

1

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

Do not try anything that we're doing on this episode at home.

2

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

We're what you call experts.

3

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

I'm not sure what to do with this.

4

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

I'm just gonna try to get the best of the best.

5

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

I'm not sure what to do with this.

6

00:00:43,000 --> 00:00:47,000

I'm just gonna try to get the best of the best.

7

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

I'm just gonna try to get the best of the best.

8

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

I'm just gonna try to get the best of the best.

9

00:00:55,000 --> 00:00:59,000

What?

10

00:01:06,000 --> 00:01:09,000

Who are the misbusters?

11

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

Adam Savage

12

00:01:10,000 --> 00:01:11,000

Adam Dutcher

13

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

and Jamie Heinerman

14

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

That's one of the ugliest things I've ever seen.

15

00:01:16,000 --> 00:01:20,000

Between them more than 30 years of special effects experience

16

00:01:20,000 --> 00:01:23,000

together with Carrie Byron

17

00:01:23,000 --> 00:01:24,000

around.

18

00:01:24,000 --> 00:01:25,000

Torey Galachy.

19

00:01:25,000 --> 00:01:26,440

This is going to be so awesome.

20

00:01:26,440 --> 00:01:27,440

And Brandy Maharu.

21

00:01:27,440 --> 00:01:28,940

Somebody ordered an explosion.

22

00:01:28,940 --> 00:01:41,640

They don't just tell the myths, they put them to the test.

23

00:01:41,640 --> 00:01:48,560

Buckle up your bandolier, because this is Bullet Bologna.

24

00:01:48,560 --> 00:01:58,040

In a feast of six sensational firearm fables, the team busts out their weapons of mass deduction.

25

00:01:58,040 --> 00:01:59,440

It's for science.

26

00:01:59,440 --> 00:02:05,480

To uncover the truth behind the bullets.

27

00:02:05,480 --> 00:02:10,160

And the first question on their quest, what's first?

28

00:02:10,160 --> 00:02:12,000

I'm thinking bet barrel.

29

00:02:12,000 --> 00:02:14,280

You're going to have to give me a little more to go on than that.

30

00:02:14,280 --> 00:02:15,280

Okay.

31

00:02:15,280 --> 00:02:20,440

In a million cartoons, one character grabs the gun of another character and bends it,

32

00:02:20,440 --> 00:02:24,080

hoping to neutralize the weapon, but it still fires.

33

00:02:24,080 --> 00:02:27,320

So we can shoot around in corners and stuff.

34

00:02:27,320 --> 00:02:29,640

Maybe if it works, that might be possible.

35

00:02:29,640 --> 00:02:31,520

Sounds like fun.

36

00:02:31,520 --> 00:02:37,000

When a cartoon character nonchalantly bends the barrel, the gun always seems to fire just

37

00:02:37,000 --> 00:02:41,360

fine, albeit with an appropriately twisted trajectory.

38

00:02:41,360 --> 00:02:46,080

But wouldn't the rifle's finely balanced ballistics actually be, well, all bent out

39

00:02:46,080 --> 00:02:48,760

of shape?

40

00:02:48,760 --> 00:02:49,760

So what's the plan?

41

00:02:49,760 --> 00:02:52,480

The plan I think is pretty elaborate, so see if you can follow along.

42

00:02:52,480 --> 00:02:57,720

I think what we should do is get a gun with the barrel, remove the barrel, and wait for

43

00:02:57,720 --> 00:03:00,040

it.

44

00:03:00,040 --> 00:03:02,040

We bend it.

45

00:03:02,040 --> 00:03:03,040

Woo!

46

00:03:03,040 --> 00:03:05,680

Yeah, I love this problem-solving stuff, man.

47

00:03:05,680 --> 00:03:11,720

That's the best part of this job.

48

00:03:11,720 --> 00:03:12,720

Genius.

49

00:03:12,720 --> 00:03:13,720

Thanks.

50

00:03:13,720 --> 00:03:22,440

As Adam Savant Savage said, it's a pretty simple plan.

51

00:03:22,440 --> 00:03:23,440

Awesome.

52

00:03:23,440 --> 00:03:28,400

And at the Yolo County bomb range, they're all set to bend it like gunbusters.

53

00:03:28,400 --> 00:03:31,640

You got to come to me, man.

54

00:03:31,640 --> 00:03:34,720

We already know that it's possible to shoot a gun with a bent barrel.

55

00:03:34,760 --> 00:03:38,560

Nazis did it in World War II with the thing they called the Kremlauf.

56

00:03:38,560 --> 00:03:43,000

But the Kremlauf was engineered specifically for that purpose.

57

00:03:43,000 --> 00:03:48,320

What we want to find out is if we can take a normal gun like this one and bend the barrel

58

00:03:48,320 --> 00:03:51,000

and have it work well enough to shoot around corners.

59

00:03:51,000 --> 00:03:54,600

Yep, with an ad hoc cartoon curl.

60

00:03:54,600 --> 00:03:55,600

Loaded.

61

00:03:55,600 --> 00:03:57,000

Range is hot.

62

00:03:57,000 --> 00:04:00,560

Really leave you with a fully functional firearm.

63

00:04:00,560 --> 00:04:01,560

Ready when you are, sir.

64

00:04:01,560 --> 00:04:05,720

Well, first up to find out is a straight shooting control.

65

00:04:05,720 --> 00:04:06,720

And three.

66

00:04:06,720 --> 00:04:09,320

How far into a block of ballistics gel?

67

00:04:09,320 --> 00:04:10,320

Two.

68

00:04:10,320 --> 00:04:11,800

Will the bullet penetrate?

69

00:04:11,800 --> 00:04:12,800

One.

70

00:04:12,800 --> 00:04:14,800

There you go.

71

00:04:14,800 --> 00:04:16,240

That was neat and pretty.

72

00:04:16,240 --> 00:04:17,240

Let's go check it out.

73

00:04:17,240 --> 00:04:18,240

Okay.

74

00:04:18,240 --> 00:04:23,480

And the benchmark is a through and through.

75

00:04:23,480 --> 00:04:26,360

And through again?

76

00:04:26,360 --> 00:04:27,640

This is funny.

77

00:04:27,640 --> 00:04:31,920

It actually went all the way through it, hit our bullet resistant glass and bounce back

78

00:04:31,920 --> 00:04:35,400

in the ballistics gel about an inch and a half.

79

00:04:35,400 --> 00:04:36,960

It went thunk, thunk.

80

00:04:36,960 --> 00:04:42,120

So to bend our barrels, we figure we're going to heat it up first to make it more malleable.

81

00:04:42,120 --> 00:04:45,520

That means getting it like red or cherry red hot.

82

00:04:45,520 --> 00:04:52,160

And to do that, we've got a sword forge, which for some reason Adam just happened to have.

83

00:04:52,160 --> 00:04:54,080

I didn't just happen to have it.

84

00:04:54,080 --> 00:04:58,600

I, since I've always wanted to learn sword making, I've been admiring these sword forges

85

00:04:58,600 --> 00:05:01,800

for a while and I was looking for an excuse to buy one and this episode was a perfect

86

00:05:01,800 --> 00:05:02,800

excuse.

87

00:05:02,800 --> 00:05:06,000

So I didn't just happen to have one, I happened to want one.

88

00:05:06,000 --> 00:05:09,040

Of course you did.

89

00:05:09,040 --> 00:05:10,040

Let's fire it up.

90

00:05:10,040 --> 00:05:11,040

Okay.

91

00:05:11,040 --> 00:05:18,760

So what exactly is a sword forge as its name implies it is a forge.

92

00:05:18,760 --> 00:05:19,760

Perfect.

93

00:05:19,760 --> 00:05:24,920

In an extremely hot oven in the thousands of degrees for manipulating metal for making

94

00:05:24,920 --> 00:05:25,920

swords.

95

00:05:25,920 --> 00:05:26,920

Here we go.

96

00:05:26,920 --> 00:05:32,920

In a few minutes, we should have some delicious gun barrel to eat and it's perfect for our

97

00:05:32,920 --> 00:05:33,920

purposes.

98

00:05:33,920 --> 00:05:34,920

It's getting there.

99

00:05:34,920 --> 00:05:38,080

It's powered by five gas jets of propane.

100

00:05:38,080 --> 00:05:42,760

Once that gets cherry red, we'll pull it out and bend it to the angle that we need.

101

00:05:42,760 --> 00:05:43,760

Oh yeah.

102

00:05:43,760 --> 00:05:44,760

Oh it's moving.

103

00:05:44,760 --> 00:05:45,760

Look at that.

104

00:05:45,760 --> 00:05:46,760

All right.

105

00:05:46,760 --> 00:05:50,960

And with a barrel pulled to a perfect 45 degrees.

106

00:05:50,960 --> 00:05:51,960

Excellent.

