

## **Sidedoor Season 4, Episode 11: Dynamite!**

[Intro Music]

Lizzie Peabody: This is Sidedoor, a podcast from the Smithsonian with support from PRX. I'm Lizzie Peabody.

[MUSIC]

Lizzie Peabody: I need to warn you. This episode begins with a bang.

Dr. John Harkless: Oh, so it may be a dud.

[EXPLOSION SOUNDS]

Lizzie Peabody: (Gasps) Oh my God.

Brian Balogh: Whoa!

Lizzie Peabody: Whoa!

Dr. John Harkless: Okay. Well, uh, it worked.

(Laughter and Applause)

Dr. John Harkless: So, a whole stick of dynamite, imagine multiplying it by like 30 or 40.

Lizzie Peabody: Hooph!

Brian Balogh: 30 or 40 from that?

Dr. John Harkless: Yeah.

Brian Balogh: Wow!

Dr. John Harkless: (Laughs)

Lizzie Peabody: Yes, that was an explosion. Yes, it was surprising, and yes, this episode is going to be a little different from the usual. In this episode, we're teaming up with Backstory, a history podcast from Virginia Humanities, to revisit an incredible invention: dynamite. And here to help me with that is Brian Balogh, a historian and one of the hosts of Backstory.

Lizzie Peabody: So, Brian, I was really glad that you were able to take the trip up to D.C. from Charlottesville, um, for this.

Brian Balogh: Oh, I had a great time.

Lizzie Peabody: We headed over to Howard University to visit Dr. John Harkless. He's a Chemistry Professor there and he had orchestrated an explosion just for us. We met him outside on the quad...

[MUSIC]

Lizzie Peabody: ...this beautiful grassy space between classroom buildings and a crowd of students had gathered there to watch Prof. Harkless launch one of those small office trash cans into the air, using pressurized liquid nitrogen.

[MUSIC]

Brian Balogh: So, it wasn't actual dynamite. But Prof. Harkless explained that all explosions basically amount to the same thing: a sudden release of energy.

Dr. John Harkless: So, what you just heard is one of the ways in which explosive energy gets released. If you release it slowly, then you get something nice and easy, like burning gasoline to make your cars go or generating electricity that makes all our devices work, uh, from our batteries. But if you're releasing it really quickly, then you can get heat, you can get light, you can get pressure.

Lizzie Peabody: In the case of dynamite, a lot of heat, light, and pressure.

Brian Balogh: Well, most people know dynamite as the little red sticks with fizzing fuses brought to us by Looney Tunes...

[Looney Tunes Road Runner and Coyote with Dynamite Sequence]

Brian Balogh: ...but I'd guess not many people know why it was such an important invention.

Lizzie Peabody: And how it shaped the country in pretty unorthodox ways. So, this time on Sidedoor, we bring you two tales of dynamite. One, the story of how sculptors harnessed its explosive power to create a nuanced work of art.

Brian Balogh: And the other, how it was seized by a political movement to send a rather unsubtle message.

[MUSIC]

Lizzie Peabody: Great! You ready Brian?

Brian Balogh: Let's go!

[MUSIC]

Lizzie Peabody: We're back. And to start, we wanted to get more context on when and why dynamite was invented and its impact on the United States.

Brian Balogh: And what better place to go than the Smithsonian's National Museum of American History?

Lizzie Peabody: Peter, it's so good to finally meet you!

Peter Liebhold: Thank you. Nice to meet you.

Brian Balough: Hi. Brian Balough.

Peter Liebhold: Nice to meet you.

Brian Balough: Glad to meet you, Peter.

Peter Liebhold: Come on in.

Lizzie Peabody: Peter Liebhold is a Smithsonian curator of technology and industrial history and he says, to understand dynamite, you have to understand what came before it: an extremely volatile explosive called nitroglycerine.

Peter Liebhold: Nitroglycerin is incredibly more powerful than black powder. Um, if you look at the history of nitroglycerine, people are constantly being killed.

[MUSIC]

Brian Balogh: Nitroglycerine was invented in 1847, about 20 years before dynamite. At the time, it was the only high-power explosive around. Explosives have been around since 9th century China, but black powder and gunpowder didn't pack nearly the punch that nitroglycerine did.

[MUSIC]

Lizzie Peabody: That made it incredibly valuable at a time when the country was expanding rapidly. The transcontinental railroad was under construction, so being able to blast tunnels through rock quickly was incredibly important. But here's the thing, nitroglycerine was really hard to transport. Liebhold told us about this one time when a shipment of nitroglycerin arrived in a warehouse in San Francisco.

[MUSIC]

Peter Liebhold: And um, it's just a crate and it's leaking, so they decide to open it up and see what's leaking. They were opening the crate with crowbars, and it detonated and it killed I think about a dozen people. Really, very horrific.

[MUSIC]

Brian Balogh: A local newspaper, The Stockton Daily Independent, reported on it. "The wood-work of Wells, Fargo & Co.'s establishment was almost wholly blown to fragments, and even doors thrown out into the street. Fragments of human remains were found scattered in many places. A human arm struck the 3rd story window of the building across the street."

[MUSIC]

Lizzie Peabody: It was pretty gruesome.

