All right.

Quick break to tell you about another podcast that we're interested in right now, HubSpot just launched a Shark Tank rewatch podcast called Another Bite.

Every week, the hosts relive the latest and greatest pitches from Shark Tank, from Squatty Potty to the Mench on a Bench to Ring Doorbell, and they break down why these pitches were winners or losers, and each company's go-to-market strategy, branding, pricing, valuation, everything.

Basically all the things you want to know about how to survive the tank and scale your company on your own.

If you want to give it a listen, you can find another bite on whatever podcast app you listen to, like Apple or Spotify or whatever you're using right now.

All right.

Back to the show.

All right.

So last month, Sam went down to Nashville for the podcast movement conference, and he did a fireside chat with John Lee Dumas.

You might know him as the host of the Entrepreneurs on Fire podcast.

And if you like my first million, you might like the Entrepreneurs on Fire podcast.

It's the same.

It's like inspiration and strategy around your entrepreneurial journey and helps you create the life you've always dreamed of.

That doesn't sound too bad, does it?

All right.

Well, guess what?

It's also part of the HubSpot podcast network.

That's who brings you our show and other great business shows.

So if you want to listen, learn, and grow, go listen to Entrepreneurs on Fire.

It's on the HubSpot podcast network.

You can find it at HubSpot.com slash podcast network.

All right.

We have a special episode by Ben Wilson.

This is a three-part series on Thomas Edison.

We discovered this podcast about two or three months ago and freaking loved it.

It had very small listenership.

Both Sean and I binge listened to all of them.

His name is Ben Wilson.

The podcast is called How to Take Over the World.

Ben has allowed us to air this episode and the next two.

So this is a three-part series on Thomas Edison.

He's allowed us to air it on our feed just because we like it.

So his podcast, it only had a few hundred listeners at the time, but we thought this

was so cool, Sean and I, and it's about a similar topic that we talk about.

So we have this segment called Billionaire of the Week.

This one is on Thomas Edison.

We loved Ben's podcast so much.

We just said, hey, man, let us just air this on our feed because it's so good.

So it's called How to Take Over the World.

This episode is on Thomas Edison.

He's got a few other episodes or a few other folks on his feed.

He's got Thomas Edison, I believe he has Alexander the Great, the Rothschilds family.

It's really, really cool.

I'm a history buff.

And so I'm happy that he was cool and let us air this.

We're doing it none other than just we think it's good and we want you guys to check it out

So here it is.

Enjoy the episode.

There's part two and part three on our feed.

Check it out.

I'm going to show you how great I am.

I just want to say from the bottom of my heart, I'd like to take this chance to apologize to absolutely nobody.

Hello and welcome to How to Take Over the World.

This is Ben Wilson.

Before we get into the episode today, I do want to say a big thank you to everyone who has left reviews on Apple Podcast.

We just got over 100 reviews and those do a ton to surface the podcast and help other people find it.

So thank you.

I really appreciate the support.

Also all of you who've been sending me emails of support and letting me know how much the podcast means to you.

It means a ton to me to hear from you when you send me those emails and those messages. So thank you.

I appreciate it and it really does help fuel me and keep this going.

This is a new kind of episode.

It's going to be a little bit more free flowing, a little more relaxed, a little more loose.

Where this came from was I was looking at all of my notes that I had written for the

Thomas Edison episodes and I realized that I had about 60 pages of notes and I had used about 30 of them for the two episodes, which meant I had nearly half of my work go unused.

So I thought to myself, why not use that in some form or fashion?

So these are notes.

This is stuff about Edison that didn't really neatly fit into the narrative, but I still thought was interesting.

So it's going to not have the same structural flow.

It's not necessarily going to follow his life in chronological order.

It's literally just kind of a stream of consciousness of some things that I thought as I was studying the life of Thomas Edison.

So I wanted to start off talking about what is by far one of Edison's most underrated inventions and that is the word hello.

If you think I'm joking, I'm not.

I double and triple check this just because it seemed so unbelievable to me, but it's

true Thomas Edison invented what is now one of the most fundamental words in English language.

Before Thomas Edison, when people saw each other, they would say greetings, good day, salutations.

I don't know.

They said other things.