107

00:05:51,960 --> 00:05:54,240

Let's let it cool.

108

00:05:54,240 --> 00:06:01,240

Then quenched.

109

00:06:01,240 --> 00:06:03,240

Prepped and remounted.

110

00:06:03,240 --> 00:06:08,960

It just kind of feels funny, don't it?

111

00:06:08,960 --> 00:06:10,480

It feels funny.

112

00:06:10,480 --> 00:06:13,080

Here's Adam with a prediction and a plan.

113

00:06:13,080 --> 00:06:15,800

I for one think that that bullet's going to come out.

114

00:06:15,840 --> 00:06:16,840

There we go.

115

00:06:16,840 --> 00:06:21,760

It's very close to the same amount of power as before and if it does, range is hot.

116

00:06:21,760 --> 00:06:25,760

Well, we're going to bend this barrel some more and see how extreme we can bend it.

117

00:06:25,760 --> 00:06:26,760

It's still going to bullet out.

118

00:06:26,760 --> 00:06:27,760

All right.

119

00:06:27,760 --> 00:06:33,760

45 degree bent barrel in three, two, one, go.

120

00:06:33,760 --> 00:06:38,760

It fired.

121

00:06:38,760 --> 00:06:40,800

Fired but how successful it is.

122

00:06:40,800 --> 00:06:42,200

Oh look at that.

123

00:06:42,200 --> 00:06:45,200

It went all the way through.

124

00:06:45,200 --> 00:06:53,120

It went all the way through, bounced off the bulletproof glass and look, landed on top

125

00:06:53,120 --> 00:06:54,960

of our ballistics gel.

126

00:06:54,960 --> 00:06:55,960

That is awesome.

127

00:06:55,960 --> 00:06:57,920

Well the numbers are in.

128

00:06:57,920 --> 00:07:03,680

Our first control bullet fired from the straight barrel, shot out of barrel at 1216 feet per

129

00:07:03,680 --> 00:07:04,680

second.

130

00:07:04,680 --> 00:07:11,400

Our second bullet fired out of this, the 45 degree angled barrel, 1131 feet per second.

131

00:07:11,600 --> 00:07:13,120

45 degrees still lethal.

132

00:07:13,120 --> 00:07:14,120

Wow.

133

00:07:14,120 --> 00:07:18,040

That's a loss of energy of only 7%.

134

00:07:18,040 --> 00:07:21,040

I'm starting to feel real optimistic.

135

00:07:21,040 --> 00:07:22,040

Let's bend it some more.

136

00:07:22,040 --> 00:07:23,040

Let's bend it some more.

137

00:07:23,040 --> 00:07:33,040

Roll up, roll up, the Mythbusters Carnival of Ballistic Carnage continues.

138

00:07:33,040 --> 00:07:36,520

Okay, so what do we got?

139

00:07:36,520 --> 00:07:40,440

Well, we couldn't do an entire episode on bullets without doing another installment

140

00:07:40,480 --> 00:07:43,480

of what is bulletproof?

141

00:07:43,480 --> 00:07:47,000

All right, so what's the plan?

142

00:07:47,000 --> 00:07:52,200

Actually, we have a carnival style shooting gallery waiting for us at the gun range.

143

00:07:52,200 --> 00:07:57,200

Oh, I get to relive my childhood.

144

00:07:57,200 --> 00:08:03,800

Yep, no collection of guns and ammo would be complete without a stroll down bulletproof

145

00:08:03,800 --> 00:08:04,800

leg.

146

00:08:04,800 --> 00:08:07,200

I can see you.

147

00:08:07,200 --> 00:08:11,080

Over the years, the team has uncovered some life saving surprises.

148

00:08:11,080 --> 00:08:13,400

Holy Cremoli.

149

00:08:13,400 --> 00:08:17,040

But life saving firearm folklore.

150

00:08:17,040 --> 00:08:18,040

Find a per shooting gallery.

151

00:08:18,040 --> 00:08:21,040

It's the gift that keeps on giving.

152

00:08:21,040 --> 00:08:23,040

It's the Mythbusters shooting gallery.

153

00:08:23,040 --> 00:08:25,120

Oh my God, this is so awesome.

154

00:08:25,120 --> 00:08:26,120

That's crazy.

155

00:08:26,120 --> 00:08:29,200

All right, first item up, cape measure.

156

00:08:29,200 --> 00:08:30,200

Who gets to shoot first?

157

00:08:30,200 --> 00:08:31,200

Me, me, me.

158

00:08:31,200 --> 00:08:32,200

I think he wants to go.

159

00:08:32,200 --> 00:08:33,200

I guess I guess.

160

00:08:33,200 --> 00:08:34,200

This is so cool.

161

00:08:34,200 --> 00:08:37,720

So I actually have heard of this one.

162

00:08:37,720 --> 00:08:39,400

It goes way back.

163

00:08:39,400 --> 00:08:42,080

Contractor has a tape measure in his pocket.

164

00:08:42,080 --> 00:08:45,960

He is shot and the bullet doesn't make it through and protects his heart.

165

00:08:45,960 --> 00:08:47,440

All right, you guys ready?

166

00:08:47,440 --> 00:08:48,440

Ready.

167

00:08:48,440 --> 00:08:51,420

So we're going to start out shooting this with a 22.

168

00:08:51,420 --> 00:08:54,640

If it does make it through, we're going to increase the caliber.

169

00:08:54,640 --> 00:08:57,080

This should be fun.

170

00:08:57,080 --> 00:09:02,240

So Grant steps on up and takes aim to tag one of the moving tape measures and test its

171

00:09:02,240 --> 00:09:05,480

bulletproof qualities.

172

00:09:05,480 --> 00:09:12,600

But it takes a few shots before he gets a direct hit.

173

00:09:12,600 --> 00:09:15,800

Now how did it fair at the live ammunition fair?

174

00:09:15,800 --> 00:09:18,000

Dude, you nailed it.

175

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

Did it make it all the way through?

176

00:09:19,000 --> 00:09:20,000

No, it didn't go through.

177

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

It stopped the 22 caliber.

178

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

Right on.

179

00:09:22,000 --> 00:09:23,720

Well, let's move on to the nine and see what that does.

180

00:09:23,720 --> 00:09:24,720

Cool.

181

00:09:24,720 --> 00:09:26,320

The tape measure saved your life.

182

00:09:26,320 --> 00:09:27,760

Success so far.

183

00:09:27,760 --> 00:09:30,040

But okay, ready for nine millimeter?

184

00:09:30,040 --> 00:09:31,040

Absolutely.

185

00:09:31,040 --> 00:09:32,040

All right.

186

00:09:32,040 --> 00:09:42,040

So the material would be expected to stop any handgun, not just a low velocity 22.

187

00:09:42,040 --> 00:09:47,560

So what happens when the stakes are up?

188

00:09:47,560 --> 00:09:50,320

It went in there, but didn't come out.

189

00:09:50,320 --> 00:09:51,320

No way.

190

00:09:51,320 --> 00:09:52,320

Nine millimeter.

191

00:09:52,320 --> 00:09:56,320

It stopped at nine millimeter round.

192

00:09:56,320 --> 00:09:58,120

This is absolutely astounding.

193

00:09:58,120 --> 00:10:00,040

A 22 didn't make it through this.

194

00:10:00,040 --> 00:10:01,480

And this is a regular tape measure.

195

00:10:01,480 --> 00:10:03,880

A nine millimeter didn't make it through.

196

00:10:03,880 --> 00:10:06,000

This is not a lot of steel here.

197

00:10:06,000 --> 00:10:07,240

Here we go.

198

00:10:07,240 --> 00:10:08,400

But you know what?

199

00:10:08,400 --> 00:10:12,600

Next up is the 40 caliber.

200

00:10:12,600 --> 00:10:17,640

And unfortunately, nice shot right in the middle.

201

00:10:17,640 --> 00:10:20,840

I think that's where the tape measure is going to lose.

202

00:10:20,840 --> 00:10:21,840

Oh yeah.

203

00:10:21,840 --> 00:10:22,840

All right.

204

00:10:22,840 --> 00:10:27,280

So it looks like the tape measure stopped the 22, a nine millimeter, but not a 40 caliber.

205

00:10:27,280 --> 00:10:29,280

This one is busted.

206

00:10:29,400 --> 00:10:35,520

Coming up on Mythbusters.

207

00:10:35,520 --> 00:10:38,680

Fat cats and bob hits.

208

00:10:38,680 --> 00:10:40,280

Crazy cartoon curves.

209

00:10:40,280 --> 00:10:41,840

It's kind of handy.

210

00:10:41,840 --> 00:10:42,840

Deep fried guns.

211

00:10:42,840 --> 00:10:44,840

Fire gun in the vacuum.

212

00:10:44,840 --> 00:10:50,680

And guns in space.

