



1
00:00:24,490 --> 00:00:05,660

[Music]

2
00:00:29,840 --> 00:00:27,500

hello and welcome to the show on Martin

3
00:00:32,990 --> 00:00:29,850

Willis your host and we have another

4
00:00:34,760 --> 00:00:33,000

pre-recorded show for you this week

5
00:00:37,630 --> 00:00:34,770

actually we have two so I'm gonna

6
00:00:40,790 --> 00:00:37,640

explain that I did two one-hour

7
00:00:43,760 --> 00:00:40,800

face-to-face interviews at the UFO

8
00:00:45,799 --> 00:00:43,770

Congress and I was gonna run them as one

9
00:00:48,410 --> 00:00:45,809

two-hour show and then I said what the

10
00:00:50,330 --> 00:00:48,420

heck on YouTube the same person that may

11
00:00:52,549 --> 00:00:50,340

want to watch one may not want to watch

12
00:00:56,180 --> 00:00:52,559

the other so we split him in two

13
00:00:59,540 --> 00:00:56,190

and so this guest on this show is Bill

14

00:01:02,619 --> 00:00:59,550

burns you may know him from the UFO

15

00:01:05,240 --> 00:01:02,629

Hunters great guy highly intelligent

16

00:01:10,850 --> 00:01:05,250

funny and all that and he's going to be

17

00:01:13,250 --> 00:01:10,860

talking about Edison vs. Tesla and try I

18

00:01:15,469 --> 00:01:13,260

try to engage with them as as best I

19

00:01:18,340 --> 00:01:15,479

know about Tesla it's a great show I

20

00:01:20,930 --> 00:01:18,350

hope you sit back and enjoy it and

21

00:01:23,090 --> 00:01:20,940

anyone can support the show even right

22

00:01:25,460 --> 00:01:23,100

here in YouTube all you have to do is go

23

00:01:28,220 --> 00:01:25,470

to podcast UFO calm and for two dollars

24

00:01:30,040 --> 00:01:28,230

or more a month you can help us out and

25

00:01:33,200 --> 00:01:30,050

there's a link down in the text below

26

00:01:37,220 --> 00:01:33,210

thanks so much sit back and enjoy the

27

00:01:39,310 --> 00:01:37,230

show bill birnes welcome to the show oh

28

00:01:44,240 --> 00:01:39,320

thank you thank you Morty and you know

29

00:01:47,030 --> 00:01:44,250

you were the episode two and I I have a

30

00:01:48,620 --> 00:01:47,040

lot of affinity for anyone that took a

31

00:01:51,710 --> 00:01:48,630

chance to be on my show near the

32

00:01:53,750 --> 00:01:51,720

beginning because I was a nobody I still

33

00:01:56,750 --> 00:01:53,760

am but I mean I was more of a nobody

34

00:01:59,780 --> 00:01:56,760

just someone asking you want and you

35

00:02:02,750 --> 00:01:59,790

came on and that here's the deal anybody

36

00:02:05,450 --> 00:02:02,760

who wants to talk about UFOs or

37

00:02:07,280 --> 00:02:05,460

alternative history or anomalous

38

00:02:09,559 --> 00:02:07,290

theories or things that nobody else

39

00:02:12,020 --> 00:02:09,569

wants to talk about I'm all in favor of

40

00:02:14,660 --> 00:02:12,030

that because quite frankly you turn the

41

00:02:18,740 --> 00:02:14,670

news on on television and all you get is

42

00:02:22,820 --> 00:02:18,750

this bladder of this is the party line

43

00:02:25,820 --> 00:02:22,830

whether it's red blue red green whatever

44

00:02:27,470 --> 00:02:25,830

it's the party line and we're going to

45

00:02:29,750 --> 00:02:27,480

pump this information into you and

46

00:02:32,239 --> 00:02:29,760

somebody who has the courage in the

47

00:02:34,280 --> 00:02:32,249

backbone to go on the air and say look I

48

00:02:35,839 --> 00:02:34,290

don't care what you think I'm going to

49

00:02:38,599 --> 00:02:35,849

talk to people whose view

50

00:02:40,819 --> 00:02:38,609

aren't in the public domain whose views

51
00:02:42,860 --> 00:02:40,829
aren't out there and they may have crazy

52
00:02:45,319 --> 00:02:42,870
views and nobody says you have to agree

53
00:02:47,360 --> 00:02:45,329
with them but you know what it's there

54
00:02:49,160 --> 00:02:47,370
you want to listen to it here it is so I

55
00:02:51,080 --> 00:02:49,170
said hey Morty if that's what you're

56
00:02:53,690 --> 00:02:51,090
gonna do then I'm with you yeah that's

57
00:02:57,470 --> 00:02:53,700
awesome awesome so today I'd like to

58
00:02:58,970 --> 00:02:57,480
talk about I know you wrote about Tesla

59
00:03:00,589 --> 00:02:58,980
vs. Edison or something along those

60
00:03:03,830 --> 00:03:00,599
lines what was the title of that book

61
00:03:06,110 --> 00:03:03,840
was Edison vs. Tesla the battle over

62
00:03:08,229 --> 00:03:06,120
their last invention and it's funny that

63
00:03:10,429 --> 00:03:08,239

you bring that up because that's exactly

64

00:03:14,209 --> 00:03:10,439

what we're talking about when it comes

65

00:03:17,330 --> 00:03:14,219

to history that nobody deals with

66

00:03:20,599 --> 00:03:17,340

because it's been buried what they were

67

00:03:22,000 --> 00:03:20,609

battling over those two geniuses and

68

00:03:26,330 --> 00:03:22,010

here's the funny part about it

69

00:03:28,580 --> 00:03:26,340

both inventors both engineers both but

70

00:03:32,209 --> 00:03:28,590

both electronics engineers brilliant men

71

00:03:35,569 --> 00:03:32,219

both of them were bitter bitter rivals

72

00:03:39,319 --> 00:03:35,579

they hated each other and I can tell you

73

00:03:44,420 --> 00:03:39,329

why but they hated each other they both

74

00:03:47,809 --> 00:03:44,430

were awarded the Nobel Prize in Physics

75

00:03:50,689 --> 00:03:47,819

to share the Nobel Prize they hated each

76

00:03:53,300 --> 00:03:50,699

other so much neither one of them wanted

77

00:03:56,420 --> 00:03:53,310

the Nobel Prize because they didn't want

78

00:03:59,569 --> 00:03:56,430

the other guy to share it oh my god yeah

79

00:04:03,349 --> 00:03:59,579

yeah no I I did I have followed a little

80

00:04:05,330 --> 00:04:03,359

bit of that Tesla really is really

81

00:04:06,199 --> 00:04:05,340

fascinating to me I know Edison again as

82

00:04:08,569 --> 00:04:06,209

a genius

83

00:04:10,939 --> 00:04:08,579

Tesla more so because you know I never

84

00:04:13,550 --> 00:04:10,949

really heard about Tesla during my

85

00:04:16,960 --> 00:04:13,560

lifetime until I would say the last 15

86

00:04:21,640 --> 00:04:16,970

maybe 20 years there's a reason for that

87

00:04:24,260 --> 00:04:21,650

history has a way of burying what's

88

00:04:27,379 --> 00:04:24,270

inconvenient and pumping up what's

89

00:04:29,659 --> 00:04:27,389

convenient I mean for example I'll just

90

00:04:34,129 --> 00:04:29,669

give you a quick example I not to sound

91

00:04:35,540 --> 00:04:34,139

too academic when I say to you King

92

00:04:38,870 --> 00:04:35,550

Richard the third what do you think

93

00:04:41,740 --> 00:04:38,880

about what a match raising right yeah

94

00:04:44,300 --> 00:04:41,750

Richard this third was a wonderful King

95

00:04:47,600 --> 00:04:44,310

okay yes he may have had a hunchback

96

00:04:49,460 --> 00:04:47,610

they found his his grave and they found

97

00:04:52,280 --> 00:04:49,470

his body and he did have a hunchback but

98

00:04:54,500 --> 00:04:52,290

but still yet yes he was Machiavellian

99

00:04:56,720 --> 00:04:54,510

but the fact was Richard the third was

100

00:05:00,320 --> 00:04:56,730

not that bad a king I mean he was not an

101

00:05:02,990 --> 00:05:00,330

evil tyrant he was not he was not as he

102

00:05:06,740 --> 00:05:03,000

was portrayed to be by a Basil Rathbone

103

00:05:08,600 --> 00:05:06,750

he was not he was not that person I mean

104

00:05:13,220 --> 00:05:08,610

yes he was defeated the Battle of

105

00:05:15,590 --> 00:05:13,230

Monmouth by by Henry Tudor but still the

106

00:05:17,210 --> 00:05:15,600

fact is history the Hollinshead

107

00:05:18,020 --> 00:05:17,220

Chronicles and I can go into that but

108

00:05:20,510 --> 00:05:18,030

I'm not gonna do it

109

00:05:23,600 --> 00:05:20,520

the Hollinshead Chronicles portrayed him

110

00:05:25,250 --> 00:05:23,610

in a certain way why because the

111

00:05:27,230 --> 00:05:25,260

Hollenshead Chronicles that's how

112

00:05:29,780 --> 00:05:27,240

Shakespeare based his history plays the

113

00:05:32,900 --> 00:05:29,790

Hollenshead Chronicles were written

114

00:05:35,000 --> 00:05:32,910

under the auspice of Queen Elizabeth now

115

00:05:36,590 --> 00:05:35,010

for Queen Elizabeth to have done the

116

00:05:40,070 --> 00:05:36,600

honest truth about Richard the third

117

00:05:44,960 --> 00:05:40,080

whom her grandfather killed would have

118

00:05:48,860 --> 00:05:44,970

been to denigrate her own line to the

119

00:05:53,240 --> 00:05:48,870

throne because was really Queen Mary who

120

00:05:56,810 --> 00:05:53,250

was the rightful who was the rightful

121

00:05:58,280 --> 00:05:56,820

queen not Queen Elizabeth so the point

122

00:06:00,590 --> 00:05:58,290

that I'm trying to make is history

123

00:06:02,780 --> 00:06:00,600

determines what floats to the surface

124

00:06:04,640 --> 00:06:02,790

what children are gonna read in their

125

00:06:08,390 --> 00:06:04,650

schoolbooks what teachers are going to

126
00:06:10,700 --> 00:06:08,400
teach Edison became the genius who

127
00:06:14,810 --> 00:06:10,710
invented the 20th century in the 21st

128
00:06:17,719 --> 00:06:14,820
century even though it's Tesla we are

129
00:06:21,080 --> 00:06:17,729
sitting in a room with electric lights

130
00:06:23,719 --> 00:06:21,090
yeah because of Nikola Tesla alternating

131
00:06:27,469 --> 00:06:23,729
current yes yeah which he scratched out

132
00:06:29,090 --> 00:06:27,479
on in sand and a mistake or something

133
00:06:35,930 --> 00:06:29,100
like that I remember reading something

134
00:06:38,620 --> 00:06:35,940
about that Tesla realized that and this

135
00:06:43,550 --> 00:06:38,630
is this is standard when you if you're

136
00:06:47,350 --> 00:06:43,560
walking on level ground it takes one

137
00:06:50,810 --> 00:06:47,360
level of energy if you're walking uphill

138
00:06:53,120 --> 00:06:50,820

you have to expend more energy to walk

139

00:06:54,409 --> 00:06:53,130

up the hill that's the secret of

140

00:06:57,920 --> 00:06:54,419

alternating current

141

00:07:02,300 --> 00:06:57,930

so what's Hassler said was if instead of

142