They generally did not say hello.

It did exist as a word.

It was pronounced differently.

It was pronounced usually halloo and it was usually used as an expression of surprise.

So you can hear that still sometimes that someone, I don't know, for whatever reason, I think of it in a British accent, someone saying hello, you know, like they get surprised by something.

And that was the way that this word halloo was used as an expression of surprise.

But then in the old old days of telephones, when they were essentially still used as tool for telegraph operators, they needed a way to get each other's attention because

they didn't have ringers yet.

So really they just had open lines between telegraph stations.

So if you needed to get in contact with someone, you just shouted and so they needed something to shout.

Alexander Graham Bell suggested the word ahoy.

I would love to live in the alternate universe where that becomes the standard greeting between people.

But Edison suggested that they use this word halloo, but that was, you know, the vowels are kind of soft.

It didn't carry that well.

So he changed the vowels to hello because you can shout that really easily and be heard really easily.

So telegraph operators start using this when they want to be heard from station to station.

So hey, I've got a message for someone.

I pick up the telephone and I yell hello, hello until someone picks up and then I give them the message.

Of course, when telephones made their way to the general population, then people started using that in their homes when they picked up the telephone, hello.

And then it just made its way into the language as the default greeting, hello.

And so that word traces its roots directly back to Thomas Edison.

I think that's just indicative of the way that Edison has had a huge impact on all of our lives in a way that we don't necessarily think about and we often take for granted. Okay.

Let's talk really quickly about the Edison versus Tesla angle, something I've received a lot of questions about.

As I mentioned in the last episode, Tesla started working for Edison in 1884.

He got right to work on a problem on a dynamo on a boat that Edison had been having a lot of problems with and he stays up all night and he's able to figure out the problem and solve it.

So Edison supposedly remarks to Bachelor, this is a damn good man.

So he had good things to say about him then.

He had good things to say about him throughout his career.

They respected each other as geniuses.

Of course, Tesla was very inspired by Edison, as you might recall from last episode.

They did have a falling out when Tesla stopped working for Edison.

There's a disagreement about money.

Essentially Tesla thought that Edison had promised him \$50,000.

Tesla is this new immigrant and he's just off the boat.

He goes in for his first meeting with Edison and they're talking about stuff and Tesla says, well, what happens if I invent something that even you can't invent?

And Edison goes, look buddy, if you can invent something that I can't invent, you can have \$50,000.

Edison is joking.

He was not flush with cash at this time.

He didn't have \$50,000 to give, but Tesla is a very recent immigrant.

His English is not great and he doesn't get the joke.

He thinks that Edison is serious.

All he hears is, whoa, if I invent something that Edison can't or hasn't, then I get \$50,000.

So when he does, because he's a genius himself, he invents something that Edison didn't invent.

He goes and says, where are my \$50,000?

And Edison says, there are no \$50,000.

That was a joke.

And Tesla leaves in a huff, but they didn't exactly reconcile.

They were never like friends, but they were cordial throughout their careers.

And I think Tesla came to understand that Edison wasn't serious and he had misinterpreted this because Tesla did have kind things to say about Edison, which you wouldn't expect if he felt like he was truly ripped off by a dishonest man.

They did have tremendously different approaches, which they talked about sometimes.

And look, they were rivals.

They were both competitive guys who took a lot of pride in their work.

Tesla said of his approach, quote, I did not need any models nor drawings or experiments. I could do it all in my mind.

The way I unconsciously developed a new method for materializing inventions and ideas is exactly the opposite of the purely experimental method of which undoubtedly Edison is the greatest and most successful exponent.

I liked one quote that described their differences that said, quote, Tesla's was a more original genius than Edison.

He surrounds himself with a halo of electric light and calls purple streams from the soil.

His aim is to hook man's machinery directly to nature's.

And I think that statement that Tesla's was a more original genius than Edison is certainly accurate from a certain viewpoint.

I think Tesla was probably smarter from a pure IQ horsepower standpoint than Edison was. But you know, obviously Edison had the more successful career had more inventions, which is why I always say that energy and work ethic matter more than intelligence in the long run. I also think that Edison's approach, which was this experimental method rather than Tesla's more theoretical way of doing things is a better approach.