213

00:10:50,680 --> 00:10:52,920

This is Bullet Bologna.

214

00:10:52,920 --> 00:10:55,360

Come on down to James House of Bend barrels.

215

00:10:55,360 --> 00:11:01,320

And the Mythbusters are tackling a bumper pack of ballistic mysteries.

216

00:11:01,320 --> 00:11:04,920

And classic cinematic clichés.

217

00:11:04,920 --> 00:11:07,400

So button up your bulletproof vest.

218

00:11:07,400 --> 00:11:09,840

Ow, firing a gun in a vacuum.

219

00:11:09,840 --> 00:11:13,920

Because there's six myths to solve.

220

00:11:13,920 --> 00:11:16,520

And with first up bent barrel success.

221

00:11:16,520 --> 00:11:17,520

Fire.

222

00:11:17,520 --> 00:11:19,720

Adam's feeling real optimistic.

223

00:11:19,720 --> 00:11:22,400

I'm starting to feel real optimistic.

224

00:11:22,600 --> 00:11:28,000

Jamie's noticed an interesting, not so encouraging ballistic detail.

225

00:11:28,000 --> 00:11:32,520

Barely inches after leaving the gun, the bullet has started to tumble.

226

00:11:32,520 --> 00:11:36,360

So it's being very seriously affected by this bend.

227

00:11:36,360 --> 00:11:40,800

I don't know what exactly it's doing, but I suspect that it's going to get worse the

228

00:11:40,800 --> 00:11:45,240

more that we bend that barrel.

229

00:11:45,240 --> 00:11:49,320

Now our first bent barrel, the one bent at 45 degrees, that was just a dresser hurstle.

230

00:11:49,320 --> 00:11:52,160

That was to test our equipment, our machinery and our technique.

231

00:11:52,480 --> 00:11:54,880

This gun bent at a 90 degree angle.

232

00:11:54,880 --> 00:11:58,640

This is where the rubber meets the road.

233

00:11:58,640 --> 00:11:59,960

That's just wrong.

234

00:11:59,960 --> 00:12:03,120

This is potentially a gun that shoots around corners.

235

00:12:03,120 --> 00:12:05,120

And if a bullet comes out, it's still lethal.

236

00:12:05,120 --> 00:12:06,880

How cool is that?

237

00:12:06,880 --> 00:12:08,760

Also, how illegal is that?

238

00:12:08,760 --> 00:12:11,920

Seriously, does anyone check how illegal this is?

239

00:12:11,920 --> 00:12:14,320

Meanwhile, glass half empty, Heinemann.

240

00:12:14,320 --> 00:12:16,080

Oh, Jamie, this is perfect.

241

00:12:16,080 --> 00:12:21,080

Thinks the right angle will be the last right angle before things go wrong.

242

00:12:21,080 --> 00:12:25,920

This 90 degree barrel is the maximum point that I think that the bullet is probably going

243

00:12:25,920 --> 00:12:26,920

to come out of.

244

00:12:26,920 --> 00:12:27,920

What do we got?

245

00:12:27,920 --> 00:12:33,280

Beyond this, what it means is that the bullet's actually having to go down an opposite path

246

00:12:33,280 --> 00:12:34,440

that it came in on.

247

00:12:34,440 --> 00:12:36,280

All right, here we go.

248

00:12:36,280 --> 00:12:40,600

At this point, it's just going off at right angles, and I think it'll make it.

249

00:12:40,600 --> 00:12:45,120

Shooting bullets around corners in three, two, one, go.

250

00:12:45,120 --> 00:12:49,720

Hey, it hit the ballistics gel and the box jumped.

251

00:12:50,280 --> 00:12:55,840

Yep, once again, the block stand jumps as the bullet penetrates the ballistics gel.

252

00:12:55,840 --> 00:12:59,840

But does its penetrating power match up?

253

00:12:59,840 --> 00:13:01,360

Look at that.

254

00:13:01,360 --> 00:13:02,880

That's still a significant hit.

255

00:13:02,880 --> 00:13:03,880

It is a significant hit.

256

00:13:03,880 --> 00:13:07,280

It's slightly less than the middle one, but it went all the way through the ballistics

257

00:13:07,280 --> 00:13:08,280

gel.

258

00:13:08,280 --> 00:13:09,760

That puppy's lethal.

259

00:13:09,760 --> 00:13:11,280

And that's a conclusive result.

260

00:13:11,280 --> 00:13:16,760

We shot a gun around a corner.

261

00:13:16,800 --> 00:13:18,960

Our 90-degree barrel worked perfectly.

262

00:13:18,960 --> 00:13:24,600

In fact, the bullet left this barrel traveling the exact same speed as it left the 45-degree

263

00:13:24,600 --> 00:13:25,600

barrel.

264

00:13:25,600 --> 00:13:27,840

Now I'm feeling real optimistic.

265

00:13:27,840 --> 00:13:32,040

On that note, we'll be right back after a short word from our sponsors.

266

00:13:32,040 --> 00:13:34,480

Come on down to Jamie's house of Ben barrels.

267

00:13:34,480 --> 00:13:37,040

We got a gun that'll shoot whatever you want.

268

00:13:37,040 --> 00:13:38,040

Duck hunt.

269

00:13:38,040 --> 00:13:39,040

Fishing.

270

00:13:39,040 --> 00:13:41,520

Heck, it'll shoot things you can't even see.

271

00:13:41,520 --> 00:13:45,480

Only \$19.95, curved ammo not included.

272

00:13:45,480 --> 00:13:46,480

Welcome back.

273

00:13:46,480 --> 00:13:51,040

We're testing the idea that a gun can suffer a bent barrel, yet still fire its bullets

274

00:13:51,040 --> 00:13:52,040

effectively.

275

00:13:52,040 --> 00:13:54,040

That is awesome.

276

00:13:54,040 --> 00:14:00,080

And boldened by these results, we went then to a 90-degree bend and found that it absolutely

277

00:14:00,080 --> 00:14:03,680

shoots with only 7% less energy than a straight barrel.

278

00:14:03,680 --> 00:14:05,760

You shot a gun around a corner.

279

00:14:05,760 --> 00:14:06,920

But this isn't enough for us.

280

00:14:06,920 --> 00:14:08,240

No, no, no, no.

281

00:14:08,240 --> 00:14:14,720

We now want to bend this barrel even further and find the limits of how effective a bent

282

00:14:14,720 --> 00:14:15,720

barrel can be.

283

00:14:15,920 --> 00:14:16,920

I'd say that's good.

284

00:14:16,920 --> 00:14:18,720

It's a nice, gentle bend.

285

00:14:18,720 --> 00:14:21,360

Or how bent an effective barrel can be.

286

00:14:21,360 --> 00:14:22,860

I guess both.

287

00:14:22,860 --> 00:14:24,360

135 degrees.

288

00:14:24,360 --> 00:14:26,520

That's a serious bend.

289

00:14:26,520 --> 00:14:33,840

Yep, with a muzzle facing a comical 135 degrees away from the barrel's base.

290

00:14:33,840 --> 00:14:35,440

I'm confused.

291

00:14:35,440 --> 00:14:38,880

If the bullet makes it out with lethal intent...

292

00:14:38,880 --> 00:14:39,880

Range is hot.

293

00:14:39,880 --> 00:14:44,480

...the myth will have exceeded even the most optimistic expectations.

294

00:14:44,720 --> 00:14:48,600

135 degree bent barrel in three, two, one.

295

00:14:51,080 --> 00:14:53,200

I saw the bugs jump.

296

00:14:53,200 --> 00:14:54,520

I guess I mean to come out.

297

00:14:54,520 --> 00:14:55,520

Whee.

298

00:14:55,520 --> 00:14:57,640

Came out, went in...

299

00:14:57,640 --> 00:15:01,760

Oh, it went all the way through the gel.

300

00:15:01,760 --> 00:15:05,840

And proving its deadly force came out again.

301

00:15:05,840 --> 00:15:07,080

That's astonishing to me.

302

00:15:07,080 --> 00:15:11,880

I thought that by the time we got to 135, it was going to be going halfway through.

303

00:15:11,880 --> 00:15:16,600

To remind you, with a straight barrel, the bullet was coming out at 1200 feet per second.

304

00:15:16,600 --> 00:15:22,720

Now with the barrel bent at 135 degrees, the bullet's coming out at 1050 feet per second.

305

00:15:22,720 --> 00:15:24,920

Now that's not a whole lot of reduction.

306

00:15:24,920 --> 00:15:26,440

Who would have thought it?

307

00:15:26,440 --> 00:15:33,360

According to an earlier prediction, not Jamie, question is, can the gun confound all expectations

308

00:15:33,360 --> 00:15:36,400

and go the full comedy curve?

309

00:15:36,400 --> 00:15:38,560

This barrel is going all the way.