00:07:06,830 --> 00:07:02,310

just having one electric motor

143

00:07:10,670 --> 00:07:06,840

one dynamo one core spinning through a

144

00:07:14,330 --> 00:07:10,680

magnetized coil generating power one way

145

00:07:17,120 --> 00:07:14,340

that's direct current that only travels

146

00:07:20,629 --> 00:07:17,130

for about a mile right and then it has

147

00:07:23,000 --> 00:07:20,639

to be boosted by a relay but what would

148

00:07:25,820 --> 00:07:23,010

happen if you were able to swing that

149

00:07:29,510 --> 00:07:25,830

coil from a positive pole to a negative

150

00:07:32,060 --> 00:07:29,520

pole that's swinging back and forth that

151
00:07:34,070 --> 00:07:32,070
creating all that potential in

152
00:07:37,159 --> 00:07:34,080
electricity it's called potential its

153
00:07:39,950 --> 00:07:37,169
power if you did that that would push

154
00:07:43,280 --> 00:07:39,960
the current along much faster so it's

155
00:07:46,520 --> 00:07:43,290
actually less expensive much less

156
00:07:48,220 --> 00:07:46,530
overhead to have current alternating

157
00:07:51,200 --> 00:07:48,230
between positively are driven by

158
00:07:54,350 --> 00:07:51,210
positive and negative then just have one

159
00:07:59,390 --> 00:07:54,360
direct current and so that was Tesla's

160
00:08:02,060 --> 00:07:59,400
theory Tesla had a kind of an ideogram

161
00:08:04,670 --> 00:08:02,070
Emery he was able to conceive of

162
00:08:06,860 --> 00:08:04,680
something in his mind and then translate

163
00:08:11,870 --> 00:08:06,870

what was in his mind onto a piece of

164

00:08:15,610 --> 00:08:11,880

paper onto sand onto anything that's how

165

00:08:18,080 --> 00:08:15,620

he created his inventions and so Tesla

166

00:08:20,150 --> 00:08:18,090

when he was a young engineer he was in

167

00:08:24,650 --> 00:08:20,160

Paris it was a young engineer

168

00:08:28,730 --> 00:08:24,660

he had this vision of this kind of

169

00:08:30,290 --> 00:08:28,740

Dynamo device that would swing a current

170

00:08:31,760 --> 00:08:30,300

back and forth between positive and

171

00:08:33,890 --> 00:08:31,770

negative then drive it further with

172

00:08:37,640 --> 00:08:33,900

greater potential with greater power and

173

00:08:40,820 --> 00:08:37,650

he said if I can only get this to my -

174

00:08:43,640 --> 00:08:40,830

to the master Thomas Edison he'll see

175

00:08:45,560 --> 00:08:43,650

the beauty of this and immediately he

176
00:08:49,390 --> 00:08:45,570
will license my invention and we'll both

177
00:08:52,790 --> 00:08:49,400
be millionaires well Tesla Edison

178
00:08:55,280 --> 00:08:52,800
besides being a great inventor and

179
00:08:59,260 --> 00:08:55,290
besides being a genius in his own right

180
00:09:02,829 --> 00:08:59,270
and a real entrepreneur aprender and

181
00:09:05,900 --> 00:09:02,839
over the years he became a corporate

182
00:09:09,290 --> 00:09:05,910
entrepreneur and as a corporate

183
00:09:11,540 --> 00:09:09,300
entrepreneur his investment was in

184
00:09:13,430 --> 00:09:11,550
direct current so yes he had a power

185
00:09:15,950 --> 00:09:13,440
station on Pearl Street in New York City

186
00:09:18,530 --> 00:09:15,960
and every

187
00:09:21,770 --> 00:09:18,540
mile or half mile or so he had a relay

188
00:09:24,380 --> 00:09:21,780

station to boost the power well he had

189

00:09:27,050 --> 00:09:24,390

invested so much money and his

190

00:09:29,660 --> 00:09:27,060

stockholders in General Electric had

191

00:09:33,530 --> 00:09:29,670

invested so much money that for him to

192

00:09:36,200 --> 00:09:33,540

completely redo his his own power grid

193

00:09:38,450 --> 00:09:36,210

would have been an enormous expense so

194

00:09:41,090 --> 00:09:38,460

he rejected Tesla out of hand right

195

00:09:42,470 --> 00:09:41,100

right um you talked to when we first

196

00:09:45,350 --> 00:09:42,480

started talking you mentioned the phrase

197

00:09:48,020 --> 00:09:45,360

alternate history let's say Tesla was

198

00:09:49,760 --> 00:09:48,030

never born how long do you think it

199

00:09:52,940 --> 00:09:49,770

would take for alternate energy to be

200

00:09:55,070 --> 00:09:52,950

discovered by some and what happened if

201
00:09:57,260 --> 00:09:55,080
it didn't and we had like power stations

202
00:10:00,770 --> 00:09:57,270
every half mile what about power

203
00:10:03,500 --> 00:10:00,780
stations every mile I mean once you have

204
00:10:05,810 --> 00:10:03,510
once you have a corporate structure in

205
00:10:08,510 --> 00:10:05,820
place and this of course is also part of

206
00:10:11,180 --> 00:10:08,520
the part of the issue in in in the book

207
00:10:12,950 --> 00:10:11,190
I wrote about how Edison at a certain

208
00:10:14,440 --> 00:10:12,960
point in his life and this goes back to

209
00:10:17,360 --> 00:10:14,450
the whole point of alternative history

210
00:10:20,960 --> 00:10:17,370
how Edison at a certain point in his

211
00:10:23,270 --> 00:10:20,970
life became corporatized he was not the

212
00:10:25,700 --> 00:10:23,280
young Tom Edison at his Telegraph

213
00:10:27,380 --> 00:10:25,710

machine the young Tom Edison you know

214

00:10:29,480 --> 00:10:27,390

stopping the railroad train from

215

00:10:31,610 --> 00:10:29,490

colliding with another this is a very

216

00:10:33,080 --> 00:10:31,620

different Thomas Edison he was a Thomas

217

00:10:36,620 --> 00:10:33,090

Edison who was friends with Harvey

218

00:10:39,160 --> 00:10:36,630

Firestone a friends with Henry Ford this

219

00:10:42,860 --> 00:10:39,170

was a Thomas Edison who was vested

220

00:10:45,560 --> 00:10:42,870

vested in his own inventions right so

221

00:10:48,200 --> 00:10:45,570

that would ever possibly it never would

222

00:10:50,420 --> 00:10:48,210

have changed wouldn't that be horrible I

223

00:10:51,500 --> 00:10:50,430

mean it was just so cost ineffective I

224

00:10:55,510 --> 00:10:51,510

mean exactly

225

00:10:59,600 --> 00:10:55,520

it just wouldn't go and work yeah but as

226

00:11:02,120 --> 00:10:59,610

a society that is exactly what we would

227

00:11:04,130 --> 00:11:02,130

have rocked and that's how we would be

228

00:11:06,890 --> 00:11:04,140

living today wouldn't that be something

229

00:11:09,380 --> 00:11:06,900

I mean we'd just be held back so far

230

00:11:11,030 --> 00:11:09,390

exactly who knows what else wouldn't

231

00:11:12,440 --> 00:11:11,040

have come along if it wasn't for Tesla

232

00:11:16,040 --> 00:11:12,450

how many patents did he have it was

233

00:11:18,080 --> 00:11:16,050

hundred something or literally thousands

234

00:11:23,060 --> 00:11:18,090

of patents what was it that it's true

235

00:11:27,660 --> 00:11:23,070

and and and Tesla's patents some of them

236

00:11:33,310 --> 00:11:27,670

were so wild for example

237

00:11:40,269 --> 00:11:33,320

great alternative history as Tesla let

238

00:11:43,150 --> 00:11:40,279

me just grab one thing sure so we're on

239

00:11:44,680 --> 00:11:43,160

with bill burns and we just he had just

240

00:11:46,870 --> 00:11:44,690

had to get a sip of water that I had

241

00:11:53,920 --> 00:11:46,880

against a board so here's the deal so

242

00:11:55,900 --> 00:11:53,930

Tesla after he financially broke up

243

00:11:59,140 --> 00:11:55,910

because he he was working for Edison

244

00:12:01,290 --> 00:11:59,150

right he was watering it out yes yeah so

245

00:12:06,510 --> 00:12:01,300

after they broke up

246

00:12:08,950 --> 00:12:06,520

Tesla came up with an idea for

247

00:12:11,140 --> 00:12:08,960

radio-controlled vessels

248

00:12:13,510 --> 00:12:11,150

radio-controlled boats for example

249

00:12:18,190 --> 00:12:13,520

amazing radio-controlled torpedos this

250

00:12:19,960 --> 00:12:18,200

is before World War one right so Tesla

251

00:12:24,519 --> 00:12:19,970

takes his plans for the radio-control

252

00:12:27,730 --> 00:12:24,529

torpedo to the naval war board because

253

00:12:31,870 --> 00:12:27,740

they're the ones buying inventions Tesla

254

00:12:33,940 --> 00:12:31,880

spent his life really scrambling for a

255

00:12:35,410 --> 00:12:33,950

buck I mean he was a millionaire and

256

00:12:38,560 --> 00:12:35,420

then lost it all but but that's how he

257

00:12:40,630 --> 00:12:38,570

spent his life angling for a buck just

258

00:12:43,060 --> 00:12:40,640

like all the rest of us trying to sell

259

00:12:45,600 --> 00:12:43,070

our stuff so he goes to the naval war

260

00:12:50,280 --> 00:12:45,610

board and he presents the idea for

261

00:12:52,960 --> 00:12:50,290

automated soldiers robots automated

262

00:12:54,550 --> 00:12:52,970

radio guided torpedoes now there was a

263

00:12:57,970 --> 00:12:54,560

problem with them we wouldn't get to in

264

00:13:01,329 --> 00:12:57,980

a second but automated ships automated

265

00:13:02,980 --> 00:13:01,339

vessels we have those today who's

266

00:13:07,500 --> 00:13:02,990

sitting on the naval war board as an

267

00:13:10,780 --> 00:13:07,510

advisor consultant thomas edison

268

00:13:15,610 --> 00:13:10,790

deep-six is everything oh now uh the

269

00:13:18,310 --> 00:13:15,620

problem the problem with Edison's radio

270

00:13:23,079 --> 00:13:18,320

guided weapon with Tesla's radio guided

271

00:13:26,260 --> 00:13:23,089

weapons it is very basic I mean do you

272

00:13:28,930 --> 00:13:26,270

remember the old CB radios yes okay so

273

00:13:30,519 --> 00:13:28,940

you write some 1-9 breaker 1-9 so you're

274

00:13:34,300 --> 00:13:30,529

on the CB radios breaker nine nine

275

00:13:39,100 --> 00:13:34,310

you're on the CB radios and somebody

276

00:13:41,050 --> 00:13:39,110

somewhere keys a mic and what happens it

277

00:13:44,050 --> 00:13:41,060

goes blank or

278

00:13:45,900 --> 00:13:44,060

static static yep right yeah that's the

279

00:13:48,220 --> 00:13:45,910

problem with the radio control torpedo

280

00:13:50,700 --> 00:13:48,230

sure you can have a radio-controlled

281

00:13:53,400 --> 00:13:50,710

torpedo but you've got a German u-boat

282

00:13:55,930 --> 00:13:53,410

sitting somewhere in the Atlantic and

