,000 --> 00:33:19,000

If the fans are right, we should be in for a smashing time.

486

00:33:19,000 --> 00:33:24,000

I'm going to attach them to the rig closer to the head, so that way there's no chance of bending.

487

00:33:24,000 --> 00:33:27,000

All that energy will take place at the Hammer Head.

488

00:33:27,000 --> 00:33:35,000

First time round, the guys worked out that a top human hammer swing hits with a force of around 50 pounds per square inch.

489

00:33:35,000 --> 00:33:40,000

50 psi works out to be 795-inch pounds of torque.

490

00:33:40,000 --> 00:33:43,000

Will that be enough to make those hammers explode?

491

00:33:43,000 --> 00:33:48,000

We should probably define what an explosion is before we do this test.

492

00:33:48,000 --> 00:33:50,000

Did you see the Death Star when it went out?

493

00:33:50,000 --> 00:33:52,000

I want to see that, but like it's a hammer.

494

00:33:52,000 --> 00:33:54,000

I want a shattering of hammer heads.

495

00:33:54,000 --> 00:33:57,000

We want it to look like it was made of rock candy.

496

00:33:57,000 --> 00:34:02,000

Here we go. In three, two, one.

497

00:34:04,000 --> 00:34:05,000

Whoa!

498

00:34:05,000 --> 00:34:07,000

We broke off the handle.

499

00:34:07,000 --> 00:34:08,000

Yeah.

500

00:34:10,000 --> 00:34:14,000

Well, it busted, but it didn't explode.

501

00:34:14,000 --> 00:34:18,000

No, in fact, there's no damage to the head.

502

00:34:18,000 --> 00:34:25,000

If these hardened hammers won't explode, there's no way a hardware store hammer is going to even think about going west.

503

00:34:25,000 --> 00:34:30,000

These are modern hammers with modern alloys that are specifically made not to shatter.

504

00:34:30,000 --> 00:34:32,000

They're made not to break into pieces.

505

00:34:32,000 --> 00:34:34,000

I mean, they're extra, extra hardened.

506

00:34:34,000 --> 00:34:40,000

So if it's not going to happen with a hard hammer, it's not going to happen with a modern hammer.

507

00:34:40,000 --> 00:34:41,000

High five.

508

00:34:41,000 --> 00:34:43,000

Don't get too cocky, guys.

509

00:34:43,000 --> 00:34:50,000

You might have hammered home the point on the modern tools, but antiques and anvils are still waiting in the wings.

510

00:34:53,000 --> 00:34:58,000

Adam and Jamie have one last shot at shooting a sniper through his scope,

511

00:34:58,000 --> 00:35:02,000

and they're going to take it using armor-piercing ammunition.

512

00:35:02,000 --> 00:35:06,000

This bullet has a tungsten carbide core.

513

00:35:06,000 --> 00:35:11,000

It's designed to drill through quarter inch steel plate without fragmenting.

514

00:35:12,000 --> 00:35:14,000

They're down to their last scope.

515

00:35:14,000 --> 00:35:17,000

Jamie will have to be right on target.

516

00:35:17,000 --> 00:35:22,000

They stick a dot to the dummy's eye so any damage will show up clearly.

517

00:35:22,000 --> 00:35:23,000

Are you ready?

518

00:35:23,000 --> 00:35:24,000

I'm ready.

519

00:35:24,000 --> 00:35:26,000

You feeling good? You going to make this shot?

520

00:35:26,000 --> 00:35:27,000

Yeah.

521

00:35:27,000 --> 00:35:29,000

It's make or break for this myth.

522

00:35:29,000 --> 00:35:32,000

Keep breath on the exhale, squeeze slowly.

523

00:35:32,000 --> 00:35:36,000

Jamie gets a bead on the enemy's eyepiece.

524

00:35:37,000 --> 00:35:40,000

You took his wig off.

525

00:35:40,000 --> 00:35:43,000

Oh, Jamie.