310

00:15:38,560 --> 00:15:40,160

180 degrees.

311

00:15:40,160 --> 00:15:44,320

This gun that we're about to put together will shoot the guy who's holding it or someone

312

00:15:44,320 --> 00:15:46,320

standing behind him.

313

00:15:46,320 --> 00:15:49,320

Almost, almost there.

314

00:15:49,320 --> 00:15:51,320

That's it.

315

00:15:51,320 --> 00:15:53,320

Pretty nice, yeah.

316

00:15:53,320 --> 00:15:54,320

That's beautiful.

317

00:15:54,320 --> 00:15:56,320

Beautiful, sure.

318

00:15:56,320 --> 00:15:59,320

Absurd, without doubt.

319

00:15:59,320 --> 00:16:02,840

It's kind of handy.

320

00:16:02,840 --> 00:16:03,840

But will it be deadly?

321

00:16:04,720 --> 00:16:11,800

After witnessing the 45 degree bend, the 90 degree bend, and the 135 degree bend, I

322

00:16:11,800 --> 00:16:13,560

think this is going to work.

323

00:16:13,560 --> 00:16:18,000

I think a lethal bullet is going to exit this barrel when we fire it.

324

00:16:18,000 --> 00:16:20,200

And that's pretty amazing.

325

00:16:20,200 --> 00:16:25,800

Gun is hot, but let's find out.

326

00:16:25,800 --> 00:16:27,800

This is it for the money.

327

00:16:27,800 --> 00:16:29,400

Here we go.

328

00:16:29,400 --> 00:16:36,400

The gun that shoots its owner, 180 degree turn, and three, two, one.

329

00:16:36,400 --> 00:16:39,400

Nothing jumped.

330

00:16:39,400 --> 00:16:45,400

A lack of visible physical impact is not a great sign.

331

00:16:45,400 --> 00:16:48,400

Jamie, it went all the way through.

332

00:16:48,400 --> 00:16:52,400

Wow, who knew?

333

00:16:52,400 --> 00:16:58,960

This is now my officially new favorite artifact we have ever made on the show.

334

00:16:58,960 --> 00:16:59,960

That's excellent.

335

00:16:59,960 --> 00:17:02,840

I was optimistic, but now I'm speechless.

336

00:17:02,840 --> 00:17:04,840

This is amazing.

337

00:17:04,840 --> 00:17:08,960

So there you have it.

338

00:17:08,960 --> 00:17:11,440

This, I believe, is an awesome day's work.

339

00:17:11,440 --> 00:17:17,640

Four barrels bent at 45, 90, 135, and 180 degrees, with ballistic stealth showing all

340

00:17:17,640 --> 00:17:19,640

four of those shots being lethal.

341

00:17:19,640 --> 00:17:22,680

That is a completely astonishing result.

342

00:17:22,760 --> 00:17:29,920

To mention an unexpectedly confirmed and comical conclusion.

343

00:17:29,920 --> 00:17:30,920

Let's get out of here.

344

00:17:30,920 --> 00:17:33,200

I want to mount this on the wall of my office.

345

00:17:33,200 --> 00:17:35,920

Well, are we even allowed to transport that?

346

00:17:35,920 --> 00:17:38,760

Well, if it fits in the gun case.

347

00:17:38,760 --> 00:17:39,760

Fair enough.

348

00:17:39,760 --> 00:18:04,560

When you're slow on the draw, an innocuous everyday object might just save your life.

349

00:18:04,560 --> 00:18:11,960

But are the many life-saving urban myths the miraculous real deal or unrealistic rumor?

350

00:18:11,960 --> 00:18:14,960

Next up, has a wallet really got your backside covered?

351

00:18:14,960 --> 00:18:16,320

Oh, yeah, I've heard this one.

352

00:18:16,320 --> 00:18:21,280

A guy gets shot in the back pocket with a 9mm round, but the wallet stops it.

353

00:18:21,280 --> 00:18:22,280

That's it.

354

00:18:22,280 --> 00:18:23,280

Okay.

355

00:18:23,280 --> 00:18:24,280

All right.

356

00:18:24,280 --> 00:18:26,280

So, Carrie lines up with a myth-specified 9mm.

357

00:18:26,280 --> 00:18:29,400

All right, this is 9mm versus wallet.

358

00:18:29,400 --> 00:18:32,040

But what isn't known is what was in the wallet.

359

00:18:32,040 --> 00:18:35,760

So, we're going to shoot a regular wallet filled with credit cards and money.

360

00:18:35,760 --> 00:18:39,280

All right, shoot them in the butt.

361

00:18:39,280 --> 00:18:40,480

A fat cat wallet.

362

00:18:40,480 --> 00:18:43,120

How do you even get that in your pocket?

363

00:18:43,120 --> 00:18:52,560

And finally, a duct tape wallet because let's face it, we love duct tape.

364

00:18:52,560 --> 00:18:53,920

I think that's all of them.

365

00:18:53,920 --> 00:18:55,360

Let's go see which ones are bulletproof.

366

00:18:55,360 --> 00:18:57,320

Yep, the bulletproof proof.

367

00:18:57,320 --> 00:18:59,480

My shooting techs is in the pocket.

368

00:18:59,480 --> 00:19:01,480

The first step, regular.

369

00:19:01,480 --> 00:19:02,920

And that is clean through and through.

370

00:19:02,920 --> 00:19:05,400

All right, regular wallet, not bulletproof.

371

00:19:05,400 --> 00:19:06,400

No, busted.

372

00:19:06,400 --> 00:19:09,480

All right, here comes the fat wallet.

373

00:19:09,480 --> 00:19:16,080

Interance, exit, and it got shot a couple times and it didn't stop any of them.

374

00:19:16,080 --> 00:19:19,680

Let's try duct tape.

375

00:19:19,680 --> 00:19:20,680

Straight through the butt.

376

00:19:20,680 --> 00:19:22,160

Ooh, clean through.

377

00:19:22,160 --> 00:19:23,160

There's some fries there.

378

00:19:23,160 --> 00:19:25,880

Duct tape wallet, busted for the 9mm.

379

00:19:25,880 --> 00:19:26,880

They're all busted.

380

00:19:26,880 --> 00:19:32,040

Later on MythBusters.

381

00:19:32,040 --> 00:19:35,680

If you're an astronaut in the vacuum of space and you've got a handgun, can you even fire

382

00:19:35,680 --> 00:19:36,680

it?

383

00:19:36,680 --> 00:19:37,680

Ow!

384

00:19:37,680 --> 00:19:39,680

That's what we're going to find out.

385

00:19:39,680 --> 00:19:44,880

Ooh, alien blood.

386

00:19:44,880 --> 00:19:51,640

Sit down, strap in, and stand by.

387

00:19:51,640 --> 00:19:53,720

Bullet Bologna continues.

388

00:19:54,720 --> 00:19:58,160

All right, this one is a fan favorite, the shotgun spear.

389

00:19:58,160 --> 00:19:59,960

What do you mean from the movie, the gray?

390

00:19:59,960 --> 00:20:00,960

Yeah, yeah, yeah.

391

00:20:00,960 --> 00:20:03,000

There's a bunch of guys hanging out in the forest.

392

00:20:03,000 --> 00:20:04,920

There's wolves that want to make dinner out of them.

393

00:20:04,920 --> 00:20:08,000

They've got a bunch of ammunition, but nothing to shoot it with.

394

00:20:08,000 --> 00:20:10,880

Yes, and so what they do is sharpen some sticks.

395

00:20:10,880 --> 00:20:14,600

They harden the tips in a fire and then they duct tape them to the shotgun shells with

396

00:20:14,600 --> 00:20:16,880

the tip pointed at the primer.

397

00:20:16,880 --> 00:20:17,880

Big stick.

398

00:20:17,880 --> 00:20:21,320

Right, the idea is when the wolves come into the camp, they poke the stick, the shotgun

399

00:20:21,320 --> 00:20:22,320

shell goes off.

400

00:20:23,080 --> 00:20:25,320

Enduring the beast, then the animals take off running.

401

00:20:25,320 --> 00:20:28,840

All right, who wants wolf burgers?

402

00:20:28,840 --> 00:20:30,040

This should be a pretty simple plan.

403

00:20:30,040 --> 00:20:32,480

We copy their technique, see if it works.

404

00:20:32,480 --> 00:20:33,480

Boomstick.

405

00:20:33,480 --> 00:20:38,680

So, for the simple setup, it's down to the bomb range with a lifelike Lupine target

406

00:20:38,680 --> 00:20:42,560

and a movie accurate shotgun shell on a stick.

407

00:20:42,560 --> 00:20:44,560

That is one pretty wolf.

408

00:20:44,560 --> 00:20:47,920

Now, for this myth to be plausible, we need to see two things.