283

00:13:57,820 --> 00:13:55,940

that German torpedo all they've got to

284

00:14:00,850 --> 00:13:57,830

do is find the right frequency of the

285

00:14:03,040 --> 00:14:00,860

radio-controlled torpedo basically jam

286

00:14:09,220 --> 00:14:03,050

it on the same frequency and it gets

287

00:14:12,160 --> 00:14:09,230

lost hmm along comes a composer named

288

00:14:15,760 --> 00:14:12,170

George Ann tile and along comes a movie

289

00:14:19,510 --> 00:14:15,770

star named Hedy Lamarr the beautiful

290

00:14:23,560 --> 00:14:19,520

bombshell Hedy Lamarr and together

291

00:14:26,350 --> 00:14:23,570

they say boy you know there's a problem

292

00:14:29,680 --> 00:14:26,360

with radio-controlled devices she was if

293

00:14:32,460 --> 00:14:29,690

you block the frequency then you're just

294

00:14:35,440 --> 00:14:32,470

gonna get static so here's what they do

295

00:14:38,680 --> 00:14:35,450

they invent something called spread

296

00:14:41,350 --> 00:14:38,690

spectrum technology in other words and

297

00:14:45,100 --> 00:14:41,360

this is the basis for things like a

298

00:14:48,400 --> 00:14:45,110

pretty good programs and a crypto emails

299

00:14:51,220 --> 00:14:48,410

if you have a code at one end on the

300

00:14:54,460 --> 00:14:51,230

transmission end and a receiver has the

301
00:14:58,120 --> 00:14:54,470
same code on the other end then you can

302
00:15:00,550 --> 00:14:58,130
encrypt that transmission and a third

303
00:15:02,860 --> 00:15:00,560
party trying to break it will never be

304
00:15:05,610 --> 00:15:02,870
able to interfere with it can't jam it

305
00:15:09,340 --> 00:15:05,620
so hedy lamarr I'm George and I'll

306
00:15:12,340 --> 00:15:09,350
invent a protocol where the frequencies

307
00:15:16,000 --> 00:15:12,350
switch and so the transmitting frequency

308
00:15:18,340 --> 00:15:16,010
and the receiving frequency are sharing

309
00:15:20,890 --> 00:15:18,350
that protocol for how the frequency will

310
00:15:24,579 --> 00:15:20,900
switch that's called spread spectrum

311
00:15:28,060 --> 00:15:24,589
technology and just let me show you what

312
00:15:32,460 --> 00:15:28,070
device uses that today you're the phone

313
00:15:35,860 --> 00:15:32,470

yeah yeah spread spectrum technology

314

00:15:37,870 --> 00:15:35,870

invented by the movie star Hedy Lamarr

315

00:15:41,650 --> 00:15:37,880

she was like a genius and in her own

316

00:15:43,870 --> 00:15:41,660

right absolute genius and and but now

317

00:15:45,970 --> 00:15:43,880

let's go back to the 1930s and 1940s

318

00:15:49,960 --> 00:15:45,980

she's an absolute genius

319

00:15:52,030 --> 00:15:49,970

she's a beautiful movie star and so

320

00:15:54,170 --> 00:15:52,040

nobody takes her seriously as an

321

00:15:56,360 --> 00:15:54,180

inventor big it's a shame

322

00:15:57,410 --> 00:15:56,370

it's hedy lamarr the movie store yeah

323

00:15:59,990 --> 00:15:57,420

hedy lamarr

324

00:16:02,420 --> 00:16:00,000

so that invention even though she

325

00:16:05,990 --> 00:16:02,430

patented that invention see she and

326

00:16:07,850 --> 00:16:06,000

George patented that invention never

327

00:16:10,670 --> 00:16:07,860

Bullitt by the Navy but didn't they use

328

00:16:11,560 --> 00:16:10,680

it eventually yes yeah and here's what

329

00:16:15,440 --> 00:16:11,570

happened

330

00:16:18,770 --> 00:16:15,450

Sylvania Repat ins what Hedy Lamarr

331

00:16:21,350 --> 00:16:18,780

invented and that invention was never

332

00:16:28,220 --> 00:16:21,360

used wasn't used in World War two was

333

00:16:30,830 --> 00:16:28,230

never used until its 1962 and a Soviet

334

00:16:34,550 --> 00:16:30,840

submarine is sitting off the coast of

335

00:16:36,280 --> 00:16:34,560

Cuba and an American submarine is also

336

00:16:39,110 --> 00:16:36,290

sitting off the coast of Cuba and that

337

00:16:41,060 --> 00:16:39,120

Soviet submarine this is during the

338

00:16:43,490 --> 00:16:41,070

blockade during the JFK blockade of Cuba

339

00:16:47,030 --> 00:16:43,500

during the Cuban Missile Crisis that

340

00:16:50,480 --> 00:16:47,040

Soviet submarine is a guided missile

341

00:16:54,170 --> 00:16:50,490

submarine and she opens her missile

342

00:16:56,960 --> 00:16:54,180

ports and she is set to go and the

343

00:16:59,720 --> 00:16:56,970

American submarine with Hedy Lamarr's

344

00:17:02,690 --> 00:16:59,730

invention of the spread spectrum

345

00:17:06,560 --> 00:17:02,700

technology radio-controlled torpedo is

346

00:17:11,120 --> 00:17:06,570

sitting a short space away waiting to

347

00:17:15,680 --> 00:17:11,130

fire that missile to subs silent deep

348

00:17:17,900 --> 00:17:15,690

and only one person prevents the Soviet

349

00:17:20,090 --> 00:17:17,910

submarine from launching a guided

350

00:17:23,930 --> 00:17:20,100

missile that is the Soviet weapons

351
00:17:26,750 --> 00:17:23,940
officer who says to his captain I am NOT

352
00:17:29,810 --> 00:17:26,760
going to be the person to launch a

353
00:17:32,420 --> 00:17:29,820
nuclear war that will destroy the planet

354
00:17:34,880 --> 00:17:32,430
and the Soviet sub never launches her

355
00:17:37,450 --> 00:17:34,890
missiles the American sub never fires

356
00:17:40,310 --> 00:17:37,460
her hedy lamarr invented

357
00:17:43,520 --> 00:17:40,320
radio-controlled torpedo and the Cuban

358
00:17:44,180 --> 00:17:43,530
Missile Crisis ends that's how close we

359
00:17:48,890 --> 00:17:44,190
came

360
00:17:51,620 --> 00:17:48,900
not hours not minutes but seconds and

361
00:17:53,900 --> 00:17:51,630
while all that's happening and I spoke

362
00:17:56,890 --> 00:17:53,910
to a pilot about this who was there well

363
00:17:59,510 --> 00:17:56,900

all that's happening a fleet of

364

00:18:01,700 --> 00:17:59,520

interceptors a squadron of interceptors

365

00:18:06,940 --> 00:18:01,710

from Edwards Air Force Base in

366

00:18:08,480 --> 00:18:06,950

California takes off with nuclear tipped

367

00:18:13,520 --> 00:18:08,490

anti-air to

368

00:18:16,690 --> 00:18:13,530

missiles in sy anti missiles anti

369

00:18:20,210 --> 00:18:16,700

missiles answer yes but their air-to-air

370

00:18:23,240 --> 00:18:20,220

it takes off from Edwards Air Force Base

371

00:18:27,169 --> 00:18:23,250

flying nuclear weapons over the

372

00:18:30,530 --> 00:18:27,179

northwestern United States out over the

373

00:18:36,049 --> 00:18:30,540

Bering Straits to the failsafe points

374

00:18:38,330 --> 00:18:36,059

right before the Soviet territory begins

375

00:18:41,150 --> 00:18:38,340

over the Bering Straits and goes into

376

00:18:44,590 --> 00:18:41,160

this great circle waiting for the Soviet

377

00:18:47,560 --> 00:18:44,600

bombers to come and that pilot told me

378

00:18:50,299 --> 00:18:47,570

that if those Soviet bombers had come

379

00:18:52,820 --> 00:18:50,309

even though we had nuclear tipped

380

00:18:57,250 --> 00:18:52,830

air-to-air missiles some would have

381

00:19:00,080 --> 00:18:57,260

gotten through and San Francisco Seattle

382

00:19:03,799 --> 00:19:00,090

Los Angeles would have been vaporized

383

00:19:06,799 --> 00:19:03,809

and they were waiting for the Soviet sub

384

00:19:09,530 --> 00:19:06,809

sitting off the coast of between Florida

385

00:19:12,110 --> 00:19:09,540

and Cuba waiting for that sub to fire

386

00:19:16,720 --> 00:19:12,120

its missiles that was how close the

387

00:19:19,700 --> 00:19:16,730

world came to a nuclear holocaust and

388

00:19:21,950 --> 00:19:19,710

one person also told me I'm Dick Morris

389

00:19:26,720 --> 00:19:21,960

told me this who was Bill Clinton's

390

00:19:29,120 --> 00:19:26,730

advisor Dick Morris told me that the one

391

00:19:32,960 --> 00:19:29,130

of the reasons that that never happened

392

00:19:35,960 --> 00:19:32,970

was that Nikita Khrushchev had lied to

393

00:19:39,169 --> 00:19:35,970

the Supreme Soviet he told his own

394

00:19:41,780 --> 00:19:39,179

Supreme Soviet that the Russians that

395

00:19:45,020 --> 00:19:41,790

the Soviet Union had intercontinental

396

00:19:46,610 --> 00:19:45,030

ballistic missiles they didn't they only

397

00:19:49,730 --> 00:19:46,620

had intermediate-range ballistic

398

00:19:53,690 --> 00:19:49,740

missiles and that's why Khrushchev

399

00:19:57,320 --> 00:19:53,700

blinked she amazing huh back to Tesla

400

00:19:59,030 --> 00:19:57,330

now he's was he hunk was it Hungarian he

401
00:20:02,120 --> 00:19:59,040
was Serbian Serbian okay

402
00:20:04,640 --> 00:20:02,130
so he moved here at a young age no money

403
00:20:06,650 --> 00:20:04,650
in his pocket really penniless but he

404
00:20:10,430 --> 00:20:06,660
also came here with a letter from

405
00:20:13,960 --> 00:20:10,440
someone it was sir it was a letter of

406
00:20:16,460 --> 00:20:13,970
introduction from his professor yeah

407
00:20:19,040 --> 00:20:16,470
introducing him to Thomas Edison and

408
00:20:21,799 --> 00:20:19,050
asking Thomas Edison to take this young

409
00:20:23,959 --> 00:20:21,809
man on as an apprentice

410
00:20:25,999 --> 00:20:23,969
because he was a genius and could help

411
00:20:30,529 --> 00:20:26,009
Edison and anything you wanted to do and

412
00:20:32,649 --> 00:20:30,539
so Edit I mean so Tesla had a task when

413
00:20:37,039 --> 00:20:32,659

he first got there which he completed

414

00:20:38,869 --> 00:20:37,049

and actually if I remember right he had

415

00:20:40,849 --> 00:20:38,879

something he was doing and then he was

416

00:20:42,080 --> 00:20:40,859

supposed to get a payment for it and he

417

00:20:43,639 --> 00:20:42,090

went to Edison for the payment and

418

00:20:45,859 --> 00:20:43,649

Edison kind of laughed it off sure

419

00:20:48,200 --> 00:20:45,869

because the power generators at the

420

00:20:51,589 --> 00:20:48,210

Pearl Street at the Pearl Street plant

421

00:20:55,070 --> 00:20:51,599

were failing and so Edison said to Tesla

422

00:21:00,200 --> 00:20:55,080

if you can fix these generators over the

423

00:21:04,279 --> 00:21:00,210

weekend I will sign a cheque give you a

424