526

00:35:43,000 --> 00:35:45,000

Now we're talking.

527

00:35:45,000 --> 00:35:49,000

Jamie's pulled off the perfect shot.

528

00:35:50,000 --> 00:35:53,000

That hole is right down the middle of the scope.

529

00:35:53,000 --> 00:35:55,000

It couldn't be any cleaner than that.

530

00:35:58,000 --> 00:36:02,000

I see a disintegrated dot, but maybe a hole in the middle.

531

00:36:02,000 --> 00:36:04,000

But what happened to the bullet?

532

00:36:04,000 --> 00:36:09,000

It's not amongst the scope debris, and there's no exit wound in the dummy.

533

00:36:09,000 --> 00:36:12,000

I got to say, that's worth looking into.

534

00:36:12,000 --> 00:36:15,000

I think we should take it back to the shop, cut it open, do a real autopsy,

535

00:36:15,000 --> 00:36:17,000

see if there's a bullet in him.

536

00:36:17,000 --> 00:36:18,000

Okay.

537

00:36:18,000 --> 00:36:19,000

I'm driving.

538

00:36:19,000 --> 00:36:22,000

They heft the head back to HQ.

539

00:36:26,000 --> 00:36:29,000

And with absolutely no surgical precision whatsoever.

540

00:36:29,000 --> 00:36:31,000

We're getting in there. That's good.

541

00:36:31,000 --> 00:36:34,000

Adam carves himself a wedge.

542

00:36:34,000 --> 00:36:36,000

All right, I'm going to cut this chunk out.

543

00:36:36,000 --> 00:36:40,000

I mean, don't let this guy near your fresh baked apple pie.

544

00:36:40,000 --> 00:36:42,000

Okay.

545

00:36:44,000 --> 00:36:46,000

Hey, look at that.

546

00:36:46,000 --> 00:36:53,000

That looks like debris a good two inches into the sniper's eye.

547

00:36:53,000 --> 00:36:58,000

Sure enough, like an insect trapped in amber, the bullet is buried in the gel.

548

00:36:58,000 --> 00:37:00,000

Well, gee, that looks like a bullet.

549

00:37:00,000 --> 00:37:03,000

And that means the fans have scored a direct hit.

550

00:37:03,000 --> 00:37:04,000

Well, that's definitive.

551

00:37:04,000 --> 00:37:09,000

This bullet made it all the way through one of these scopes and in far enough to be a kill.

552

00:37:09,000 --> 00:37:10,000

That's a plausible myth.

553

00:37:10,000 --> 00:37:11,000

Yep, he's dead.

554

00:37:11,000 --> 00:37:12,000

The fans were right.

555

00:37:12,000 --> 00:37:18,000

I'm really glad that we no longer have to worry about a 3,000 yard restraining order

556

00:37:18,000 --> 00:37:20,000

against angry sniper fans.

557

00:37:24,000 --> 00:37:25,000

Still to come.

558

00:37:25,000 --> 00:37:34,000

The guys steal themselves for some anvil antics and our lone trombone sends us out on a high note.

559

00:37:44,000 --> 00:37:51,000

The mythbusters have shown that a modern hammer, even a heat treated one, isn't about to explode the user's face.

560

00:37:51,000 --> 00:37:54,000

There's no damage to the head.

561

00:37:55,000 --> 00:37:58,000

So Jamie was never in any real danger.

562

00:37:58,000 --> 00:38:03,000

But what if our beret banger had been using historic hammers?

563

00:38:03,000 --> 00:38:08,000

Before World War II, hammers were fashioned from straight steel.

564

00:38:08,000 --> 00:38:16,000

Theoretically, the high carbon content makes them more brittle and therefore more likely to explode on impact.

565

00:38:16,000 --> 00:38:22,000

Tori takes the heads of two antique tools and welds them under the swing and rig.

566

00:38:23,000 --> 00:38:26,000

This next test should address two issues.