And I think that's another reason why Edison had more success despite probably on an objective level being less intelligent than Tesla was.

I think one thing that kind of demonstrates the difference between them is an incident in 1895, Nikola Tesla saw his entire lab burned down, much as you'll remember Edison did. And Edison was very sanguine about seeing his lab burn down.

Tesla was not.

He said, and I quote, I am in too much grief to talk.

What can I say?

The work of half my lifetime very nearly all my mechanical instruments and scientific apparatus, everything is gone.

I must begin over again.

So you can see from that that Tesla, even though he was a genius, probably didn't have quite the same grit and determination that Edison did.

Not quite.

He did start over again.

And so I would say he did have a lot of that.

But Edison was sort of extraordinary in that regard.

And to speak to their relationship a little bit, Tesla also said after this great fire at his lab, quote, I have received a letter from Mr. Edison offering me the use of his workshop in which to continue my experiments.

He has shown me the greatest kindness and consideration.

I do not think, however, that I will accept the offer.

So anyway, it was a competitive, but also a sort of friendly relationship.

I like to think of it as like Professor X and Magneto or something like that.

Speaking of Tesla, I find it hilarious that Elon Musk named his company Tesla because

Elon is so much like Edison in big ways and in funny little ways as well.

Both spent time in Canada in their teenage years, but then became successes in the United States.

Both are known for their tireless work effort and a demanding leadership style.

Both are known for wanting to control every aspect of sourcing and manufacturing.

Both made meaningful contributions to battery technology.

One of Edison's biggest dreams, actually, that he never got to see through was he wanted to create an electric car, a mass market electric car.

Of course, Elon did popularize the electric car.

Both are definitely experimentalists rather than, you know, theoretical guys.

The story about Elon that reminds me most of Edison was when Elon started the Boring Company.

I don't know if you've heard this, but the Boring Company is Elon's company for digging tunnels.

He one day has to go into work and is just so frustrated by the traffic in Los Angeles where his company is based.

And so he decides, you know what would be logical?

Rather than having to compete with all this traffic, just having tunnels so that we could go underground and avoid all that traffic.

So what does Elon do when he has this idea?

He starts the Boring Company and literally just starts digging a hole in the parking lot.

And then starts digging and digging and then they start digging over and they just kind of as they go start figuring out better and better technology for digging these holes and digging these tunnels.

And that's kind of how Edison would do it too, you know.

First just start experimenting, start figuring it out and eventually you'll figure it out rather than, you know, sit down with some textbooks and try and figure out from a theoretical standpoint what would be best.

It also, their similarities get down to smaller stuff too.

You know, I mentioned their time in Canada, also, you know, in contrast to Tesla's very well known celibacy, both Edison and Elon have had multiple children by multiple women. Both even kind of look alike if you ask me.

So anyway, I thought these similarities are too much.

I'm sure someone has to have asked Elon about it, right?

And so I went Googling, I looked and sure enough, Elon did an interview and here's what he had to say about his relationship to Edison in an interview.

As far as role models, I think, you know, there's obviously some of the obvious role models.

I think Edison was certainly a role model, probably one of the biggest role models.

Did you study Edison's life?

Yeah, I read books about him, absolutely.

And it's an interesting contrast like Edison versus Tesla, because interesting, you know, the car company is called Tesla.

And the reason it's called Tesla is because we use an AC induction motor, which is an architecture that Tesla developed.

And the guy probably deserves a little more play than he gets in current society.

But on balance, I'm a bigger fan of Edison than Tesla, because Edison brought his stuff to market and made those inventions accessible to the world, whereas Tesla didn't really do that.

So that's, so he certainly be a big one.

So there you go.

I think that Elon is probably the closest living thing that we have to Edison.

And you know, he acknowledges that he takes some inspiration from Edison's life, which is not surprising to me.

Speaking of comparisons, obviously another easy comparison to make is with Steve Jobs.

Both had a propensity for starving themselves and for weird diets.

Steve Jobs would have periods of his life where he would only eat apples.

And Edison had a period in his life where he would only drink milk.

That's the only food or drink that he would consume.

So that's, again, kind of a weird similarity between the two.

They also had this flair for showmanship that was very akin.