00:21:07,549 --> 00:21:04,289

check and you just fill in the zeros and

425

00:21:10,609 --> 00:21:07,559

oh oh mr. Edison Oh maestro maestro

426

00:21:13,070 --> 00:21:10,619

Edison thank you thank you he does the

427

00:21:15,919 --> 00:21:13,080

work he doesn't sleep for 48 hours and

428

00:21:19,249 --> 00:21:15,929

then on Monday morning Edison shows up

429

00:21:22,190 --> 00:21:19,259

and he goes oh mr. Edison I've done it

430

00:21:24,619 --> 00:21:22,200

Oh master Edison I fixed the generators

431

00:21:27,430 --> 00:21:24,629

can I have my check now and Edison says

432

00:21:31,700 --> 00:21:27,440

to him you thought that I was serious

433

00:21:35,749 --> 00:21:31,710

poor guy I mean his whole life there's

434

00:21:39,019 --> 00:21:35,759

Marconi you know now there there was a

435

00:21:42,200 --> 00:21:39,029

rivalry between the two as well oh my

436

00:21:45,529 --> 00:21:42,210

god the rivalry lasted I mean the

437

00:21:47,889 --> 00:21:45,539

rivalry lasted until Edison died in in

438

00:21:51,320 --> 00:21:47,899

in 1932

439

00:21:55,129 --> 00:21:51,330

one of the biggest explosions between

440

00:21:58,690 --> 00:21:55,139

them came in the 1893 Chicago World's

441

00:22:03,019 --> 00:21:58,700

Fair Chicago the City of Light yes yeah

442

00:22:06,079 --> 00:22:03,029

Edison Edison's General Electric put in

443

00:22:07,820 --> 00:22:06,089

a bid for phenomenal amount of money

444

00:22:11,930 --> 00:22:07,830

over a million dollars to light the fair

445

00:22:16,909 --> 00:22:11,940

and the Chicago World's Fair management

446

00:22:18,499 --> 00:22:16,919

team said we can't afford this where's

447

00:22:23,149 --> 00:22:18,509

the money for this hmm

448

00:22:26,299 --> 00:22:23,159

so Edison thinking I'm really smart cuts

449

00:22:30,340 --> 00:22:26,309

the bit in half nobody's gonna be able

450

00:22:34,899 --> 00:22:30,350

to match this Tesla

451
00:22:38,889 --> 00:22:34,909
with Westinghouse comes in \$100,000 less

452
00:22:40,720 --> 00:22:38,899
he gets the bid yeah and Edison has such

453
00:22:42,490 --> 00:22:40,730
a grudge he doesn't even let him use his

454
00:22:43,919 --> 00:22:42,500
lightbulbs right that's true because

455
00:22:46,419 --> 00:22:43,929
here's what happens

456
00:22:48,340 --> 00:22:46,429
Tesla likes the fair with alternating

457
00:22:51,129 --> 00:22:48,350
current yeah he doesn't need Edison's

458
00:22:53,049 --> 00:22:51,139
light bulbs what was the dream he had as

459
00:22:54,909 --> 00:22:53,059
a young boy before he ever came to

460
00:22:57,159 --> 00:22:54,919
America that he wanted to do something

461
00:22:58,960 --> 00:22:57,169
with Niagara Falls right he wanted to

462
00:23:00,370 --> 00:22:58,970
build a generator he actually yeah yeah

463
00:23:03,610 --> 00:23:00,380

which he did he did yeah

464

00:23:07,450 --> 00:23:03,620

I mean his dream was to use the power of

465

00:23:09,549 --> 00:23:07,460

Niagara Falls and and and make that turn

466

00:23:12,399 --> 00:23:09,559

a generator and that generator would

467

00:23:15,669 --> 00:23:12,409

power the entire Northeast grid and

468

00:23:18,070 --> 00:23:15,679

that's exactly what he did he used the

469

00:23:20,560 --> 00:23:18,080

power of Niagara Falls he was one of the

470

00:23:23,320 --> 00:23:20,570

earliest inventors to develop

471

00:23:26,200 --> 00:23:23,330

hydroelectric power is that how long did

472

00:23:27,850 --> 00:23:26,210

that service run for there oh I don't

473

00:23:31,960 --> 00:23:27,860

know I mean it's no longer running

474

00:23:34,330 --> 00:23:31,970

previously but in fact we could go off

475

00:23:38,980 --> 00:23:34,340

on a tangent about the 1965 power

476

00:23:44,980 --> 00:23:38,990

blackout but it only ran for about I

477

00:23:47,649 --> 00:23:44,990

want to say maybe 35 40 years hmm still

478

00:23:49,330 --> 00:23:47,659

mmm that's a that's a lot of free power

479

00:23:51,039 --> 00:23:49,340

and like the Hoover Dam you know I mean

480

00:23:53,470 --> 00:23:51,049

you look at it that way I mean

481

00:23:56,019 --> 00:23:53,480

the Hoover Dam was such a massive

482

00:23:57,549 --> 00:23:56,029

undertaking Niagara Falls was not but

483

00:23:59,950 --> 00:23:57,559

you would never be able to do something

484

00:24:01,749 --> 00:23:59,960

that in a natural situation today no in

485

00:24:03,220 --> 00:24:01,759

the park or anything no I mean and

486

00:24:05,289 --> 00:24:03,230

that's what's so fun and that's what so

487

00:24:07,060 --> 00:24:05,299

and this is where you know you're seeing

488

00:24:10,899 --> 00:24:07,070

well this is where we are now as a

489

00:24:15,100 --> 00:24:10,909

country I mean to do that kind of work

490

00:24:17,230 --> 00:24:15,110

now how much environmental impact would

491

00:24:19,450 --> 00:24:17,240

that have how much disturbance would

492

00:24:21,279 --> 00:24:19,460

that have so people will scream oh oh

493

00:24:22,779 --> 00:24:21,289

you're killing the fish but on the one

494

00:24:24,369 --> 00:24:22,789

hand you're saying yeah we're killing

495

00:24:25,930 --> 00:24:24,379

the fish but look at all the free power

496

00:24:27,490 --> 00:24:25,940

on the other end people are saying but

497

00:24:29,619 --> 00:24:27,500

how much of the environment are you

498

00:24:32,529 --> 00:24:29,629

going to destroy this is exactly the

499

00:24:34,240 --> 00:24:32,539

today this is what's facing us right now

500

00:24:35,740 --> 00:24:34,250

because when you look at some of the

501
00:24:37,450 --> 00:24:35,750
environmental impacts that are coming

502
00:24:40,180 --> 00:24:37,460
out of the administration from the

503
00:24:41,619 --> 00:24:40,190
Energy Department from from the

504
00:24:43,230 --> 00:24:41,629
Environmental Protection Department when

505
00:24:45,480 --> 00:24:43,240
you're looking at that

506
00:24:48,510 --> 00:24:45,490
you're seeing the same arguments today

507
00:24:51,510 --> 00:24:48,520
that you would have seen a hundred years

508
00:24:55,650 --> 00:24:51,520
ago that is something let's talk about

509
00:24:58,290 --> 00:24:55,660
more of the friction between Tesla and

510
00:25:03,060 --> 00:24:58,300
Edison as time went on now I mentioned

511
00:25:05,970 --> 00:25:03,070
Marconi you know didn't actually without

512
00:25:08,640 --> 00:25:05,980
Tesla the radio would have taken a lot

513
00:25:12,450 --> 00:25:08,650

longer to invent right this is another

514

00:25:15,360 --> 00:25:12,460

bone of contention yes it was more Coney

515

00:25:18,150 --> 00:25:15,370

who first began to develop wireless

516

00:25:21,930 --> 00:25:18,160

transmissions yes that's true

517

00:25:24,030 --> 00:25:21,940

at the same time Tesla was developing

518

00:25:26,520 --> 00:25:24,040

wireless transmission of radio is it

519

00:25:30,660 --> 00:25:26,530

what is a radio if it's electrons right

520

00:25:32,310 --> 00:25:30,670

I mean an Edison was working on the

521

00:25:33,810 --> 00:25:32,320

transmission of electrons because he

522

00:25:37,350 --> 00:25:33,820

improved bells telephone number at

523

00:25:39,090 --> 00:25:37,360

Bell's telephone didn't have a carbon

524

00:25:40,830 --> 00:25:39,100

transmitter in it that's what phones

525

00:25:43,620 --> 00:25:40,840

have and we're not our phone's not

526

00:25:47,010 --> 00:25:43,630

digital phones but the basic analog

527

00:25:48,720 --> 00:25:47,020

phones have this thing if you unscrew

528

00:25:52,710 --> 00:25:48,730

the mouthpiece

529

00:25:55,169 --> 00:25:52,720

inside there is a of this some carbon

530

00:25:57,510 --> 00:25:55,179

diaphragm and that is a transmitter and

531

00:25:59,580 --> 00:25:57,520

what that does is it translates the

532

00:26:03,810 --> 00:25:59,590

sound waves to electric waves to

533

00:26:06,720 --> 00:26:03,820

electrons grains telephone didn't have

534

00:26:08,760 --> 00:26:06,730

that so grain would have to shout into

535

00:26:12,480 --> 00:26:08,770

the phone come here Watson I want you

536

00:26:15,330 --> 00:26:12,490

and that was the phone that was at the

537

00:26:18,900 --> 00:26:15,340

White House that so impressed the

538

00:26:22,230 --> 00:26:18,910

president what Edison did was he

539

00:26:25,140 --> 00:26:22,240

realized that a carbon diaphragm would

540

00:26:28,919 --> 00:26:25,150

transmit an electric current and that

541

00:26:31,910 --> 00:26:28,929

improved the telephone hmm Tesla

542

00:26:34,950 --> 00:26:31,920

believed that you could do electronic

543

00:26:37,440 --> 00:26:34,960

transmission of electrons and he

544

00:26:40,700 --> 00:26:37,450

believed in wireless transmission so

545

00:26:43,380 --> 00:26:40,710

both he and Marconi at the same time

546

00:26:47,100 --> 00:26:43,390

we're developing wireless transmission

547

00:26:54,820 --> 00:26:47,110

of electronics of didd of electro

548

00:27:03,019 --> 00:26:59,049

now we're coming up on World War two and

549

00:27:07,279 --> 00:27:03,029

Marconi who is a fascist I mean he was

550

00:27:10,960 --> 00:27:07,289

working for Mussolini Marconi asserts

551
00:27:13,430 --> 00:27:10,970
that the United States cannot use radios

552
00:27:16,849 --> 00:27:13,440
because that would infringe upon his

553
00:27:18,499 --> 00:27:16,859
patent and they owed him licensing fees

554
00:27:21,399 --> 00:27:18,509
and he refused to give them any the

555
00:27:25,669 --> 00:27:21,409
license to use it the United States

556
00:27:27,769 --> 00:27:25,679
challenges the patent and says that you

557
00:27:30,999 --> 00:27:27,779
don't have the patent the United States

558
00:27:33,950 --> 00:27:31,009
Supreme Court now what's funny is

559
00:27:36,919 --> 00:27:33,960
Marconi is basically on the side of

560
00:27:38,899 --> 00:27:36,929
Edison because it's Edison who's

561
00:27:43,430 --> 00:27:38,909
Licensing those patents because remember

562
00:27:48,549 --> 00:27:43,440
right about it was the Marconi radio

563
00:27:52,249 --> 00:27:48,559

system that was used with Edison and

564

00:27:58,399 --> 00:27:52,259

with a person who was working for

565