409

00:20:48,360 --> 00:20:52,720

One, we need to see the point of the stick actually fire off the shotgun shell, get

410

00:20:52,720 --> 00:20:53,720

ready for the pain.

411

00:20:53,720 --> 00:20:58,880

And two, we need to see some kind of damage that would cause a wolf to be repelled.

412

00:20:58,880 --> 00:21:00,760

My feeling is this isn't going to work.

413

00:21:00,760 --> 00:21:02,640

I would just poke at it with a stick.

414

00:21:02,640 --> 00:21:03,640

Do, do, doink.

415

00:21:03,640 --> 00:21:06,880

Kids, that's what you call forced perspective.

416

00:21:06,880 --> 00:21:07,960

How's that for science?

417

00:21:07,960 --> 00:21:12,680

For this definitely do not try at home myth, the blast shields are raised.

418

00:21:12,680 --> 00:21:14,280

That looks stable.

419

00:21:14,280 --> 00:21:16,800

With a boomstick shape hole to poke through.

420

00:21:16,800 --> 00:21:18,480

Well that ought to do it.

421

00:21:18,480 --> 00:21:21,000

Down for it.

422

00:21:21,000 --> 00:21:24,520

And Grant is all set to stick it to the pooch.

423

00:21:24,520 --> 00:21:29,360

You know, as much as I want these to work, I'm kind of rooting for the wolf.

424

00:21:29,360 --> 00:21:34,360

In three, two, one.

425

00:21:34,360 --> 00:21:39,880

A lot of anger, a lot of anger, not a lot of bang.

426

00:21:39,880 --> 00:21:46,280

Yep, a clean hit and the shotgun shell remains decidedly undetonated, but Carrie decides.

427

00:21:46,640 --> 00:21:48,640

In order.

428

00:21:48,640 --> 00:21:50,880

Grant just wasn't desperate enough.

429

00:21:50,880 --> 00:21:55,080

Okay, okay, imagine angry wolf coming to eat you.

430

00:21:55,080 --> 00:21:56,080

He wants to eat you.

431

00:21:56,080 --> 00:21:57,080

You're his dinner.

432

00:21:57,080 --> 00:21:58,080

Get him.

433

00:21:58,080 --> 00:22:02,880

Oh, that was a really good shot right to the chest.

434

00:22:02,880 --> 00:22:06,400

That was a solid hit.

435

00:22:06,400 --> 00:22:12,200

You can't get any better than that and still the shotgun shell didn't go off.

436

00:22:12,200 --> 00:22:14,080

It's time for Plan B.

437

00:22:14,200 --> 00:22:16,280

B for Back to the Shop.

438

00:22:16,280 --> 00:22:19,360

All right, I'm going to be trying something a little bit different.

439

00:22:19,360 --> 00:22:21,840

Now the primer of a shotgun shell is made of brass.

440

00:22:21,840 --> 00:22:25,080

Now normally to deform it you would use a steel firing pin.

441

00:22:25,080 --> 00:22:28,280

But for this myth, we need to use wood.

442

00:22:28,280 --> 00:22:33,440

Now brass has a Brunel hardness of 60, so we need a wood that is harder than that.

443

00:22:33,440 --> 00:22:36,080

I have to sharpen it using a steel grinder.

444

00:22:36,080 --> 00:22:37,680

What I have here is e-pay.

445

00:22:37,680 --> 00:22:39,280

Now this is a Brazilian hardwood.

446

00:22:39,280 --> 00:22:41,280

It has a Brunel hardness of 80.

447

00:22:41,480 --> 00:22:44,480

This is the hardest wood I've ever worked with.

448

00:22:45,480 --> 00:22:49,080

So this theoretically could be used as a firing pin.

449

00:22:49,080 --> 00:22:52,480

Back at the bomb range, Tori with his hardwood in hand.

450

00:22:52,480 --> 00:22:54,480

Oh yeah, it's my boomstick.

451

00:22:54,480 --> 00:22:55,980

It's to make it work.

452

00:22:55,980 --> 00:23:00,480

Attaches the shotgun shell to the spear and he's ready to fight for his life.

453

00:23:00,480 --> 00:23:03,480

All right, this is e-pay hardwood boomstick.

454

00:23:04,480 --> 00:23:09,480

In three, two, one.

455

00:23:09,480 --> 00:23:11,480

You hit it hard enough to break your stick.

456

00:23:11,480 --> 00:23:13,480

That was a good hit, man.

457

00:23:13,480 --> 00:23:15,480

A good hit, but still no fireworks.

458

00:23:15,480 --> 00:23:19,480

The primer's dead to it, but it wasn't enough to set off the shotgun shell.

459

00:23:19,480 --> 00:23:21,480

But the team isn't ready to give up just yet.

460

00:23:21,480 --> 00:23:25,480

In keeping with the MacGyver-like myth, they're going to improvise.

461

00:23:25,480 --> 00:23:29,480

So there's one last possible scenario that's in the realm of reality.

462

00:23:29,480 --> 00:23:34,480

Say they found a little sharp piece of metal or a screw or a nail or something from the plane.

463

00:23:34,480 --> 00:23:35,480

Ready to nail it?

464

00:23:35,480 --> 00:23:38,480

And then use that to try to hit the primer.

465

00:23:40,480 --> 00:23:43,480

Here we go. In three, two.

466

00:23:43,480 --> 00:23:45,480

It's kind of like playing pool.

467

00:23:45,480 --> 00:23:46,480

One.

468

00:23:46,480 --> 00:23:49,480

Woo!

469

00:23:49,480 --> 00:23:50,480

It worked!

470

00:23:50,480 --> 00:23:51,480

It worked!

471

00:23:51,480 --> 00:23:55,480

Just like it says on the tin, the boomstick went boom.

472

00:23:56,480 --> 00:23:58,480

Groovy.

473

00:23:58,480 --> 00:24:00,480

But did it do any damage?

474

00:24:00,480 --> 00:24:04,480

It didn't make it actually through the fake fur.

475

00:24:04,480 --> 00:24:08,480

Without the gun barrel to contain the blast, the energy disperses,

476

00:24:08,480 --> 00:24:11,480

and the ballistics gel is unscathed.

477

00:24:11,480 --> 00:24:17,480

So for protection from the pack, save time and stick to a pointy stick.

478

00:24:17,480 --> 00:24:20,480

I mean, if I had a choice, I would have gone with just the plain spear,

479

00:24:20,480 --> 00:24:22,480

because this is just going to make him angry.

480

00:24:22,480 --> 00:24:23,480

The spear might actually kill him.

481

00:24:23,480 --> 00:24:26,480

Spear's a great weapon. It's worked for thousands of years.

482

00:24:26,480 --> 00:24:28,480

Busted. Busted.

483

00:24:34,480 --> 00:24:36,480

Do not try what you're about to see at home.

484

00:24:36,480 --> 00:24:38,480

We're what you call experts.

485

00:24:42,480 --> 00:24:45,480

Next up, Adam and Jamie hit the ballistics bunker

486

00:24:45,480 --> 00:24:49,480

for a physics and fiction face-off in space.

487

00:24:52,480 --> 00:24:57,480

Dude, I think we should test how much of a deterrent that sound is.

488

00:24:57,480 --> 00:24:59,480

It's pretty distinctive.

489

00:24:59,480 --> 00:25:00,480

Totally.

490

00:25:00,480 --> 00:25:01,480

So what's next?

491

00:25:01,480 --> 00:25:05,480

Well, apparently it is impossible to fire a gun in space.

492

00:25:05,480 --> 00:25:06,480

You mean like in a vacuum?

493

00:25:06,480 --> 00:25:08,480

Exactly. I think we've got to test it.

494

00:25:08,480 --> 00:25:10,480

I've always wanted to go to space.

495

00:25:10,480 --> 00:25:14,480

Me too. Guns in space. What could possibly go wrong?

496

00:25:17,480 --> 00:25:20,480

Although Hollywood would have as believe otherwise,

497

00:25:20,480 --> 00:25:26,480

the prevailing theory is that a gun will fail to fire in space for two reasons.

498

00:25:27,480 --> 00:25:32,480

First, the lack of air and atmospheric pressure in the vacuum of space

499

00:25:32,480 --> 00:25:34,480

may cause the slug to deform.

500

00:25:34,480 --> 00:25:39,480

Second, without oxygen, the primer can't ignite the propellant.

501

00:25:39,480 --> 00:25:45,480

And to test these theories, Adam and Jamie need to fire a gun in space.

502

00:25:45,480 --> 00:25:47,480

Down here on Earth.

503

00:25:47,480 --> 00:25:48,480

That looks good.

504

00:25:48,480 --> 00:25:49,480

It's going to be beautiful.

505

00:25:49,480 --> 00:25:53,480

To do that, they're building a bulletproof vacuum chamber.