And then another connection that I just think is funny is that Edison did not invent, but he did perfect the telephone.

And similarly, Steve Jobs did not invent the smartphone, but he kind of perfected it and made it this new mass market thing with the iPhone.

And when Steve Jobs introduced the iPhone, he did so with a commercial called, what else? Hello.

This commercial featured famous movie moments where people answer a phone and say hello, and then it shows the iPhone and just says hello on the screen.

And I'm sure that it was unintentional to pay tribute to a word that Edison invented,

but I find it meaningful in a cosmic sort of way that he did kind of accidentally pay tribute to Edison.

Okay, other notes.

Okay, so Edison was like a classic mad scientist.

He was always blowing himself up, poisoning himself.

He nearly killed himself all the time.

So he nearly choked himself on poison gas.

He nearly radiated himself to death with X-rays.

He nearly blinded himself by staring at lights.

He electrocuted himself multiple times.

He set himself on fire, burned himself with acid.

He held things that blew up in his hands, including tons and tons of light bulbs.

In fact, it's my conspiracy theory that he probably made himself death with an experiment gone wrong.

The famous quote that he had about when he went death is he said that he hadn't heard a bird chirp since he was 12.

And I find it odd that he targeted it to that exact date.

And the story about what did make him death was kind of always changing, right? There is no good answer.

Different diseases, different conditions were put forth, and Edison himself said different things.

But, you know, he said, I haven't heard a bird chirp since I was 12 years old.

And that's right when he was starting to get all these chemistry experiments and experiment in his basement.

And there are reports.

He said, his mother said, that he blew out the windows in the basement multiple times.

He was always blowing stuff up and blowing out the windows.

And of course, that's what he did on the train that got him kicked off the train.

So it's my, I think it's kind of a conspiracy theory, I guess, because I haven't heard anyone

else say this.

But I think it's possible that he at least made his deafness worse by blowing out his eardrums in an experiment when he was a young boy, when he was 12 or 13 years old. So there you go.

But I just find it funny that he was like this classic mad scientist who was nearly always killing himself.

His hair was always, you know, singed and standing on end.

He was that like classic mad scientist experimenting blowing stuff up.

Some of my favorite quotes that I didn't get to put in a famous Edison quote that he would say all the time is, all things come to him who hustles while he waits, which I think is something good to remember.

All things come to him who hustles while he waits.

A quote from someone else, an MP from Ireland named TP O'Connor said, quote, he's like a great schoolboy.

The simplicity of genius was never before so remarkably illustrated.

And I like that the simplicity of genius.

And I like to think about that sometimes that genius does not come from being involved in all these things and being able to be everyone everywhere.

No genius comes from simplicity, comes from focus on a single thing and becoming the best at that one thing.

One other quote that I liked was from Francis Upton who said, the one great impression of my years in Menlo Park was how impenetrable the veil of the future seems to be when new problems are to be solved and how simple the result often is when the darkness of ignorance is lighted by the genius of one man.

One story that I had to cut that I really liked and actually probably wish I had left in is from the time when he was demonstrating his light bulb in New York City.

And it's in this great concert hall and the dynamo is not yet perfected.

There's no power grid.

So how is he powering this thing?

Well, next door, they literally have a coal burner that they're using to generate electricity.

And so at some point during the demonstration, the lights start to go a little bit dim.

And so Edison's going, I don't know what's going on.

So he goes next door and the guy who was on the job had fallen asleep, who was supposed to be loading coal to keep this thing fired, to keep this thing powered, to keep the lights on next door.

And so Edison, you know, takes off his jacket and starts shoveling coal to keep the lights on

I like that story.

It demonstrates kind of how hands on and how basic the technology was, right? And I just think it's cool to think about that era of technology and everything was so tactile and kind of hands on.

The average podcast listener has six shows in their rotation.

So you're most likely not just listening to my first million.

If so, I want to make another suggestion.

I want to share a podcast that I've been listening to.

The show is called the Jordan Harbinger Show.

So Jordan is my home.

He's a great friend of mine.

Jordan's one of the guys who helped encourage us to launch his podcast.

He's giving us a ton of feedback on how to grow, how to make the content amazing.

And his show is awesome.