00:28:01,310 --> 00:27:58,409

Marconi Roberts Sarnoff to wire the

566

00:28:04,310 --> 00:28:01,320

early motion picture studios oh and the

567

00:28:08,810 --> 00:28:04,320

financier behind all of that

568

00:28:13,989 --> 00:28:08,820

was wait for it Papa Joe Kennedy Joseph

569

00:28:16,099 --> 00:28:13,999

Kennedy Wow and the early that's why RKO

570

00:28:18,919 --> 00:28:16,109

became the first one of the first

571

00:28:21,379 --> 00:28:18,929

studios to become wired for sound that's

572

00:28:22,340 --> 00:28:21,389

how talkies began and that was all

573

00:28:25,190 --> 00:28:22,350

through Morricone

574

00:28:27,259 --> 00:28:25,200

so the United States challenges

575

00:28:29,749 --> 00:28:27,269

Marconi's patents the Supreme Court

576

00:28:31,970 --> 00:28:29,759

pulls the patent away from Marconi the

577

00:28:34,399 --> 00:28:31,980

United States get to use gets to use

578

00:28:37,879 --> 00:28:34,409

radios in World War two without paying a

579

00:28:40,759 --> 00:28:37,889

license fee and so the common myth is

580

00:28:43,549 --> 00:28:40,769

that Tesla defeated Marconi for the

581

00:28:46,129 --> 00:28:43,559

patent not true Tesla was not a part of

582

00:28:47,659 --> 00:28:46,139

that case you know for some reason I was

583

00:28:51,950 --> 00:28:47,669

thinking radios were a lot earlier than

584

00:28:53,779 --> 00:28:51,960

World War two hmm okay they were but

585

00:28:55,729 --> 00:28:53,789

everybody was paying Marconi licensing

586

00:28:56,330 --> 00:28:55,739

fees I see what you're saying yeah I got

587

00:29:05,119 --> 00:28:56,340

it I got it

588

00:29:07,339 --> 00:29:05,129

so getting back to Edison he he let's I

589

00:29:08,150 --> 00:29:07,349

think Tesla basically walks away right

590

00:29:10,610 --> 00:29:08,160

yes

591

00:29:14,510 --> 00:29:10,620

one point he walks away did he walk away

592

00:29:16,070 --> 00:29:14,520

with a plan or did he just I know he met

593

00:29:18,620 --> 00:29:16,080

up with Westinghouse how did all that

594

00:29:22,070 --> 00:29:18,630

happen he goes to George Westinghouse

595

00:29:26,720 --> 00:29:22,080

and he says to George Westinghouse if

596

00:29:30,470 --> 00:29:26,730

you invest in my alternating current not

597

00:29:33,650 --> 00:29:30,480

only will we defeat General Electric but

598

00:29:37,960 --> 00:29:33,660

we will make more money because it's

599

00:29:43,210 --> 00:29:37,970

cheaper to build cheaper to install and

600

00:29:46,550 --> 00:29:43,220

here's the key you could not install

601
00:29:49,160 --> 00:29:46,560
direct current across the North American

602
00:29:51,220 --> 00:29:49,170
continent because you couldn't put that

603
00:29:56,170 --> 00:29:51,230
many relay stations across the country

604
00:29:59,030 --> 00:29:56,180
what Tesla argued to Westinghouse was

605
00:30:01,760 --> 00:29:59,040
that the power behind alternating

606
00:30:03,920 --> 00:30:01,770
current is so great that you're not

607
00:30:05,240 --> 00:30:03,930
going to need relay stations strung

608
00:30:07,850 --> 00:30:05,250
right across the North American

609
00:30:11,000 --> 00:30:07,860
continent we can distribute that power

610
00:30:14,360 --> 00:30:11,010
by cable now Edison said and here's

611
00:30:16,660 --> 00:30:14,370
another great story Anacin said no no no

612
00:30:20,660 --> 00:30:16,670
that's not going to work because

613
00:30:25,490 --> 00:30:20,670

alternating current the voltage is so

614

00:30:28,340 --> 00:30:25,500

high that somebody touches a you put it

615

00:30:30,170 --> 00:30:28,350

into a house somebody goes to plug

616

00:30:32,090 --> 00:30:30,180

something in there's a short-circuit

617

00:30:33,620 --> 00:30:32,100

you're gonna have thousands of volts

618

00:30:37,210 --> 00:30:33,630

going through a human body the person

619

00:30:41,840 --> 00:30:37,220

will be electrocuted so what is Tesla do

620

00:30:46,160 --> 00:30:41,850

he invents the transformer two-step

621

00:30:49,700 --> 00:30:46,170

current down so you go through or I live

622

00:30:52,340 --> 00:30:49,710

right now in eastern Pennsylvania you

623

00:30:55,100 --> 00:30:52,350

see these major power lines going across

624

00:30:57,830 --> 00:30:55,110

the Delaware River up and down up north

625

00:30:59,750 --> 00:30:57,840

and south across the state and and you

626
00:31:01,520 --> 00:30:59,760
can't even go near these power lines

627
00:31:03,560 --> 00:31:01,530
you can't build near them you can't put

628
00:31:06,290 --> 00:31:03,570
a house near them because the power is

629
00:31:10,790 --> 00:31:06,300
so intense and the static electricity is

630
00:31:13,880 --> 00:31:10,800
is dangerous yeah but if you look on the

631
00:31:16,130 --> 00:31:13,890
power poles as the power goes into and

632
00:31:16,850 --> 00:31:16,140
and is distributed to the housing

633
00:31:19,340 --> 00:31:16,860
developments

634
00:31:21,800 --> 00:31:19,350
you see these transformers on the poles

635
00:31:24,710 --> 00:31:21,810
those transformers step the power

636
00:31:28,720 --> 00:31:24,720
were down to 120 volts that's what Tesla

637
00:31:31,940 --> 00:31:28,730
invented in other words Tesla made

638
00:31:35,210 --> 00:31:31,950

alternating currents safe for household

639

00:31:38,440 --> 00:31:35,220

use Edison would have none of that what

640

00:31:42,860 --> 00:31:38,450

Edison said is I'm gonna prove that

641

00:31:46,220 --> 00:31:42,870

alternating current is deadly what is

642

00:31:48,740 --> 00:31:46,230

that so here's what he does he goes to

643

00:31:50,180 --> 00:31:48,750

New York State and he says the New York

644

00:31:52,430 --> 00:31:50,190

State who do you have on death row that

645

00:31:54,470 --> 00:31:52,440

you're gonna knock off at New York's

646

00:31:57,290 --> 00:31:54,480

result is this prisoners murderer

647

00:32:00,080 --> 00:31:57,300

Richard calories of vicious men Tesla

648

00:32:04,280 --> 00:32:00,090

said Edison says I'm gonna find a way to

649

00:32:07,910 --> 00:32:04,290

execute this man for free so he hires an

650

00:32:10,400 --> 00:32:07,920

engineer to build a chair and he

651
00:32:13,910 --> 00:32:10,410
electrifies the chair with with with

652
00:32:16,940 --> 00:32:13,920
unsnapped down alternating current but

653
00:32:18,350 --> 00:32:16,950
first he has to test it so he's testing

654
00:32:21,500 --> 00:32:18,360
it he's killing dogs

655
00:32:23,660 --> 00:32:21,510
he's killing cats he's killing elephants

656
00:32:25,760 --> 00:32:23,670
he's anything that comes in it's

657
00:32:28,760 --> 00:32:25,770
terrible that's what he's doing

658
00:32:30,500 --> 00:32:28,770
then they put Kammler in the chair now

659
00:32:34,130 --> 00:32:30,510
this is a scene from The Green Mile

660
00:32:37,700 --> 00:32:34,140
right then they put him in the chair put

661
00:32:40,850 --> 00:32:37,710
the helmet strap men they throw the

662
00:32:44,420 --> 00:32:40,860
power switches and what happens Kammler

663
00:32:47,660 --> 00:32:44,430

begins to smoke begins to melt his eyes

664

00:32:49,910 --> 00:32:47,670

start to run but he doesn't die how'd

665

00:32:53,750 --> 00:32:49,920

you do it like three times yes they do

666

00:32:55,790 --> 00:32:53,760

it again then they do it again only as a

667

00:32:58,220 --> 00:32:55,800

heart attack and dies so what are the

668

00:33:00,530 --> 00:32:58,230

New York papers say incredible and

669

00:33:02,780 --> 00:33:00,540

George Westinghouse was furious he's

670

00:33:05,780 --> 00:33:02,790

saying you can do this he's complaining

671

00:33:10,040 --> 00:33:05,790

to the governor this is inhumane this is

672

00:33:13,570 --> 00:33:10,050

like barbaric torture mm-hmm the New

673

00:33:16,550 --> 00:33:13,580

York papers say that Richard Kammler was

674

00:33:19,520 --> 00:33:16,560

Westinghouse Oh

675

00:33:23,300 --> 00:33:19,530

oh my god and that was the first example

676
00:33:27,200 --> 00:33:23,310
of unbranded of alternating currents oh

677
00:33:29,150 --> 00:33:27,210
my god Wow and so as he worked with

678
00:33:32,330 --> 00:33:29,160
Westinghouse I remember there was a

679
00:33:33,860 --> 00:33:32,340
contract that Tesla had with

680
00:33:36,019 --> 00:33:33,870
Westinghouse and had to do with

681
00:33:37,879 --> 00:33:36,029
horsepower so many dollars

682
00:33:40,039 --> 00:33:37,889
for every horsepower writer that he know

683
00:33:42,049 --> 00:33:40,049
which would have added would have been

684
00:33:45,259 --> 00:33:42,059
probably a trillion dollars today but

685
00:33:48,499 --> 00:33:45,269
you know millions of dollars hmm

686
00:33:51,859 --> 00:33:48,509
now Westinghouse went through some type

687
00:33:54,259 --> 00:33:51,869
of bad financial time and Tesla forgave

688
00:33:56,959 --> 00:33:54,269

that contract is that right the Great

689

00:34:01,789 --> 00:33:56,969

Depression the depression of course the

690

00:34:04,389 --> 00:34:01,799

crash of the stock market Tesla was on

691

00:34:08,089 --> 00:34:04,399

the verge of being a multi billionaire

692

00:34:10,789 --> 00:34:08,099

but he was a very I mean he was a bitter

693

00:34:12,409 --> 00:34:10,799

man I can tell you stories about Tesla

694

00:34:15,079 --> 00:34:12,419

that but basically of your eyes will

695

00:34:17,599 --> 00:34:15,089

cross he was a bitter man but on the

696

00:34:21,109 --> 00:34:17,609

other hand he was forgiving to the

697

00:34:25,069 --> 00:34:21,119

people who he believed supported him so

698

00:34:29,480 --> 00:34:25,079

he forgave that fee that he was owed

699

00:34:30,980 --> 00:34:29,490

from that horsepower fee that that he

700

00:34:34,430 --> 00:34:30,990

was owed from west guess and in the end

701
00:34:36,230 --> 00:34:34,440
the same thing with JP Morgan Tesla goes

702
00:34:39,019 --> 00:34:36,240
to JP Morgan and because I've got the

703
00:34:41,659 --> 00:34:39,029
greatest invention I can transmit power

704
00:34:43,970 --> 00:34:41,669
wirelessly that's happening right now

705
00:34:46,099 --> 00:34:43,980
you can charge your iPhones now with the

706
00:34:48,440 --> 00:34:46,109