567

00:38:26,000 --> 00:38:30,000

One, pre-World War II hammers, which means they should have a higher carbon content.

568

00:38:30,000 --> 00:38:33,000

And secondly, they are seriously work hardened.

569

00:38:33,000 --> 00:38:37,000

Blacksmith work hardened, not just our shop work hardened.

570

00:38:37,000 --> 00:38:39,000

Let's see if the fans are right.

571

00:38:39,000 --> 00:38:42,000

And three, two, one.

572

00:38:42,000 --> 00:38:45,000

The hammers go head to head.

573

00:38:45,000 --> 00:38:47,000

Oh, that was a massive hit.

574

00:38:47,000 --> 00:38:51,000

But apparently, even old hammers die hard.

575

00:38:51,000 --> 00:38:54,000

Obviously, neither of these exploded.

576

00:38:54,000 --> 00:38:56,000

No, not even that chip.

577

00:38:56,000 --> 00:39:06,000

Not content with sending an email, one blacksmith named Dorothy has actually sent in some pre-World War II hammers for the guys to test.

578

00:39:06,000 --> 00:39:11,000

She sure her antique tools will give the guys their big break.

579

00:39:11,000 --> 00:39:14,000

These have been work hardened over many years.

580

00:39:14,000 --> 00:39:19,000

And she's actually retired them because she feels they're too unsafe.

581

00:39:19,000 --> 00:39:24,000

And these are old hammers, the Rhett to go.

582

00:39:24,000 --> 00:39:26,000

All right, so are we.

583

00:39:26,000 --> 00:39:27,000

Here we go.

584

00:39:27,000 --> 00:39:29,000

Oh, wait, I don't need this.

585

00:39:29,000 --> 00:39:31,000

Don't worry, Grant.

586

00:39:31,000 --> 00:39:33,000

Never can be too safe.

587

00:39:33,000 --> 00:39:36,000

All right, in three, two, one.

588

00:39:40,000 --> 00:39:41,000

Whoa!

589

00:39:41,000 --> 00:39:44,000

It looks like they hit right on the face.

590

00:39:44,000 --> 00:39:45,000

Oh, yeah.

591

00:39:46,000 --> 00:39:47,000

And what do you know?

592

00:39:47,000 --> 00:39:53,000

One of Dorothy's retired tools has given this myth its best crack at success.

593

00:39:53,000 --> 00:39:55,000

It gets a chip and a crack.

594

00:39:55,000 --> 00:39:56,000

Yeah, that's not bad.

595

00:39:56,000 --> 00:39:57,000

She wasn't lying.

596

00:39:57,000 --> 00:39:58,000

They're ready to go.

597

00:39:58,000 --> 00:40:04,000

Surely, if it's subjected to a second blow straight away, it'll shatter like honeycomb.

598

00:40:04,000 --> 00:40:07,000

You know, this is probably our best chance at getting an exploding hammerhead.

599

00:40:07,000 --> 00:40:08,000

That's true.

600

00:40:08,000 --> 00:40:10,000

They've got some serious fissures and weaknesses in there.

601

00:40:10,000 --> 00:40:12,000

Yeah, this is it.

602

00:40:12,000 --> 00:40:13,000

Here we go.

603

00:40:13,000 --> 00:40:16,000

In three, two, one.

604

00:40:18,000 --> 00:40:23,000

That hammer has lost its head, but still no explosive shattering.

605

00:40:23,000 --> 00:40:28,000

And if you hit a hammer and you saw a crack like that, you would obviously stop using it.

606

00:40:28,000 --> 00:40:29,000

Absolutely.

607

00:40:32,000 --> 00:40:33,000

You ready?

608

00:40:33,000 --> 00:40:34,000

Yeah.

609

00:40:34,000 --> 00:40:37,000

Tori, Carrie and Grant are still trying to make a hammer explode.

610

00:40:37,000 --> 00:40:40,000

They've really been putting their heads together.