I became friends with him because I started listening to show and I reached out and it's very fascinating.

He dives into the minds of some very, very interesting people.

So authors, scientists, CEOs, mobsers, he's got a gift.

Kind of like Sean does, to be honest, of getting guests to share never heard before stories.

Very cool.

Very fascinating.

A few of my favorite episodes are episode 117 with Robert Green.

I've talked about Robert Green's books all the time in this podcast is one of my favorites.

And then episode 498 with Rob Dierdek, who's coming on our podcast actually a month.

So you can't go wrong with adding Jordan Harbinger show to your rotation.

Check it out.

Search for the Jordan Harbinger show.

That's H-A-R-B-I-N-G-E-R on Apple Podcasts, Spotify, wherever you get it.

Check it out.

He's awesome.

I love him.

One other kind of small story, speaking of tactile and hands on that I didn't get to mention was, you know, Edison is doing all this work on the phonograph and he can barely hear.

And especially late in life, he's working on perfecting the phonograph and coming out with new versions of it.

And at this point, this guy is really deaf.

I mean, really cannot hear much.

People have to shout into his ear in order to be heard.

So how does he hear the music that's coming out of his phonograph?

How does he know if it sounds good or not?

And so what he would actually do is they had, you know, wood casing and he would bite the wood and the sound would vibrate through his teeth into his skull.

And that's how he would hear.

And the consequence of this was that's a different way of hearing, right?

It just sounds different.

And so the decisions that he made about the phonograph and about the music that was being played on it were kind of bad.

But he was so confident that he understood, he knew what sounded good and what didn't sound good that he insisted on making those decisions, even though he had this really weird way of listening to the phonograph, of biting the phonograph, of biting the wood

around it.

Next, my review of The Current War, which is a movie that came out last year.

I think it came out late 2019.

That is about the rivalry between Edison and Westinghouse and features Tesla very heavily.

So it's supposed to be kind of historical fiction, right?

And so I guess I'm not going to discuss every historical inaccuracy of the movie because I just don't want to be that guy.

There are a lot.

So just know that so that if you're watching it and you say, whoa, it says that Edison's wife died of an incurable brain disease.

But I heard on How to Take Over the World that she died suddenly of a morphine overdose.

I'm right.

The movie's wrong.

It's just, I don't begrudge them that it's a movie.

They have to make it an interesting narrative.

So they deviate a lot.

A lot of the dates are wrong.

A lot of the people are kind of, they have to mash them together and all sorts of stuff.

So I'm not going to correct every single historical inaccuracy, but just some things I guess overall, some thoughts I had.

Number one, they make Edison this amazing family man.

And as I've told you, he was really doting and loving towards his wife and children,

wives and children, but he was never home.

I mean, he was at the office.

He was at the workstation all the time.

And so especially his second wife, Mina, would talk about how she would bring her children and go in to see Edison.

She'd be so mad at him, but he had this like charm thing that if you hear people talk about really charismatic people, I've heard people say this about Bill Clinton, who's a former president of the United States, that he would, he can turn this charm on and he just focuses all his attention on you like a laser beam and people who hate him, who hate his guts, just find themselves instantly one over.

And Edison had this too.

Mina would go in and she's mad because she hasn't seen him in like two weeks.

He's been sleeping at the office and he just hasn't come home.

She's mad and she walks in there with her kids say, Hey, look at your children.

Say hi to them.

Spend some time with them.

And he just shifts all his attention to her, Mina, I'm so happy to see you.

And immediately the anger is gone.

He melts her.

And so he was this like really super loving doting husband and father when he was around, which was like never.

So anyways, I think the movie probably makes him seem a little more present than he actually

was.

Another thing that's funny to me, I just have to point this out, Samuel Insel, in the movie, they make this like meek little secretary who is Edison's pawn and does whatever Edison wants.

Edison actually at various times felt very betrayed by Insel because he became this mega millionaire in part by doing some stuff, some business decisions that probably had to be made, but he cut Edison out of a lot of the decision making at General Electric.

And he was like a very strong personality who kind of took no prisoners.

And so it's funny to see him portrayed as this like, yes, sir, yes, Mr. Edison, whatever you want, sir.