certain iPhones will charge wirelessly

707
00:34:49,819 --> 00:34:48,450
I used to say as a joke when I was a kid

708
00:34:52,309 --> 00:34:49,829
I was gonna invent the wireless

709
00:34:54,260 --> 00:34:52,319
extension cord as a joke but I had

710
00:34:56,569 --> 00:34:54,270
before a we've even heard of Tesla

711
00:34:58,400 --> 00:34:56,579
exactly if that was Tesla's plan

712
00:35:02,150 --> 00:34:58,410
Wireless distribution of electricity

713
00:35:04,190 --> 00:35:02,160

which we are going to have but he was he

714

00:35:05,690 --> 00:35:04,200

was envisioning it coming from the sky

715

00:35:08,690 --> 00:35:05,700

well sure

716

00:35:12,819 --> 00:35:08,700

coming from these giant antennas beaming

717

00:35:17,589 --> 00:35:12,829

power to municipal distribution grids

718

00:35:20,120 --> 00:35:17,599

free right and JP Morgan says to Tesla

719

00:35:23,750 --> 00:35:20,130

why would I invest in something that I

720

00:35:27,789 --> 00:35:23,760

can't charge for yeah he was pretty

721

00:35:31,130 --> 00:35:27,799

pretty shrewd so he goes to Colorado

722

00:35:33,349 --> 00:35:31,140

builds this this tower right and El

723

00:35:35,450 --> 00:35:33,359

Dorado Springs at one point does any say

724

00:35:39,160 --> 00:35:35,460

that he's him is it there that he thinks

725

00:35:42,200 --> 00:35:39,170

he hears an alien signal right yeah

726

00:35:45,650 --> 00:35:42,210

Tesla's view is that there are all these

727

00:35:48,829 --> 00:35:45,660

hidden frequencies and all we had to do

728

00:35:49,690 --> 00:35:48,839

was find the right frequency and you'd

729

00:35:54,370 --> 00:35:49,700

hear voice

730

00:35:58,510 --> 00:35:54,380

says not only of aliens but voices of

731

00:36:01,840 --> 00:35:58,520

the dead really that was his theory that

732

00:36:05,980 --> 00:36:01,850

now here's the plausibility of that

733

00:36:08,800 --> 00:36:05,990

theory you and I are talking and our

734

00:36:12,130 --> 00:36:08,810

voices the the radio waves the sound

735

00:36:15,760 --> 00:36:12,140

waves from our conversation are going

736

00:36:18,790 --> 00:36:15,770

out into space they're in a certain

737

00:36:24,310 --> 00:36:18,800

frequency so let's say there's an alien

738

00:36:27,910 --> 00:36:24,320

race out beyond Pluto if they had the

739

00:36:31,300 --> 00:36:27,920

right kind of equipment in theory Tesla

740

00:36:34,270 --> 00:36:31,310

argued they'd be able to pick up our the

741

00:36:37,420 --> 00:36:34,280

frequency of our conversation so our

742

00:36:41,200 --> 00:36:37,430

voices would never die then Tesla said

743

00:36:43,530 --> 00:36:41,210

take that to the next stage what if it's

744

00:36:47,020 --> 00:36:43,540

a hundred and fifty years in the future

745

00:36:48,880 --> 00:36:47,030

but our conversations just like the

746

00:36:50,800 --> 00:36:48,890

Tesla motor car with the mannequin

747

00:36:53,680 --> 00:36:50,810

that's now going out into the so out of

748

00:36:56,070 --> 00:36:53,690

the solar system yeah yeah what talk

749

00:36:59,020 --> 00:36:56,080

about yeah we were just like that a

750

00:37:01,660 --> 00:36:59,030

million years from now if that's not

751
00:37:03,790 --> 00:37:01,670
destroyed by radiation or not picked up

752
00:37:06,670 --> 00:37:03,800
by an alien but that's still going to be

753
00:37:10,090 --> 00:37:06,680
out there in out beyond the solar system

754
00:37:13,750 --> 00:37:10,100
well so will the sound of our voices if

755
00:37:18,370 --> 00:37:13,760
you had the right frequency long after

756
00:37:21,070 --> 00:37:18,380
we're gone so Tesla is saying if I could

757
00:37:25,270 --> 00:37:21,080
find the right frequency I will hear the

758
00:37:28,690 --> 00:37:25,280
voices of the dead and that was Tesla's

759
00:37:30,250 --> 00:37:28,700
plan for the spirit phone isn't that

760
00:37:31,630 --> 00:37:30,260
amazing it's almost like when you're

761
00:37:34,660 --> 00:37:31,640
looking through a telescope you're

762
00:37:37,060 --> 00:37:34,670
looking back in time you know exactly I

763
00:37:39,490 --> 00:37:37,070

was proven correct we look back in time

764

00:37:41,140 --> 00:37:39,500

we can look at at very close to the

765

00:37:44,620 --> 00:37:41,150

beginning of the universe only a better

766

00:37:47,260 --> 00:37:44,630

a billion years yeah I mean and the and

767

00:37:49,690 --> 00:37:47,270

and the gravitational waves we've picked

768

00:37:51,850 --> 00:37:49,700

them up just just two years ago

769

00:37:54,640 --> 00:37:51,860

that's what's so fascinating so Tesla

770

00:37:57,580 --> 00:37:54,650

was actually proven correct in that

771

00:38:00,940 --> 00:37:57,590

theory when those waves altered altered

772

00:38:02,080 --> 00:38:00,950

space-time from the collapse from the

773

00:38:03,130 --> 00:38:02,090

action not the collapse with the

774

00:38:05,890 --> 00:38:03,140

collision

775

00:38:08,610 --> 00:38:05,900

of two massive black holes 1.3 billion

776

00:38:11,800 --> 00:38:08,620

years ago yeah now

777

00:38:15,700 --> 00:38:11,810

Edison's view Edison also had a view

778

00:38:21,340 --> 00:38:15,710

he said his last invention this is now

779

00:38:24,490 --> 00:38:21,350

it's 1920 America and Europe are our son

780

00:38:26,770 --> 00:38:24,500

by the deaths in World War one remember

781

00:38:29,140 --> 00:38:26,780

World War one it's been said a lot and

782

00:38:32,320 --> 00:38:29,150

I'll say it again it's trite now was a

783

00:38:35,800 --> 00:38:32,330

19th century war fought with 20th

784

00:38:40,200 --> 00:38:35,810

century weapons airpower massive

785

00:38:42,700 --> 00:38:40,210

artillery poison gas automatic weapons

786

00:38:46,000 --> 00:38:42,710

so you can't just have a Napoleon

787

00:38:49,450 --> 00:38:46,010

Bonaparte army marching on Waterloo when

788

00:38:53,110 --> 00:38:49,460

you have automatic weapons firing into

789

00:38:55,600 --> 00:38:53,120

the line of soldiers we found that in a

790

00:38:57,550 --> 00:38:55,610

civil war right when when when Richard

791

00:39:01,240 --> 00:38:57,560

Jordan Gatling invented the Gatling gun

792

00:39:03,640 --> 00:39:01,250

toward the end of the war we were using

793

00:39:07,810 --> 00:39:03,650

that in the Indian Wars and the American

794

00:39:09,730 --> 00:39:07,820

West so so this was this was a weapon

795

00:39:17,440 --> 00:39:09,740

for that time a weapon of mass

796

00:39:19,810 --> 00:39:17,450

destruction so that mass death created

797

00:39:21,910 --> 00:39:19,820

such a level of beer even we have the

798

00:39:25,650 --> 00:39:21,920

Lost Generation in Europe Ernest

799

00:39:30,730 --> 00:39:25,660

Hemingway and and and and Picasso and an

800

00:39:33,880 --> 00:39:30,740

Edison thought what if Edison's theory

801
00:39:35,920 --> 00:39:33,890
was that everything is come is alive it

802
00:39:38,230 --> 00:39:35,930
was it was a guy and it's what we'd call

803
00:39:41,710 --> 00:39:38,240
today it's the theory of Gaia rocks are

804
00:39:45,460 --> 00:39:41,720
alive soil is alive materials are alive

805
00:39:50,020 --> 00:39:45,470
the are the wood of the wood in this

806
00:39:52,690 --> 00:39:50,030
table is alive this is alive it's all

807
00:39:55,150 --> 00:39:52,700
alive well in a way you know and it's

808
00:39:59,350 --> 00:39:55,160
sort of in a way it is exactly you know

809
00:40:03,480 --> 00:39:59,360
Amol cosa so therefore Edison said if

810
00:40:06,880 --> 00:40:03,490
their life units can life units be

811
00:40:09,880 --> 00:40:06,890
independent of their physicality in

812
00:40:12,340 --> 00:40:09,890
other words our life units can they be

813
00:40:14,560 --> 00:40:12,350

transmitted can they be free-floating

814

00:40:16,280 --> 00:40:14,570

is there a medium through which they

815

00:40:18,320 --> 00:40:16,290

travel

816

00:40:23,350 --> 00:40:18,330

and he said if I could figure out a way

817

00:40:27,410 --> 00:40:23,360

to get a signal from those life units I

818

00:40:30,490 --> 00:40:27,420

could talk to the dead and so here's

819

00:40:33,940 --> 00:40:30,500

what he did here was his invention

820

00:40:40,180 --> 00:40:33,950

Tesla's theory was radio waves

821

00:40:44,870 --> 00:40:40,190

Edison's theory was photons light waves

822

00:40:46,970 --> 00:40:44,880

Edison said now at this point he had

823

00:40:49,040 --> 00:40:46,980

already invented the motion picture

824

00:40:51,260 --> 00:40:49,050

projector to a large screen

825

00:40:54,230 --> 00:40:51,270

I mean motion picture projection had

826
00:40:58,460 --> 00:40:54,240
already been invented by then he didn't

827
00:41:01,340 --> 00:40:58,470
invent motion pictures but what he

828
00:41:05,690 --> 00:41:01,350
thought he could do is if if he instead

829
00:41:08,180 --> 00:41:05,700
of blowing up through lenses the image

830
00:41:10,220 --> 00:41:08,190
on film he invented the sprocket camera

831
00:41:13,340 --> 00:41:10,230
though but if he could blow up on a

832
00:41:15,980 --> 00:41:13,350
large screen then you could have an

833
00:41:17,420 --> 00:41:15,990
audience see motion pictures as opposed

834
00:41:20,630 --> 00:41:17,430
to the Nickelodeon where you had to look

835
00:41:22,190 --> 00:41:20,640
inside doing on a large screen you could

836
00:41:26,120 --> 00:41:22,200
have multiple people seeing the same in

837
00:41:31,130 --> 00:41:26,130
a theater what if I made the light beam

838
00:41:33,470 --> 00:41:31,140

the photon beam pencil-thin okay now

839

00:41:35,510 --> 00:41:33,480

it's a pencil-thin photon beam where am

840

00:41:37,520 --> 00:41:35,520

i focusing that beam well I'm gonna

841

00:41:40,670 --> 00:41:37,530

focus it on a light meter so when the

842

00:41:42,650 --> 00:41:40,680

beam hits the meter the meter is being

843

00:41:45,350 --> 00:41:42,660

registered with that a light beam is

844

00:41:47,930 --> 00:41:45,360

hitting it if something gets in the way

845

00:41:51,290 --> 00:41:47,940

of that beam the meter is going to

846

00:41:54,290 --> 00:41:51,300

fluctuate if that meter if that cell

847

00:41:58,070 --> 00:41:54,300