611

00:40:41,000 --> 00:40:44,000

But to date, their best result has been a single fracture.

612

00:40:44,000 --> 00:40:46,000

I think they does it for hammer versus hammer.

613

00:40:46,000 --> 00:40:47,000

Yeah.

614

00:40:47,000 --> 00:40:51,000

Maybe, Grant, but fans want one more test.

615

00:40:51,000 --> 00:40:53,000

Hammer versus anvil.

616

00:40:53,000 --> 00:40:57,000

And they want to see a real anvil this time, not the lightweight copy it tried to pass

617

00:40:57,000 --> 00:40:59,000

off in the original story.

618

00:40:59,000 --> 00:41:07,000

This is 260 pounds worth of heat treated tool steel that is a real anvil.

619

00:41:07,000 --> 00:41:11,000

Now they're looking for a way to slam a hammer down on it.

620

00:41:11,000 --> 00:41:16,000

The sharpest tool in the shed has been struck by an idea.

621

00:41:16,000 --> 00:41:19,000

Decapitation hazard, everybody.

622

00:41:19,000 --> 00:41:24,000

This powerful rotating rig was once used to cut a sword with a sword.

623

00:41:27,000 --> 00:41:30,000

What I need to do is rotate it 90 degrees.

624

00:41:30,000 --> 00:41:34,000

So that way, instead of doing this, the rig will do this.

625

00:41:37,000 --> 00:41:42,000

This new hammer heave and hunk of metal will also be powered by compressed air.

626

00:41:42,000 --> 00:41:46,000

The really good thing about it is that it can be scaled up.

627

00:41:46,000 --> 00:41:52,000

We can start out at human pressure, but then it has the ability, thanks to a huge actuator,

628

00:41:52,000 --> 00:41:54,000

to go to superhuman strength.

629

00:41:54,000 --> 00:41:56,000

Tori attaches an antique hammer.

630

00:41:56,000 --> 00:42:02,000

Remember, the older and more work hardened the tool, the harder and more brittle the steel.

631

00:42:03,000 --> 00:42:05,000

All right, you guys ready?

632

00:42:05,000 --> 00:42:08,000

In three, two, one.

633

00:42:08,000 --> 00:42:11,000

Did that look like anything happened?

634

00:42:11,000 --> 00:42:14,000

Hammer hits anvil with maximum human force.

635

00:42:14,000 --> 00:42:17,000

795 inch pounds of torque.

636

00:42:17,000 --> 00:42:20,000

Holy crap.

637

00:42:20,000 --> 00:42:23,000

There's a huge crack in the head of this.

638

00:42:23,000 --> 00:42:29,000

It's very faint, but you can see right along there is a hairline crack.

639

00:42:29,000 --> 00:42:35,000

Maybe, but there are no chips, no steel shards, and definitely no explosion.

640

00:42:35,000 --> 00:42:37,000

All right, let's wrap it up.

641

00:42:37,000 --> 00:42:40,000

Superhuman strength? You got it.

642

00:42:40,000 --> 00:42:43,000

Grant ups the air pressure to 100 psi.

643

00:42:43,000 --> 00:42:48,000

The rig will now deliver more than 1500 inch pounds of torque.

644

00:42:48,000 --> 00:42:52,000

Way faster, way stronger than any human could possibly swing a hammer.

645

00:42:52,000 --> 00:42:55,000

Three, two, one.

646

00:42:55,000 --> 00:43:01,000

The God of Thunder himself couldn't have any heart.

647

00:43:01,000 --> 00:43:03,000

Well, the head didn't explode.

648

00:43:03,000 --> 00:43:05,000

Yeah, that was a massive hit.

649

00:43:05,000 --> 00:43:07,000

I thought that was going to be it.

650

00:43:07,000 --> 00:43:10,000

I mean, we took every single factor into account.

651

00:43:10,000 --> 00:43:13,000

Work hardened pre-World War II, real anvil.

652

00:43:13,000 --> 00:43:14,000

Thanks.