And just on the nature of personality, like I just think they make Edison in the movie seem to adapt at social situations.

I don't think they quite got right the like addictive nature of Edison's personality that if he was doing anything except for inventing, he was just he wanted to get it out of the way.

He wanted to get back to inventing.

Another weird thing about the movie is their insistence that no one died from alternating current except for people who were executed in the electric chair.

I was just not true at all.

I mean, in the early days of electricity, when they were stringing up wires, people died relatively frequently.

People died all the time from electric power.

It was a new and dangerous technology.

So I'm not sure why the movie went that direction.

And they also don't get into what was a huge part of the war between Westinghouse and Edison, which was a patent lawsuit.

Westinghouse lost the patent lawsuit and had to pay Edison \$15 million for violating the basic light bulb patent, which essentially took the current wars, as they call them, this war between Edison Electric and Westinghouse.

Westinghouse was destroying Edison.

And then Edison wins this patent battle and Edison has to pay him \$15 million, which is a ton of ton of money, which kind of turns it into a draw.

So I find it funny that they didn't mention that patent lawsuit, but that was also an important part of it.

One thing that they do demonstrate I didn't talk about was Edison's assistance in developing the electric chair.

William Kemler was the first man given the electric chair, and it was a disaster.

They thought it would be like this quick painless thing, flip the switch and boom, he's dead. Instant painless, great.

What actually happened was they flip the switch and it took two minutes to kill the guy.

The body hair on his body was singeing off and it was making people sick.

Spectators were starting to throw up who had come to watch and observe the execution. And it just like, it was gruesome.

The way that he eventually died, like essentially they fried him.

That's how he died from like being cooked, from being heated up from the inside out.

So really, really gruesome.

They kind of worked on it.

The higher voltages electric chair did eventually, I guess, get a little more humane.

But not much.

There's a reason that people don't die really from the electric chair anymore.

It was not a great form of execution.

Probably not exactly a proud moment of Edison's life that he worked on that.

One question that people have asked me a couple of times was about his marriages.

And his marriages were not the happiest because he was around so infrequently.

His wives sometimes felt a little bit abandoned, which is obviously very easy to understand.

I would say that his first marriage was worse because Mary didn't know what she was signing up for.

Right.

Edison wasn't famous at the time.

So he kind of charmed her.

She said, yes, she marries this guy and all of a sudden she's thrust into the spotlight of being married to this world famous man.

And he's never around and she didn't know that was going to be part of the equation.

Because Mina, when she married Edison, he was already famous and she knew what she was signing up for.

Maybe not the extent of it.

She was certainly still annoyed frequently that he was not around as much as she would like.

And it's just difficult to deal with celebrity and she was in the spotlight a lot.

But you know, I think she dealt with it better than Mary for that reason.

She kind of knew what she was getting into.

His children, his sons from his first marriage, William and Tom, were they were a thorn in his side for his whole life.

They were always making trouble, they embarrassed him.

They married kind of disreputable women.

They would make all these claims that, you know, especially Tom Thomas Edison, Jr. would sell the rights to his name because, you know, then people would just take any old invention and say, you know, this is the Thomas Edison and then very little letters, Jr. This is the Thomas Edison lamp.

This is the Thomas Edison, whatever, and, uh, and try and scam people into buying it.

These kind of low quality products.

So Tom was going around selling his name.

Edison had to like threaten to sue his son to get him to stop.

So yeah, William and Tom troublemakers never really made much of their lives.

His sons from his other marriage were much more helpful.

So Charles was one of those sons.

He was like the most interesting man in the world.

He was not only a very successful business executive, he wrote poetry and composed songs

and was, was kind of a ladies man early in his life.

He eventually became the governor of New Jersey and he was the CEO of Edison Inc. for a while and was a very successful CEO, did well and, uh, had a working relationship with his father.

His other son Theodore was the only son who really followed his dad's path in becoming an inventor and Theodore, while not as prolific as his father was a very gifted inventor, had over 80 patents, I think in his life.

So he did well for himself as well.

In terms of the daughters, Marion, who was a daughter from his first marriage, married a guy in Germany and that marriage didn't last.

So eventually she came back to the United States, never had children, never had a career.