that photoelectric cell that's what it

848

00:42:01,160 --> 00:41:58,080

is is is wired to a meter and that dial

849

00:42:03,140 --> 00:42:01,170

on the meter flips I'll know if

850

00:42:05,210 --> 00:42:03,150

something is interrupting the beam

851
00:42:07,880 --> 00:42:05,220
before it hits the photoelectric cell

852
00:42:09,980 --> 00:42:07,890
mm-hmm that'll tell me even though

853
00:42:12,160 --> 00:42:09,990
there's I can't see anything that

854
00:42:15,770 --> 00:42:12,170
something is crossing that beam and that

855
00:42:18,380 --> 00:42:15,780
was the spirit phone Wow which ended up

856
00:42:21,200 --> 00:42:18,390
being something to open doors and all

857
00:42:23,360 --> 00:42:21,210
kinds of things right yes I talk about

858
00:42:26,930 --> 00:42:23,370
the strange ways that we invent things

859
00:42:28,760 --> 00:42:26,940
for one purpose and turn out being for

860
00:42:30,950 --> 00:42:28,770
another purpose yeah

861
00:42:34,160 --> 00:42:30,960
really something I was gonna and I will

862
00:42:36,200 --> 00:42:34,170
ask you now I wonder if Tesla would have

863
00:42:38,630 --> 00:42:36,210

ever invade envisioned first of all a

864

00:42:41,240 --> 00:42:38,640

car would be named after him by Elon

865

00:42:43,850 --> 00:42:41,250

Musk but actually would be floating you

866

00:42:47,030 --> 00:42:43,860

know throughout the galaxy possibly you

867

00:42:48,890 --> 00:42:47,040

know forever and ever I mean whatever I

868

00:42:51,350 --> 00:42:48,900

have course cars that already been

869

00:42:54,970 --> 00:42:51,360

invented by the time Tesla was inventing

870

00:42:57,980 --> 00:42:54,980

I mean cars were combustion engines were

871

00:43:01,460 --> 00:42:57,990

combustion in fact combustion engines

872

00:43:05,450 --> 00:43:01,470

were being used to power lighter than

873

00:43:08,570 --> 00:43:05,460

air craft in the 1890s right the great

874

00:43:10,460 --> 00:43:08,580

Texas airship mystery of 1897 in Aurora

875

00:43:12,950 --> 00:43:10,470

Texas that was the lighter-than-air

876

00:43:16,340 --> 00:43:12,960

craft powered by a combustion engine

877

00:43:19,730 --> 00:43:16,350

that hit the paddle wheels the windmills

878

00:43:22,790 --> 00:43:19,740

of a well pump exploded the gasoline

879

00:43:25,550 --> 00:43:22,800

engine and wasn't UFO was UFO to them

880

00:43:27,530 --> 00:43:25,560

yeah but it wasn't a UFO to us now that

881

00:43:30,170 --> 00:43:27,540

was that Kant did that actually get

882

00:43:31,820 --> 00:43:30,180

solved and you're you're showing UFO

883

00:43:34,310 --> 00:43:31,830

Hunters yeah we solved that because what

884

00:43:37,190 --> 00:43:34,320

happened was well there's the unknown

885

00:43:39,859 --> 00:43:37,200

grave right didn't ya the unknown grave

886

00:43:42,500 --> 00:43:39,869

but b-but but the graveyard manager

887

00:43:44,510 --> 00:43:42,510

wouldn't let us dig it up so we took so

888

00:43:46,130 --> 00:43:44,520

we took ground-penetrating radar and ran

889

00:43:50,030 --> 00:43:46,140

it over the grave and sure enough there

890

00:43:51,830 --> 00:43:50,040

were bones really yeah so that why did

891

00:43:53,180 --> 00:43:51,840

they think it was just a lien to them

892

00:43:54,920 --> 00:43:53,190

they didn't understand it they didn't

893

00:43:57,650 --> 00:43:54,930

know what it was because what happened

894

00:43:59,870 --> 00:43:57,660

was these airships these were sportsmen

895

00:44:02,660 --> 00:43:59,880

in the American Southwest here right

896

00:44:04,550 --> 00:44:02,670

here and what they were doing is they

897

00:44:06,830 --> 00:44:04,560

would decorate the first one they would

898

00:44:09,620 --> 00:44:06,840

clad their airships with metal so they

899

00:44:11,570 --> 00:44:09,630

were metallically clad airships and they

900

00:44:14,150 --> 00:44:11,580

were in the shapes of birds so people

901
00:44:16,760 --> 00:44:14,160
would see these metallic birds flying

902
00:44:17,990 --> 00:44:16,770
through the air with a combustion engine

903
00:44:21,200 --> 00:44:18,000
they didn't know what a combustion

904
00:44:24,320 --> 00:44:21,210
engine was powered like that and in fact

905
00:44:27,650 --> 00:44:24,330
in the 1890s they were trying to get

906
00:44:30,440 --> 00:44:27,660
these airships over to Cuba to fight

907
00:44:32,660 --> 00:44:30,450
Spain in the spanish-american war now

908
00:44:35,480 --> 00:44:32,670
what did they use to what do they use in

909
00:44:38,390 --> 00:44:35,490
the I want to say balloon part of the

910
00:44:39,859 --> 00:44:38,400
dirigible part of it for gas the lighter

911
00:44:42,160 --> 00:44:39,869
than air gas what did they actually use

912
00:44:44,290 --> 00:44:42,170
it wasn't hydrogen that's

913
00:44:45,940 --> 00:44:44,300

what I was gonna ask which is highly

914

00:44:48,010 --> 00:44:45,950

explosive yes

915

00:44:49,510 --> 00:44:48,020

yeah very deadly and they use that in

916

00:44:51,100 --> 00:44:49,520

the Civil War - that's right and that's

917

00:44:52,480 --> 00:44:51,110

why the balloon blew up that's why the

918

00:44:54,820 --> 00:44:52,490

whole thing blew up on hit you know when

919

00:44:58,600 --> 00:44:54,830

I when I hit the power when it hit the

920

00:45:01,390 --> 00:44:58,610

mill the paddles ruptured the hydrogen

921

00:45:04,120 --> 00:45:01,400

created a spark the thing ignites the

922

00:45:07,540 --> 00:45:04,130

engine blows up aluminum goes all over

923

00:45:10,300 --> 00:45:07,550

the place into the well which by the way

924

00:45:15,100 --> 00:45:10,310

was being closed up because judge

925

00:45:17,770 --> 00:45:15,110

Proctor had such bad arthritis I could

926
00:45:19,210 --> 00:45:17,780
go one thing after another now you just

927
00:45:22,390 --> 00:45:19,220
said the word aluminum now wasn't

928
00:45:25,180 --> 00:45:22,400
aluminum like a real precious metal at

929
00:45:27,820 --> 00:45:25,190
that time yes and when we found the

930
00:45:30,400 --> 00:45:27,830
aluminum fragments in the well that

931
00:45:32,440 --> 00:45:30,410
people said didn't exist that was the

932
00:45:34,510 --> 00:45:32,450
great part about your funders the great

933
00:45:37,450 --> 00:45:34,520
part about that show what I love the

934
00:45:43,150 --> 00:45:37,460
most about that show was debunking the

935
00:45:45,520 --> 00:45:43,160
debunkers and so when we when Pat us

936
00:45:48,700 --> 00:45:45,530
Kurt and boy we put him into the

937
00:45:50,980 --> 00:45:48,710
greatest dive in costume dropped him in

938
00:45:53,740 --> 00:45:50,990

the well he comes up with these aluminum

939

00:45:56,680 --> 00:45:53,750

pieces we took him to one of the Texas

940

00:45:58,660 --> 00:45:56,690

University mid metallurgy labs and test

941

00:46:00,310 --> 00:45:58,670

and I said yeah it's aluminum alright

942

00:46:02,590 --> 00:46:00,320

but Wow

943

00:46:05,050 --> 00:46:02,600

this is aluminum from the early 20th

944

00:46:06,250 --> 00:46:05,060

century and that was a big deal of it

945

00:46:08,110 --> 00:46:06,260

yeah because they changed the alloy

946

00:46:11,260 --> 00:46:08,120

after World War two

947

00:46:16,210 --> 00:46:11,270

yeah yeah now we only have about five or

948

00:46:17,890 --> 00:46:16,220

five or maybe seven minutes left so what

949

00:46:20,320 --> 00:46:17,900

can you tell us since you did this

950

00:46:22,870 --> 00:46:20,330

research um as you can tell I'm more

951
00:46:26,830 --> 00:46:22,880
interested in Tesla than I am and on but

952
00:46:31,210 --> 00:46:26,840
what can you tell us about Tesla the man

953
00:46:35,830 --> 00:46:31,220
I know he never married he actually I

954
00:46:37,300 --> 00:46:35,840
think women he was repulsed by women in

955
00:46:41,410 --> 00:46:37,310
their perfume and things like that he

956
00:46:44,470 --> 00:46:41,420
was very okay he he well he would he had

957
00:46:47,350 --> 00:46:44,480
he was very sensitive to all kinds of

958
00:46:49,120 --> 00:46:47,360
sensory input yeah I mean he didn't like

959
00:46:52,360 --> 00:46:49,130
loud noises mmm

960
00:46:54,790 --> 00:46:52,370
he didn't like intense fragrances aromas

961
00:46:56,650 --> 00:46:54,800
he didn't like intense taste but here's

962
00:46:58,089 --> 00:46:56,660
the funny story about him

963
00:46:59,230 --> 00:46:58,099

toward the end of his life he was that

964

00:47:01,920 --> 00:46:59,240

he was living in The New Yorker Hotel

965

00:47:06,359 --> 00:47:01,930

right that's sort of single remote I ah

966

00:47:09,430 --> 00:47:06,369

penniless man yeah and so the the

967

00:47:10,990 --> 00:47:09,440

serbo-croatian boxing championship is

968

00:47:13,150 --> 00:47:11,000

paying a visit he's gonna have the big

969

00:47:17,470 --> 00:47:13,160

heavyweight fighter in New York Madison

970

00:47:20,589 --> 00:47:17,480

Square Garden and so they say to Tesla

971

00:47:23,080 --> 00:47:20,599

oh you have to meet him master Tesla you

972

00:47:25,420 --> 00:47:23,090

you have to meet him maestro you have to

973

00:47:28,450 --> 00:47:25,430

give him your blessing for this fight so

974

00:47:31,330 --> 00:47:28,460

they meet Tesla they got and they go to

975

00:47:33,550 --> 00:47:31,340

a restaurant and and and this is a

976

00:47:36,250 --> 00:47:33,560

fighter he's strapping man he's in

977

00:47:38,410 --> 00:47:36,260

training so he's and and and he's eating

978

00:47:40,930 --> 00:47:38,420

light and Tesla says okay how can you

979

00:47:43,359 --> 00:47:40,940

fight in the championship without wine

980

00:47:46,599 --> 00:47:43,369

and steak and they say oh no no no no

981

00:47:49,900 --> 00:47:46,609

master Tesla he can't do that staple

982

00:47:53,470 --> 00:47:49,910

will wear him down he'll be too sluggish

983

00:47:58,030 --> 00:47:53,480

to fight Tesla goes nonsense the biggest

984

00:48:03,270 --> 00:47:58,040

steak give it to him it's the steak he's

985

00:48:10,599 --> 00:48:06,430

flattened oh my god oh that's something

986

00:48:13,839 --> 00:48:10,609

and I know that he he befriended birds

987

00:48:16,480 --> 00:48:13,849