653

00:43:14,000 --> 00:43:15,000

Superhuman strength.

654

00:43:15,000 --> 00:43:16,000

You want to stop talking for a sec?

655

00:43:16,000 --> 00:43:17,000

Look at that.

656

00:43:17,000 --> 00:43:18,000

It opened the crack up bigger.

657

00:43:18,000 --> 00:43:20,000

That is no chip even.

658

00:43:20,000 --> 00:43:22,000

That's not an explosive shattering.

659

00:43:22,000 --> 00:43:24,000

I would have thought this would have done it.

660

00:43:24,000 --> 00:43:27,000

Time to down tools, people.

661

00:43:27,000 --> 00:43:31,000

This myth has gone under the hammer.

662

00:43:31,000 --> 00:43:34,000

I feel like we really busted this one the first time,

663

00:43:34,000 --> 00:43:36,000

and I think that still stands.

664

00:43:36,000 --> 00:43:40,000

I totally agree. Hammer heads will not explode if you hit them against each other

665

00:43:40,000 --> 00:43:42,000

or on an anvil, whether the anvil is real or not.

666

00:43:42,000 --> 00:43:45,000

Yeah, and we've never denied that the chips can fly off the hammer,

667

00:43:45,000 --> 00:43:49,000

and those chips can be extremely dangerous and potentially lethal,

668

00:43:49,000 --> 00:43:50,000

as we've heard in some cases.

669

00:43:50,000 --> 00:43:55,000

But as far as an explosive shattering, it's just not going to happen.

670

00:44:20,000 --> 00:44:22,000

The only thing we could do to put this to bed once and for all,

671

00:44:22,000 --> 00:44:25,000

and that would be to take our second backup trombone

672

00:44:25,000 --> 00:44:31,000

and solder or weld the mouthpiece so that no air can escape from it.

673

00:44:31,000 --> 00:44:35,000

Our mustachioed maestro takes their one remaining mouthpiece,

674

00:44:35,000 --> 00:44:38,000

and with all the delicate skill of a good drummer,

675

00:44:38,000 --> 00:44:40,000

bashes a bolt of metal into it.

676

00:44:40,000 --> 00:44:42,000

What I've done is plugged this up physically,

677

00:44:42,000 --> 00:44:46,000

and we're going to actually solder it into the end of the trombone,

678

00:44:46,000 --> 00:44:51,000

so there's no other way for the gas to escape other than through the slide.

679

00:44:51,000 --> 00:44:54,000

Then Adam takes over with solder and flame.

680

00:44:54,000 --> 00:44:57,000

I put a bolt in there, and it's solid solder,

681

00:44:57,000 --> 00:45:00,000

and it's soldered right into the body of the trombone.

682

00:45:00,000 --> 00:45:05,000

This mouthpiece and this trombone never shall be rent asunder again.

683

00:45:05,000 --> 00:45:07,000

The trombone is now sealed shut.

684

00:45:07,000 --> 00:45:11,000

Will that be enough to give the fans the result they're looking for?

685

00:45:11,000 --> 00:45:12,000

Good to go.

686

00:45:12,000 --> 00:45:15,000

Adam's mug is looking smug.

687

00:45:15,000 --> 00:45:19,000

I do think it is part of due diligence to put this thing to bed,

688

00:45:19,000 --> 00:45:21,000

but I don't think it's going to do anything.

689

00:45:21,000 --> 00:45:26,000

It's not going to send this slide out towards Buster.

690

00:45:26,000 --> 00:45:27,000

Just no way.

691

00:45:27,000 --> 00:45:29,000

Molder's brass is neat.

692

00:45:29,000 --> 00:45:31,000

Alright, let's see what happens.

693

00:45:31,000 --> 00:45:35,000

This is mad trombonist final test, final revisit,

694

00:45:35,000 --> 00:45:42,000

welded shut mouthpiece in five, four, three, two, one.

695

00:45:45,000 --> 00:45:49,000

Ha-ha-ha-ha.