So her life was, was a little bit sad.

And then his daughter Madeline from his second marriage was very intelligent, very ambitious. She was actually probably the most like Thomas Edison, frankly, did not have a career, decided to get married instead.

She married a very successful airplane manufacturer, successful businessman, and she had four children of her own.

She's actually the only Edison grandchild to have children, which is kind of funny to me that five of his six children did not have children of their own, but, uh, but Madeline did.

Um, another similarity to Elon Musk, Thomas Edison was very interested in solar power and figuring out how to harness it and store it.

And Edison was something of a environmentalist.

They didn't really have environmentalists back then in the same way that we do now.

Uh, it was kind of just emerging as a school thought, but, uh, listen to this quote from Edison.

I think it's interesting.

He said, quote, someday some fellow will invent a way of concentrating and storing sunshine to use instead of this old absurd Prometheus scheme of fire.

I'll do the trick myself if someone doesn't get at it.

This scheme of combustion in order to get power makes me sick to think of it is so wasteful.

We should utilize natural forces and thus get all of our power.

Sunshine is a form of energy and the winds and the tides are manifestations of energy.

Do we use them?

No, we burn up wood and coal as renters burn up the front fence for fuel.

We live like squatters, not as if we owned the property.

There must surely come a time when heat and power will be stored in unlimited quantities in every community all gathered by natural forces.

Electricity ought to be as cheap as oxygen for it cannot be destroyed.

End quote.

One other thing that I thought about interesting, someone has a quote.

They mentioned the peculiar nocturnal brightening of the human owl.

And yeah, I like this idea of referring to Edison as a as a human owl.

Not only did he work really weird hours, really late hours, but he actually did some of his best work between the hours of like 10pm and 6am.

And I don't know particularly why that is, but I do think that he got some sort of high off of working when other people were not working.

There's a famous quote I've heard that I like.

I've heard it variously attributed to so I don't know who really said it first.

But the quote is, when you are not practicing, remember, someone somewhere is practicing.

And when you meet him, he will win.

And so I think that Edison probably felt that way.

It sure seems like it, that any moment he wasn't inventing, someone else was.

And so he wanted to make as few of those moments as possible.

He wanted to be there at the lab bench when no one else was.

And if that seems totally unsustainable, it is, if you don't do it right.

Or Edison didn't just work all the time.

He did work all the time for long stretches, but then he would also take these multi-week vacations out west or down to Florida.

And so I do think it's important to think about that, of meta balance.

I think that probably balance in any given day is overrated.

You don't necessarily need to eat a balanced breakfast and work out every day and do yoga and meditation and all these things that people tell you you should do every day.

I don't think you necessarily need to, but it's important to balance it out over time.

So if you're going to be a workaholic for a week or two, which is something I'll often do, especially when I'm training out these episodes, you know, I just will not sleep much and I'll do my day job and then I'll straight go to working on this and go to bed really, really late, wake up really, really early, but then I'll spend the weekend sleeping a lot, a lot, a lot and just relaxing and doing nothing.

And Edison kind of did this in the most maximalist sort of way.

He just worked all the time, all the time.

And then when he went on vacation, he went for weeks and sometimes months.

One small note, Edison went on a grand tour of Europe with his family.

And one of the things that he commented was that Europeans were too fat.

He was disgusted by how, you know, grotesquely obese, how fat all these people were, which to me is just so funny that Americans were criticizing how fat Europeans were a hundred years ago, oh, how the times have changed.

One other kind of small note, I guess I wanted to make is that Thomas Edison's mother homeschooled

him, educated him, and to me was kind of the perfect example of a Puritan woman.

So if you don't know, Puritans were this religious sect that came from England, settled in New England, the area we now know as New England, kind of started in Massachusetts and spread out from there, and they were very, very religiously observant, extremely strict, and very highly educated.

You can look them up.

They're the pilgrims that you hear about sometimes if you live in America, the people that were there at Thanksgiving, right?

Those are the Puritans.

And Edison comes from very, very Puritan stock.

And his mother was the daughter of a Methodist minister.

So yeah, like very, very Puritan.

And I commented this to someone that Edison's mom was like the perfect Puritan woman, super educated, always teaching him.