506

00:25:56,480 --> 00:25:58,480

And once Jamie inserts a pressure gauge,

507

00:25:58,480 --> 00:26:03,480

their soon-to-be-sealed chamber is ready to have all of its air removed.

508

00:26:03,480 --> 00:26:05,480

Every single atom.

509

00:26:05,480 --> 00:26:07,480

But first, a test fire.

510

00:26:07,480 --> 00:26:10,480

This is a real pistol and we're about to fire it in our shop.

511

00:26:10,480 --> 00:26:15,480

Now, setting up a gun to be fired by remote control is always fraught with some dangers.

512

00:26:15,480 --> 00:26:18,480

And we are removing those dangers in the following way.

513

00:26:18,480 --> 00:26:22,480

One, our entire vacuum chamber has made a bullet-resistant plastic.

514

00:26:22,480 --> 00:26:24,480

Two, we have an extra piece of bullet-resistant plastic

515

00:26:24,480 --> 00:26:26,480

at the end of this chamber for the bullet to land.

516

00:26:26,480 --> 00:26:30,480

And three, we're going to have a piece of steel behind that extra piece of bullet-resistant plastic.

517

00:26:30,480 --> 00:26:35,480

Four, our gun is mounted firmly in a gun rest meant to hold it.

518

00:26:35,480 --> 00:26:37,480

Five, we are only using one bullet.

519

00:26:37,480 --> 00:26:39,480

All right, Jamie, I'm ready to load. Are you ready?

520

00:26:39,480 --> 00:26:40,480

I'm ready.

521

00:26:40,480 --> 00:26:43,480

There's a couple of others, but they don't really matter.

522

00:26:43,480 --> 00:26:46,480

Before we pull the trigger on this gun in the vacuum,

523

00:26:46,480 --> 00:26:52,480

we're going to fire the gun in the vacuum chamber without a vacuum to be able to compare the two.

524

00:26:52,480 --> 00:26:56,480

In three, two, one.

525

00:27:04,480 --> 00:27:05,480

There it goes.

526

00:27:06,480 --> 00:27:07,480

That was a bang.

527

00:27:09,480 --> 00:27:11,480

Well, it seemed to work pretty well.

528

00:27:11,480 --> 00:27:12,480

Indeed.

529

00:27:12,480 --> 00:27:16,480

They've tested the remote firing mechanism, captured it on high speed,

530

00:27:16,480 --> 00:27:20,480

and have a slug impact on the backboard to compare.

531

00:27:21,480 --> 00:27:22,480

It's time to reload.

532

00:27:22,480 --> 00:27:23,480

Gun is hot.

533

00:27:24,480 --> 00:27:25,480

Range is hot.

534

00:27:25,480 --> 00:27:27,480

And suck some air.

535

00:27:27,480 --> 00:27:32,480

And Adam for one is confident that in this instance, Hollywood has it right.

536

00:27:32,480 --> 00:27:35,480

We're waiting for our vacuum chamber to come up to a full vacuum,

537

00:27:35,480 --> 00:27:37,480

and then we're going to pull the trigger on our revolver.

538

00:27:37,480 --> 00:27:39,480

And I am here to tell you that I think it's going to go bang.

539

00:27:39,480 --> 00:27:45,480

I don't think the vacuum is going to have any effect on the gun powder's ability to propel the bullet out the barrel of our revolver.

540

00:27:45,480 --> 00:27:49,480

This is it, with the chamber evacuated to a full vacuum.

541

00:27:49,480 --> 00:27:50,480

Are you ready?

542

00:27:50,480 --> 00:27:51,480

I'm ready.

543

00:27:51,480 --> 00:27:53,480

At Adam's remote finger on the trigger,

544

00:27:53,480 --> 00:27:54,480

All right, here we go.

545

00:27:54,480 --> 00:28:00,480

Will Hollywood have its day, or as the myth suggests, will the gun misfire?

546

00:28:00,480 --> 00:28:02,480

Fire the gun in a vacuum.

547

00:28:02,480 --> 00:28:05,480

Three, two, one.

548

00:28:11,480 --> 00:28:12,480

There it is.

549

00:28:12,480 --> 00:28:14,480

There it is, successfully shot.

550

00:28:14,480 --> 00:28:16,480

That gun fired in a vacuum.

551

00:28:16,480 --> 00:28:17,480

It did.

552

00:28:17,480 --> 00:28:20,480

The images are spectacular.

553

00:28:20,480 --> 00:28:22,480

Wow.

554

00:28:22,480 --> 00:28:25,480

And the details, fascinating.

555

00:28:25,480 --> 00:28:30,480

I swear, if I just saw this footage, I would totally believe that it was a special effect.

556

00:28:30,480 --> 00:28:31,480

It doesn't look real.

557

00:28:31,480 --> 00:28:32,480

Yeah.

558

00:28:32,480 --> 00:28:33,480

Amazing.

559

00:28:35,480 --> 00:28:38,480

But exactly what happened?

560

00:28:38,480 --> 00:28:42,480

Cue forensic duo doctors Heinemann and Savage.

561

00:28:42,480 --> 00:28:45,480

Now that we know a gun can fire in a vacuum, the question arises,

562

00:28:45,480 --> 00:28:48,480

does the bullet behave any differently in the vacuum than in the air?

563

00:28:48,480 --> 00:28:51,480

We might posit that the bullet would move slower in the air

564

00:28:51,480 --> 00:28:55,480

because the air provides resistance where the vacuum provides none.

565

00:28:55,480 --> 00:28:57,480

And in fact, we did find a very minor difference.

566

00:28:57,480 --> 00:29:02,480

The bullet in the air traveled 5% slower than its partner in the vacuum.

567

00:29:02,480 --> 00:29:07,480

That's not a big result, but it is also borne out in a tiny way

568

00:29:07,480 --> 00:29:10,480

by the bullets that we found embedded in the glass.

569

00:29:10,480 --> 00:29:14,480

The bullet in the vacuum made a slightly larger pressuring in the glass

570

00:29:14,480 --> 00:29:16,480

than the one in the air.

571

00:29:16,480 --> 00:29:20,480

It's a tiny difference, but an interesting one nonetheless.

572

00:29:21,480 --> 00:29:25,480

We chose a revolver for this test, and you'll notice in the high-speed footage

573

00:29:25,480 --> 00:29:28,480

that a fireball is created around the gun when it fires.

574

00:29:28,480 --> 00:29:31,480

Now that's because of the gases coming out of the cartridge to escape.

575

00:29:31,480 --> 00:29:35,480

If you look at the vacuum, that fireball is much, much larger.

576

00:29:35,480 --> 00:29:41,480

And that is because a gas when it's exposed to a vacuum is going to expand more.

577

00:29:41,480 --> 00:29:45,480

And that makes me think that if you had an explosion in space,

578

00:29:46,480 --> 00:29:49,480

like you've seen in countless sci-fi movies,

579

00:29:49,480 --> 00:29:55,480

that explosion would be much larger than it would be under normal atmospheric pressure.

580

00:29:57,480 --> 00:30:01,480

So, the myth that guns cannot be fired within the vacuum of space?

581

00:30:01,480 --> 00:30:02,480

It's totally busted.

582

00:30:02,480 --> 00:30:03,480

Yeah, it's busted.

583

00:30:03,480 --> 00:30:05,480

Let's move on to the next gun myth.

584

00:30:05,480 --> 00:30:06,480

Okay.

585

00:30:11,480 --> 00:30:15,480

Up next, Torey sets his sights on the lights.

586

00:30:18,480 --> 00:30:20,480

All right, Torey, see you brought us to the gun range.

587

00:30:20,480 --> 00:30:21,480

What's the myth?

588

00:30:21,480 --> 00:30:23,480

Now, you've seen this in so many Hollywood movies

589

00:30:23,480 --> 00:30:27,480

where somebody shoots out a neon sign and sparks go flying everywhere.

590

00:30:27,480 --> 00:30:28,480

Yeah, just like this.

591

00:30:29,480 --> 00:30:30,480

Oh!

592

00:30:30,480 --> 00:30:32,480

All right, so that was pretty Hollywood.

593

00:30:32,480 --> 00:30:34,480

Good old special effects.

594

00:30:34,480 --> 00:30:36,480

I think we're going to have to make some more neon signs.

595

00:30:36,480 --> 00:30:37,480

We're going to test this one for real.

596

00:30:37,480 --> 00:30:40,480

And get some real guns and then we can shoot them.

597

00:30:40,480 --> 00:30:41,480

This is going to be awesome.

598

00:30:45,480 --> 00:30:51,480

A Hollywood downtown showdown wouldn't be complete without obligatory neon sign fireworks.

599

00:30:51,480 --> 00:30:54,480

But is this light show a complete fiction?

600

00:30:54,480 --> 00:30:59,480

With it really fizz and spark without special effects fakery.