696

00:45:49,000 --> 00:45:51,000

Bang!

697

00:45:55,000 --> 00:45:57,000

Well, the trombonist is down

698

00:45:57,000 --> 00:45:59,000

and Buster hasn't budged,

699

00:45:59,000 --> 00:46:02,000

but hang on a cotton-picking minute.

700

00:46:02,000 --> 00:46:04,000

The slide came off our trombone.

701

00:46:04,000 --> 00:46:05,000

Where'd it go?

702

00:46:06,000 --> 00:46:08,000

Jamie!

703

00:46:08,000 --> 00:46:10,000

It's up there, dude.

704

00:46:10,000 --> 00:46:17,000

That's right, a full 70 feet away on the side of a hill.

705

00:46:17,000 --> 00:46:18,000

Only on Mythbusters.

706

00:46:18,000 --> 00:46:24,000

There's a lot of people cheering at their television sets right about now.

707

00:46:24,000 --> 00:46:27,440

I was all arrogant and saying, no, it's not going to work.

708

00:46:27,440 --> 00:46:28,440

This is just stupid.

709

00:46:28,440 --> 00:46:31,080

I can't believe we're doing this.

710

00:46:31,080 --> 00:46:33,040

That's right, he did say that.

711

00:46:33,040 --> 00:46:38,240

It's not going to send this slide out towards Buster.

712

00:46:38,240 --> 00:46:40,240

There's no way.

713

00:46:40,240 --> 00:46:46,240

The slide took off like a stinger missile, somehow missing our conductor all together,

714

00:46:46,240 --> 00:46:48,240

but probably knocking out the doorman.

715

00:46:48,240 --> 00:46:50,740

Well, that's it, it definitely did leave during the explosion.

716

00:46:50,740 --> 00:46:55,640

Go right past Buster.

717

00:46:55,640 --> 00:47:02,080

You know, it's weird having a job where you really like being wrong.

718

00:47:02,080 --> 00:47:03,080

That's true.

719

00:47:03,080 --> 00:47:06,920

But I mean, that's just awesome.

720

00:47:06,920 --> 00:47:11,920

Despite that spectacular result, the guys aren't about to change their tune.

721

00:47:11,920 --> 00:47:13,920

This doesn't change the status of the myth.

722

00:47:13,920 --> 00:47:17,920

We've already shown that a person whose lips are basically tied to the mouthpiece

723

00:47:17,920 --> 00:47:20,920

didn't put enough back pressure to cause the same result.

724

00:47:20,920 --> 00:47:26,920

So, only if you had a metal person whose metal lips were welded to the mouthpiece

725

00:47:26,920 --> 00:47:28,920

would you have had the same result.

726

00:47:28,920 --> 00:47:30,920

It's still Buster.

727

00:47:30,920 --> 00:47:34,920

But it goes to show the fans are right to make overtures

728

00:47:34,920 --> 00:47:37,920

if they think the mythbusters are off-key.

729

00:47:37,920 --> 00:47:40,920

Based on what I've seen, the complaint the fans had about our diligence

730

00:47:40,920 --> 00:47:42,920

the first time we did this test seems to be correct.

731

00:47:42,920 --> 00:47:45,920

Well, I still gotta say the myth is busted.

732

00:47:45,920 --> 00:47:46,920

Oh, no doubt.

733

00:47:46,920 --> 00:47:51,920

I still put this easily in the busted category, but I am very pleased to see

734

00:47:51,920 --> 00:47:58,920

that the fans' concept and theory about the reason this slide could have left is actually correct.

735

00:47:58,920 --> 00:47:59,920

Yeah, well, we're done.

736

00:47:59,920 --> 00:48:00,920

All right.

737

00:48:04,920 --> 00:48:05,920

Let's go.

738

00:48:34,920 --> 00:48:44,920

Mythbusters books and DVDs are available at Dimmix and DVDs at JB Hi-Fi.