And they went, whoa, Puritan women were educated.

I thought that they were super oppressed and underlocked and key because of Handmaid's Tale.

And I guess they use kind of like Puritan imagery in Handmaid's Tale.

I don't know.

I haven't seen the show, so I'm not going to criticize it too much.

But I do just want to comment that if this is something that is portrayed in Handmaid's

Tale that Puritans were somehow extremely oppressive of women.

I mean, Puritans were just like oppressive, right?

They were super, super strict in a lot of different ways.

But it was one of the peculiarities of their culture that Puritan women were highly educated.

It was very egalitarian society.

And so that's just not accurate.

I think that's a misconception that a lot of people have.

And the other thing about Puritans, I mean, I think Edison is like the end result of a couple hundred years of like Puritan interbreeding because Puritans were obsessed with working.

These people just thought that was how you demonstrated, you know, your faith in and belief to God was hard work.

And they really valorize that in their culture.

In Puritan society, it was a crime to do nothing like literally you could just be doing nothing and that was a crime because you weren't working, right?

So you get a couple hundred years of Puritans intermarrying and hand having this culture.

And then you get the daughter of a Methodist minister, you know, from Puritan stock.

She marries another Puritan.

She has a son.

And then you have this guy who is completely obsessed with working, right?

He's a complete, he's a workaholic and invents his whole life.

So, you know, I don't think it's an accident that Edison was like this when you take into consideration where he came from and the culture and the history of the Puritan people.

And if you want to learn a little bit more about this and how kind of Puritan culture in some ways still shapes America, a really interesting book is called Albion Seed that talks about that.

I highly recommend it.

But yeah, Thomas Edison, super Puritan, even though he wasn't religious, super Puritan.

A couple of other things, one is industrial sabotage, industrial espionage.

Both were extremely common during Edison's time.

So you know, inventing the light bulb, especially when he's having public demonstrations, people from Westinghouse, people from other companies are just walking into Menlo Park and just unscrewing light bulbs and taking them.

And in fact, it gets, it gets really bad.

They have these public demonstrations and they can't tell the difference between Westinghouse people who are stealing them for espionage purposes and just, you know, bystanders who want a souvenir and take the chance to lift Edison light bulb.

But this was a big problem.

It was a different time.

Like during the current wars when Westinghouse and Edison are both trying to electrify New York City, you know, it got really, it got dirty, you know, with people intimidating each other and beating each other up and, and business was really like bare knuckles back then.

That's not something I talked a lot about because Edison himself didn't have a lot of involvement in it, but I do think it's a really interesting aspect of that time period.

And if you want to learn more about it, the book, the current war is, is good.

And so is last days of night is another interesting book about that time period.

The last thing, and then I'll end on this, even though it's kind of early from his life, is a quote from Edison.

So his very, very first invention, the first thing that he successfully patents is the electric vote recorder.

And so Edison is a nobody, right?

So how are you going to make an electric vote recorder to show off for the patent office? He has to make it.

And so he literally has to, you know, the casing for the thing.

Of course you can do the electronics.

He's a telegraph operator.

He's working with electronics all the time, but he has to like carve the casing for this thing.

So he does.

He carves the wood and makes the casing for this thing.

And he has a quote that he said later in life.

He said, to become a good inventor, you must first know how to use a jack knife.

In other words, like, you got to know how to do the nitty gritty dirty details of inventing.

You can't just sit there with your head in the clouds and think up new things, right?

Get out the knife and start carving wood.

And that reminded me a lot of a quote from Pablo Picasso.

He said, quote, when art critics get together, they talk about form and structure and meaning.

When artists get together, they talk about where you can buy cheap turpentine.

And I think that's very true.

So if you want some parting advice on the life of Thomas Edison, I think it's, you know, make yourself useful.

Don't be one of those people who thinks about form and structure and meaning.

And I always have my head in the clouds because I am a big thinker, you know, learn a skill, be useful to other people and build off of that, build your way up.

Okay, that's it.

This was a little bit rambling, a little bit different.

Let me know what you thought.

In terms of the future, we've got some Catherine the Great episodes coming. I'm finally turning that into a full series.

And then Alexander the Great after that.

Until then, thanks for listening.