601

00:30:59,480 --> 00:31:05,480

Now, the way they create sparks in the movies is by using a paintball gun and a paintball round

602

00:31:05,480 --> 00:31:08,480

that has zirconium and an abrasive substance.

603

00:31:08,480 --> 00:31:11,480

When they fire through the gun and it hits its target, it creates a spark.

604

00:31:11,480 --> 00:31:15,480

But we're going to see if we can create a spark without the help of special effects.

605

00:31:16,480 --> 00:31:22,480

So, first up, Carrie goes into the light store for a little light learning.

606

00:31:22,480 --> 00:31:23,480

This is Shana.

607

00:31:23,480 --> 00:31:25,480

She's going to help me make a neon sign.

608

00:31:25,480 --> 00:31:28,480

Now, a neon light is not that different from a fluorescent tube.

609

00:31:28,480 --> 00:31:29,480

Woo!

610

00:31:29,480 --> 00:31:30,480

You ready?

611

00:31:30,480 --> 00:31:31,480

I think so.

612

00:31:31,480 --> 00:31:38,480

A neon light uses high voltage to propel a current through a tube that's filled with low pressure noble gases,

613

00:31:38,480 --> 00:31:41,480

like neon, which gives us that sort of orangish red glow.

614

00:31:41,480 --> 00:31:44,480

Different gases will give you different colors of light.

615

00:31:44,480 --> 00:31:46,480

Oh my God, I love this.

616

00:31:46,480 --> 00:31:48,480

This is so cool.

617

00:31:48,480 --> 00:31:50,480

Yep, it's physics fireworks.

618

00:31:50,480 --> 00:31:56,480

High voltage causes electrons to flow through the tube, bombarding the gas atoms.

619

00:31:56,480 --> 00:31:59,480

The resulting energy is given off in the form of light,

620

00:31:59,480 --> 00:32:04,480

and the color or wavelength of that light is specific to the gas in the tube.

621

00:32:06,480 --> 00:32:07,480

It's gorgeous.

622

00:32:07,480 --> 00:32:17,480

And with her two-themed neon signs sealed, Carrie delivers them to a familiar and warranty-voining location, the gun range.

623

00:32:18,480 --> 00:32:22,480

Are you guys ready for this neon sign versus nine millimeter handguns?

624

00:32:22,480 --> 00:32:24,480

Let's see if it sparks.

625

00:32:25,480 --> 00:32:26,480

In three.

626

00:32:26,480 --> 00:32:30,480

So will the combination of high voltage vacuum sealed neon gas,

627

00:32:30,480 --> 00:32:31,480

Two.

628

00:32:31,480 --> 00:32:35,480

and live ammo provide the spark the myth requires?

629

00:32:35,480 --> 00:32:36,480

One.

630

00:32:38,480 --> 00:32:39,480

Eh, no.

631

00:32:39,480 --> 00:32:42,480

Well, we hit it, but no sparks like Hollywood.

632

00:32:42,480 --> 00:32:45,480

No, it's absolutely nothing like the movie.

633

00:32:45,480 --> 00:32:46,480

A result?

634

00:32:47,480 --> 00:32:48,480

Shaka.

635

00:32:48,480 --> 00:32:50,480

That's double busted.

636

00:32:51,480 --> 00:32:53,480

It's for science.

637

00:32:53,480 --> 00:32:55,480

When the guys pull out the big guns.

638

00:32:55,480 --> 00:32:56,480

Alright, we're hot.

639

00:32:56,480 --> 00:32:58,480

In three, two, one.

640

00:33:00,480 --> 00:33:01,480

Get the...

641

00:33:01,480 --> 00:33:02,480

Woo.

642

00:33:02,480 --> 00:33:05,480

Alright, it doesn't matter if you have a shotgun or pistol, you fired a neon sign,

643

00:33:05,480 --> 00:33:08,480

you're not gonna get the sparks that you get in a Hollywood movie.

644

00:33:09,480 --> 00:33:11,480

Coming up on MythBusters.

645

00:33:11,480 --> 00:33:12,480

There it goes.

646

00:33:12,480 --> 00:33:15,480

If you can't stand the heat, don't fry guns in the kitchen.

647

00:33:15,480 --> 00:33:17,480

Let's go eat some gun.

648

00:33:22,480 --> 00:33:26,480

To give their neon nightmare one last shot.

649

00:33:26,480 --> 00:33:29,480

We're gonna have to do something a little more myth buster-y.

650

00:33:29,480 --> 00:33:34,480

Carrie Grant and Tori filled a new sign with highly flammable hydrogen.

651

00:33:34,480 --> 00:33:37,480

And lit it with the worst firing job possible.

652

00:33:39,480 --> 00:33:42,480

That's right, I've created several Jacob's letters,

653

00:33:42,480 --> 00:33:45,480

which are just basically traveling arcs.

654

00:33:45,480 --> 00:33:46,480

Alright, we are hot.

655

00:33:46,480 --> 00:33:49,480

12,000 volts each, there are three of them.

656

00:33:49,480 --> 00:33:50,480

In three?

657

00:33:50,480 --> 00:33:52,480

36,000 volts.

658

00:33:52,480 --> 00:33:53,480

Two.

659

00:33:53,480 --> 00:33:56,480

If anything is going to ignite that flammable gas.

660

00:33:56,480 --> 00:33:57,480

One.

661

00:33:57,480 --> 00:33:58,480

This is it.

662

00:33:58,480 --> 00:34:03,480

Despite the enriched set of circumstances, not one single spark sparked.

663

00:34:03,480 --> 00:34:07,480

I know why they do it this way in the movies, with all the sparks in the plane,

664

00:34:07,480 --> 00:34:09,480

because in real life, it's boring.

665

00:34:09,480 --> 00:34:12,480

You shoot a tube and the tube just goes out.

666

00:34:12,480 --> 00:34:13,480

But you know what?

667

00:34:13,480 --> 00:34:14,480

That's okay.

668

00:34:14,480 --> 00:34:18,480

Hollywood, you keep doing what you do, and we'll keep busting the myths.

669

00:34:28,480 --> 00:34:34,480

For the final round in the Bullet Bologna Chamber comes a myth best served hot.

670

00:34:36,480 --> 00:34:40,480

Okay, we got a story about a guy running from the police through the back kitchen of a restaurant,

671

00:34:40,480 --> 00:34:43,480

when he decides to ditch his gun into a hot deep fryer.

672

00:34:43,480 --> 00:34:45,480

Don't tell me it goes off.

673

00:34:45,480 --> 00:34:46,480

Exactly.

674

00:34:46,480 --> 00:34:48,480

I think we need to deep fry some guns to find out.

675

00:34:48,480 --> 00:34:50,480

Sounds tasty.

676

00:34:50,480 --> 00:34:56,480

For a not so lucky fleeing fugitive, this fast-fuelled firearm fable

677

00:34:56,480 --> 00:34:58,480

is a high-calorie catastrophe.

678

00:34:58,480 --> 00:35:07,480

But Adam and Janey want to know if a gun firing in a fryer is a high-fat fact or deep-fried fiction.

679

00:35:07,480 --> 00:35:11,480

To find out, they've hit the bomb range for a fryer fight.

680

00:35:11,480 --> 00:35:12,480

Ready for some deep-fried guns?

681

00:35:12,480 --> 00:35:13,480

You betcha.

682

00:35:13,480 --> 00:35:14,480

I'm hungry.

683

00:35:16,480 --> 00:35:20,480

When you want to shoot a gun in controlled conditions, as we've done countless times on the show,

684

00:35:21,480 --> 00:35:24,480

in general, you go to a shooting range.

685

00:35:24,480 --> 00:35:32,480

But when you want to shoot off a gun in uncontrolled conditions, i.e. dropping one in a vat of boiling oil,

686

00:35:32,480 --> 00:35:35,480

well, then you want a place that's a little more remote.

687

00:35:35,480 --> 00:35:39,480

And that's why we've come to this, the Yolo County Bomb Range in Davis, California.

688

00:35:39,480 --> 00:35:42,480

They've got a shooting range with a very wide exclusion zone.

689

00:35:42,480 --> 00:35:45,480

That means we can conduct our experiments safely here.

690

00:35:45,480 --> 00:35:48,480

And as experiments go, that's good.

691

00:35:48,480 --> 00:35:50,480

This one's as simple as it gets.

692

00:35:50,480 --> 00:35:52,480

A deep fryer.

693

00:35:52,480 --> 00:35:55,480

Ah, not pretty.

694

00:35:55,480 --> 00:35:57,480

A 9mm handgun.

695

00:35:59,480 --> 00:36:00,480

Perfect.

696

00:36:00,480 --> 00:36:02,480

And soon to be hot oil.

697

00:36:04,480 --> 00:36:09,480

So the major components of this experiment are pretty straightforward, and they're all right in front of you.