you know I mean he would he would feed

988

00:48:18,520 --> 00:48:16,490

the birds but he did he have friends did

989

00:48:21,160 --> 00:48:18,530

he have any friends you know but here's

990

00:48:23,109 --> 00:48:21,170

a boarder he was a loner and he would

991

00:48:25,359 --> 00:48:23,119

stack up all of his files of his

992

00:48:30,550 --> 00:48:25,369

sketches and inventions and his plans

993

00:48:31,870 --> 00:48:30,560

for patents and before the war he wrote

994

00:48:35,290 --> 00:48:31,880

to the United States government and said

995

00:48:38,950 --> 00:48:35,300

I have a plan for an antigravity machine

996

00:48:41,380 --> 00:48:38,960

I can develop anti-gravity and the

997

00:48:43,780 --> 00:48:41,390

United States said oh no you're just a

998

00:48:45,940 --> 00:48:43,790

wacky old man you're just crazy we're

999

00:48:49,240 --> 00:48:45,950

not gonna spend money on this so what

1000

00:48:51,820 --> 00:48:49,250

did he do he wrote to Stalin oh my

1001
00:48:53,710 --> 00:48:51,830
goodness and he also had the death ray

1002
00:48:56,650 --> 00:48:53,720
or something well that was the particle

1003
00:48:58,450 --> 00:48:56,660
beam in fact that was well before that

1004
00:49:00,870 --> 00:48:58,460
was all the way back in the 1930s in

1005
00:49:05,829 --> 00:49:00,880
fact in fact

1006
00:49:07,790 --> 00:49:05,839
Tesla became the the the the poster boy

1007
00:49:10,849 --> 00:49:07,800
for the evil genius

1008
00:49:13,400 --> 00:49:10,859
and if you go back and confined on

1009
00:49:17,720 --> 00:49:13,410
YouTube or some of the old Flash Gordon

1010
00:49:19,880 --> 00:49:17,730
serials the death ray that because Tesla

1011
00:49:22,430 --> 00:49:19,890
said if he had a very concentrated but

1012
00:49:25,910 --> 00:49:22,440
he invented particle beam-weapons and he

1013
00:49:27,859 --> 00:49:25,920

said that I can have a death ray that's

1014

00:49:30,650 --> 00:49:27,869

so powerful that it'll penetrate

1015

00:49:33,310 --> 00:49:30,660

anything and destroy anything well it

1016

00:49:36,620 --> 00:49:33,320

was never invented back in the 30s but

1017

00:49:42,980 --> 00:49:36,630

it did see the light of day back in the

1018

00:49:45,980 --> 00:49:42,990

1930s in one form Flash Gordon in the

1019

00:49:49,460 --> 00:49:45,990

Flash Gordon serials in the Flash Gordon

1020

00:49:53,180 --> 00:49:49,470

serials Ming the Merciless emperor of

1021

00:49:57,589 --> 00:49:53,190

the planet focused his death ray

1022

00:50:00,920 --> 00:49:57,599

on planet Earth and Flash Gordon had to

1023

00:50:03,829 --> 00:50:00,930

fly to and destroy the Death Ray

1024

00:50:06,470 --> 00:50:03,839

and so Tesla's death ray did see the

1025

00:50:10,099 --> 00:50:06,480

light of day in motion pictures isn't

1026
00:50:12,560 --> 00:50:10,109
that funny now one last thing I want to

1027
00:50:16,010 --> 00:50:12,570
talk about in going back to the tower

1028
00:50:19,460 --> 00:50:16,020
and Colorado that idea he was right to

1029
00:50:22,220 --> 00:50:19,470
the day he died he as far as I know he

1030
00:50:28,930 --> 00:50:22,230
truly thought that there was could be a

1031
00:50:32,240 --> 00:50:28,940
source of wireless power free power what

1032
00:50:35,210 --> 00:50:32,250
what how close did he get to that very

1033
00:50:37,099 --> 00:50:35,220
close he came so close that he couldn't

1034
00:50:40,250 --> 00:50:37,109
get the financing to facilitate it

1035
00:50:41,780 --> 00:50:40,260
because what because JP Morgan said I'm

1036
00:50:43,310 --> 00:50:41,790
not going to pay for it but yes he

1037
00:50:47,720 --> 00:50:43,320
believed that and in fact he had two

1038
00:50:50,150 --> 00:50:47,730

forms of wireless power and in fact this

1039

00:50:51,950 --> 00:50:50,160

even gets better because the forms of

1040

00:50:55,400 --> 00:50:51,960

wireless is one of those forms of

1041

00:50:59,660 --> 00:50:55,410

wireless power is now being used in

1042

00:51:02,990 --> 00:50:59,670

Australia by guess home Elon Musk and

1043

00:51:06,589 --> 00:51:03,000

Tesla in Australia in Australia here was

1044

00:51:10,400 --> 00:51:06,599

his theory if every house could have

1045

00:51:15,140 --> 00:51:10,410

powerful solar converters to take

1046

00:51:18,829 --> 00:51:15,150

sunlight convert the sunlight into steam

1047

00:51:21,120 --> 00:51:18,839

the steam would be or would generate

1048

00:51:22,799 --> 00:51:21,130

hydroelectric power

1049

00:51:27,499 --> 00:51:22,809

each house would have its own power

1050

00:51:30,779 --> 00:51:27,509

station that was his theory and and

1051
00:51:32,999 --> 00:51:30,789
that's exactly what Ellen Musk is doing

1052
00:51:34,950 --> 00:51:33,009
with his solar panels now it's not

1053
00:51:36,660 --> 00:51:34,960
generating steam it's going direct from

1054
00:51:40,170 --> 00:51:36,670
solar power to storage batteries to

1055
00:51:43,049 --> 00:51:40,180
energy its bypassing the steam but

1056
00:51:47,120 --> 00:51:43,059
what's so funny is that was the basis of

1057
00:51:52,710 --> 00:51:47,130
Tesla's invention isn't that something

1058
00:51:54,450 --> 00:51:52,720
and the part about getting I know

1059
00:51:56,519 --> 00:51:54,460
there's something like hi and I looked

1060
00:51:58,499 --> 00:51:56,529
this up one time because sometimes that

1061
00:52:00,420 --> 00:51:58,509
can be kind of a geek on things but I

1062
00:52:03,450 --> 00:52:00,430
forget how many lightning strikes there

1063
00:52:05,309 --> 00:52:03,460

are per day in the world but it's in the

1064

00:52:09,900 --> 00:52:05,319

millions it's like two million or

1065

00:52:11,519 --> 00:52:09,910

something do you think and any time in

1066

00:52:13,079 --> 00:52:11,529

the future would ever be able to harness

1067

00:52:15,450 --> 00:52:13,089

that power in any type of way I mean

1068

00:52:17,730 --> 00:52:15,460

that's out-of-the-box thinking but

1069

00:52:20,099 --> 00:52:17,740

that's what he was basically thinking

1070

00:52:21,480 --> 00:52:20,109

yeah just intermittent and hard to you

1071

00:52:26,910 --> 00:52:21,490

know hard to charge where it's gonna

1072

00:52:28,829 --> 00:52:26,920

happen it is but let's just say that you

1073

00:52:31,380 --> 00:52:28,839

had the ability to generate the kind of

1074

00:52:34,349 --> 00:52:31,390

electric charge right that the pole

1075

00:52:36,509 --> 00:52:34,359

differential that would send ground

1076
00:52:39,269 --> 00:52:36,519
lightning up and cloud lightning down if

1077
00:52:39,960 --> 00:52:39,279
you could do that but focus that in one

1078
00:52:42,690 --> 00:52:39,970
spot

1079
00:52:45,029 --> 00:52:42,700
store that power and massive storage

1080
00:52:48,599 --> 00:52:45,039
batteries that will not degrade the

1081
00:52:50,640 --> 00:52:48,609
power store it and then transmit that

1082
00:52:54,450 --> 00:52:50,650
power you would have free power from the

1083
00:52:55,920 --> 00:52:54,460
heavens yeah yeah well Bill as always

1084
00:52:57,420 --> 00:52:55,930
it's always a pleasure talking to you

1085
00:53:00,720 --> 00:52:57,430
and it's so great to meet you finally

1086
00:53:03,690 --> 00:53:00,730
yeah yes yes I get your emails all the

1087
00:53:06,660 --> 00:53:03,700
time it's wonderful I hear your show so

1088
00:53:08,549 --> 00:53:06,670

finally we get to do this in person yes

1089

00:53:11,370 --> 00:53:08,559

and do you have a website or anything

1090

00:53:13,259 --> 00:53:11,380

folks can go to Shadowland press comm

1091

00:53:15,329 --> 00:53:13,269

which is my website look at all of our

1092

00:53:18,120 --> 00:53:15,339

books buy all of our books they're all

1093

00:53:19,170 --> 00:53:18,130

available and but I wanted to leave with

1094

00:53:22,829 --> 00:53:19,180

this because I know that you're gonna be

1095

00:53:26,160 --> 00:53:22,839

talking to Bryce table yes right right

1096

00:53:27,749 --> 00:53:26,170

in a book that came out Tuesday called

1097

00:53:31,440 --> 00:53:27,759

UFOs in the White House

1098

00:53:34,440 --> 00:53:31,450

I'll just tease this it is the story of

1099

00:53:37,890 --> 00:53:34,450

why Mark David Chapman

1100

00:53:41,460 --> 00:53:37,900

killed John Lennon really yes

1101
00:53:44,849 --> 00:53:41,470
that's nothing to do with UFOs even

1102
00:53:48,089 --> 00:53:44,859
though even though part of the myth was

1103
00:53:50,579 --> 00:53:48,099
that because John Lennon had

1104
00:53:53,430 --> 00:53:50,589
communicated with aliens and they gave

1105
00:53:55,890 --> 00:53:53,440
him the alien egg to translate their

1106
00:53:58,410 --> 00:53:55,900
language which really was John Dee from

1107
00:54:01,620 --> 00:53:58,420
Elizabethan England to translate their

1108
00:54:04,260 --> 00:54:01,630
language that's why he was killed

1109
00:54:08,940 --> 00:54:04,270
it was something far more and more

1110
00:54:10,530 --> 00:54:08,950
mundane but far creepier Wow amazing all

1111
00:54:11,190 --> 00:54:10,540
right bill thanks again it was my

1112
00:54:13,829 --> 00:54:11,200
pleasure

1113
00:54:17,010 --> 00:54:13,839

all right that's it for the show thanks

1114

00:54:20,220 --> 00:54:17,020

so much for listening and we'll be back

1115

00:54:20,609 --> 00:54:20,230

next week with two guests on at the same

1116

00:54:24,390 --> 00:54:20,619

time

1117

00:54:27,150 --> 00:54:24,400

Derrick Gilbert and Josh Peck they've

1118

00:54:29,250 --> 00:54:27,160

written a couple books one is the most

1119

00:54:33,599 --> 00:54:29,260

recent one is called the earth or earth

1120

00:54:36,180 --> 00:54:33,609

stands still old gods behind ETS and

1121

00:54:38,490 --> 00:54:36,190

UFOs it's going to be a great show I

1122

00:54:40,740 --> 00:54:38,500

just have a gut feeling about that so

1123

00:54:42,710 --> 00:54:40,750

we'll be back at the regular time and if

1124

00:54:44,880 --> 00:54:42,720

you support the show thanks so much

1125

00:54:48,750 --> 00:54:44,890

remember anyone can do that just go to

1126

00:54:50,490 --> 00:54:48,760

podcast UFO calm and that's it for this

1127

00:54:53,590 --> 00:54:50,500

week thank you for listening and