698

00:36:09,480 --> 00:36:13,480

We've got a 1-foot cube made of steel that holds 8 gallons of canola oil.

699

00:36:13,480 --> 00:36:20,480

We've got a pistol mounted solidly in a machine rest on a slider that allows us to safely and carefully lower it down into the oil.

700

00:36:20,480 --> 00:36:24,480

Which will be heated up to frying temperature with my propane torch.

701

00:36:24,480 --> 00:36:28,480

As everyone knows, it's vital when deep frying to know the exact temperature of your fry oil.

702

00:36:28,480 --> 00:36:33,480

And we will know that using this thermocouple, whose wire travels all the way back.

703

00:36:33,480 --> 00:36:38,480

Behind these blast shields, where we'll monitor everything in perfect safety.

704

00:36:38,480 --> 00:36:39,480

How'd you get here so quick?

705

00:36:39,480 --> 00:36:40,480

Move your magic.

706

00:36:40,480 --> 00:36:41,480

You ready?

707

00:36:41,480 --> 00:36:42,480

Yeah.

708

00:36:42,480 --> 00:36:43,480

All right.

709

00:36:43,480 --> 00:36:45,480

It's time to get down to business.

710

00:36:45,480 --> 00:36:50,480

And the job at hand is cooking a loaded gun to see if it will fire in the fryer.

711

00:36:50,480 --> 00:36:54,480

Now there are many different temperatures that restaurants keep their fry oil at.

712

00:36:54,480 --> 00:36:59,480

But at the top end, it's about 390, just shy of 400 degrees.

713

00:36:59,480 --> 00:37:00,480

So now we wait.

714

00:37:00,480 --> 00:37:02,480

That's hot oil.

715

00:37:02,480 --> 00:37:05,480

That's the temperature we're going to be looking for to drop our gun.

716

00:37:05,480 --> 00:37:09,480

And temperature is the key to the whole shooting match.

717

00:37:09,480 --> 00:37:12,480

Way back when the guys baked bullets.

718

00:37:12,480 --> 00:37:13,480

Hot bullets!

719

00:37:13,480 --> 00:37:16,480

Get your hot bullets here!

720

00:37:16,480 --> 00:37:20,480

They found the heat from an oven could get a gun to go back.

721

00:37:20,480 --> 00:37:25,480

But now the question is, will the wet oil dampen that detonation?

722

00:37:25,480 --> 00:37:26,480

All right.

723

00:37:26,480 --> 00:37:27,480

That's 390.

724

00:37:27,480 --> 00:37:29,480

I'm going to shut off the gas.

725

00:37:29,480 --> 00:37:30,480

All right.

726

00:37:30,480 --> 00:37:31,480

The gun's free.

727

00:37:31,480 --> 00:37:32,480

You ready to lower?

728

00:37:32,480 --> 00:37:36,480

I really feel strongly that the moment we lower that gun in there, it's going to go bang.

729

00:37:36,480 --> 00:37:37,480

All right.

730

00:37:37,480 --> 00:37:38,480

Dropping a gun into hot oil.

731

00:37:38,480 --> 00:37:42,480

I don't think it's going to take much more than 10 or 15 seconds.

732

00:37:42,480 --> 00:37:44,480

Three, two, one.

733

00:37:44,480 --> 00:37:46,480

There it goes.

734

00:37:46,480 --> 00:37:49,480

There it goes.

735

00:37:49,480 --> 00:37:51,480

And there it doesn't.

736

00:37:51,480 --> 00:37:54,480

The range is most definitely hot.

737

00:37:54,480 --> 00:37:56,480

That heat's working its way towards the bullet.

738

00:37:56,480 --> 00:38:00,480

But the gun is clearly not fast food.

739

00:38:00,480 --> 00:38:03,480

I was thinking it would go in the first 15 seconds.

740

00:38:03,480 --> 00:38:07,480

And as 30 seconds rolls into several minutes.

741

00:38:07,480 --> 00:38:09,480

Come on, do something.

742

00:38:09,480 --> 00:38:14,480

Confidence that the myth will go off with a bang has cooled.

743

00:38:14,480 --> 00:38:16,480

You sure there's a bullet in there, right?

744

00:38:16,480 --> 00:38:18,480

I'm sure there is.

745

00:38:18,480 --> 00:38:20,480

There it is.

746

00:38:20,480 --> 00:38:22,480

Awesome.

747

00:38:22,480 --> 00:38:23,480

That worked.

748

00:38:23,480 --> 00:38:25,480

Very well done.

749

00:38:25,480 --> 00:38:27,480

Let's go eat some gun.

750

00:38:27,480 --> 00:38:32,480

Dinner is served.

751

00:38:32,480 --> 00:38:37,480

Once again, proving that heat, ammunition are dangerous ingredients in the kitchen.

752

00:38:37,480 --> 00:38:45,480

Well, I just hope this goes to show you kids who like to play it fast and loose with a deep fryer that this, plus this, do not make for a tasty meal.

753

00:38:45,480 --> 00:38:46,480

Oh, no.

754

00:38:46,480 --> 00:38:52,480

You got to be careful when you bring guns around the food processes because you don't want to get shot in the fish and chips if you know what I mean.

755

00:38:52,480 --> 00:38:54,480

I'm not even sure what I mean.

756

00:38:54,480 --> 00:38:59,480

What Adam actually means is the gun went off real sweet, just like the myth.

757

00:38:59,480 --> 00:39:01,480

But they're not done yet.

758

00:39:01,480 --> 00:39:04,480

They're going again and this time they're starting cold.

759

00:39:04,480 --> 00:39:12,480

So our gun went off in the vat of boiling oil, but that begs the question, what's the lower temperature threshold for setting off a gun?

760

00:39:12,480 --> 00:39:14,480

So that's what we're going to figure out.

761

00:39:14,480 --> 00:39:18,480

We're going to refill this tank with some cold oil, lowering it in.

762

00:39:18,480 --> 00:39:24,480

And heat that oil until the gun goes off.

763

00:39:24,480 --> 00:39:26,480

It's all information at this point.

764

00:39:29,480 --> 00:39:30,480

So what are we up to?

765

00:39:30,480 --> 00:39:33,480

Just over 160, climbing steadily.

766

00:39:33,480 --> 00:39:41,480

You know, waiting for things to go off like that while you're feeding them up slowly, waiting for a failure point is always nerve-wracking.

767

00:39:41,480 --> 00:39:42,480

This is no exception.

768

00:39:42,480 --> 00:39:45,480

Well, we're up to about 260 degrees.

769

00:39:45,480 --> 00:39:47,480

Got a long ways to go.

770

00:39:47,480 --> 00:39:51,480

We're sitting there passing the time as the temperature is climbing slowly.

771

00:39:51,480 --> 00:39:57,480

So at the point it's rounding 300, we're kind of feeling a little bit bored and lax.

772

00:39:57,480 --> 00:39:59,480

So what's your favorite fried food?

773

00:39:59,480 --> 00:40:01,480

Fish and chips.

774

00:40:01,480 --> 00:40:02,480

Fish and chips?

775

00:40:02,480 --> 00:40:03,480

When they're done right.

776

00:40:03,480 --> 00:40:06,480

Not really paying close attention, but just keeping tabs on it.

777

00:40:06,480 --> 00:40:12,480

Then, around 340, we know that we're in the zone and I literally was in the middle of saying to Damien,

778

00:40:12,480 --> 00:40:15,480

all right, I guess we better start paying attention.

779

00:40:15,480 --> 00:40:16,480

Whoa!

780

00:40:16,480 --> 00:40:18,480

It totally just went...

781

00:40:18,480 --> 00:40:20,480

What temperature was it?

782

00:40:20,480 --> 00:40:23,480

It was right around 344 degrees.

783

00:40:23,480 --> 00:40:30,480

This is a rare time when the experiment happened long before we expected it to happen.

784

00:40:30,480 --> 00:40:32,480

Wow, that's lower than I thought it'd be.

785

00:40:32,480 --> 00:40:34,480

Me too.

786

00:40:34,480 --> 00:40:36,480

It was surprising.

787

00:40:37,480 --> 00:40:44,480

But with two successful fryer firings, what's not surprising is the result.

788

00:40:44,480 --> 00:40:47,480

So I knew this was probably a little obvious, but it's time to call it.

789

00:40:47,480 --> 00:40:49,480

We don't need to call anything.

790

00:40:49,480 --> 00:40:50,480

Just drop that sign on the ground.

791

00:40:50,480 --> 00:40:52,480

The camera guy will take care of the rest.

792

00:40:52,480 --> 00:40:54,480

All right, here we go.

793

00:40:56,480 --> 00:40:58,480

Why do we always park on the other side of the hill?

794

00:40:58,480 --> 00:41:00,480

I don't know, it's stupid.