[MUSIC]

Peter Liebhold: People definitely didn't understand it. It's fine, when it's fine and when it's not, you're gone. And so, it really, um, it's not forgiving.

Brian Balogh: Engineers needed an explosive that was as powerful as nitroglycerine, but safer to handle.

[MUSIC]

Lizzie Peabody: Enter Alfred Nobel. Yes, the Nobel Prize guy.

Peter Liebhold: Right. Alfred Nobel is, by anybody's description, a weird dude. He's um, incredibly creative. He's very argumentative. Um, he's taciturn, he's morbid. Um, you know, he's really not who you want as your best friend.

Lizzie Peabody: (Laughs)

Brian Balogh: But he is who you want inventing your explosives!

Lizzie Peabody: Yeah. Nobel figures out that he can stabilize nitroglycerine by mixing it with a chalky powder called diatomaceous earth. That combination forms a paste that stabilizes the nitroglycerine. It's way easier to transport without accidentally blowing people up.

Brian Balogh: Nobel also invented the blasting cap, which attaches to a fuse, and what that means is people can detonate the dynamite from a safe distance.

Lizzie Peabody: And dynamite is just basically these ingredients packaged in a tidy cylinder wrapped in paper. It's stable and relatively safe.

Brian Balogh: And so, in 1867, dynamite hits the market for the first time and it's a huge success. Here's Peter Liebhold again.

Peter Liebhold: In 1867, Nobel produces 11 tons of dynamite, which is, you know, a fair amount of dynamite. And by 1874, he's got 3,120 tons of dynamite that he's produced.

Lizzie Peabody: So, people, the people loved it?

Peter Liebhold: The people loved it. Dynamite was the boss. (Laughs)

Lizzie Peabody: The Boss. The Bruce Springsteen of explosives.

[Bruce Springsteen's "Rosalita" playing... "Dynamite's in the belfry baby, playin' with the bats"]

Brian Balogh: Dynamite became the go-to tool for tunneling and mining, but as Dr. Frankenstein soon found out, once your invention leaves the lab, there's no controlling where it goes next.

Peter Liebhold: One of the things that are really fascinating about innovation is that, that things don't necessarily turn out as people expect they will and that folks are very creative about finding new uses, um, for new ideas. And sometimes they're positive and sometimes they're destructive.

[MUSIC]

Lizzie Peabody: “Sometimes they're positive and sometimes they're destructive.” Brian, that seems like a perfect launch point to detonate a couple explosive stories, don't you think?

[MUSIC]

Brian Balogh: You bet! We've each brought a terrific story that's surprising in some way. And why don't you go first, Lizzie?

[MUSIC]

Lizzie Peabody: Alright, here we go!

[MUSIC]

Lizzie Peabody: Any third-grader who's had to draw a self-portrait can tell you, it's not easy. The subtlest tweak to lips or eyebrows changes a face completely. Creating a portrait requires precision, which is why I'm confounded by Mount Rushmore.

[MUSIC]

Lizzie Peabody: From the Black Hills of South Dakota, four presidents: George Washington, Thomas Jefferson, Theodore Roosevelt, and Abraham Lincoln, gaze out of a mountainside. They're instantly recognizable. And they're big.

[MUSIC]

Maureen McGee Ballinger: If you want to compare George to a house, his face is as big as a six-story house.

[MUSIC]

Lizzie Peabody: That's Maureen McGee-Ballinger. She's the Chief of Interpretation at Mount Rushmore National Memorial. I called her up because I needed help understanding one thing. How do you sculpt a face using dynamite?

[MUSIC]

Maureen McGee Ballinger: (Laughs) There's documentation that one of their first blasts, they used too much. The stick was too big and they blew a boulder off over 186 feet in the air. It flew across, it hit the tramway and snapped one of the cables. So yeah, there was some trial and error.

Lizzie Peabody: And using dynamite wasn't even the original plan. Mount Rushmore's designer, an artist named Gutzon Borglum... I'll say it one more time for you. Gutzon. Borglum. He thought he'd sculpt the whole thing using drills and chisels, but he realized very quickly, that that wasn't going to cut it. At the rate they were moving, they'd be lucky to finish George's nose in Borglum's lifetime.

Maureen McGee Ballinger: The carving officially started October 1st, 1927. By October 25th, 1927, Borglum had said, “we need to start using dynamite.” This is a quote from Gutzon

Borglum, "blasting won't be used often, and to avoid cracking portions that will be used on the figures, it's used with the utmost caution." Well, it turns out that wasn't true. It was used a lot.

Lizzie Peabody: (Laughs)

Maureen McGee Ballinger: And what...

Lizzie Peabody: How much is a lot?

Maureen McGee Ballinger: 90% of the sculpture was carved with dynamite.

Lizzie Peabody: Wow! Okay. That's a lot.

Maureen McGee Ballinger: Over 500,000 tons of rock removed with dynamite.

Lizzie Peabody: So, they were blasting every day.

Maureen McGee Ballinger: They were blasting every day, twice a day.

Lizzie Peabody: It took a lot of men to make this happen. Gutzon Borglum oversaw 400 workers during the 14 years it took to sculpt Mount Rushmore. They were skilled laborers. They were used to working with dynamite and they could follow directions, but they weren't artists. That's why he needed Luigi Del Bianco.

Maureen McGee Ballinger: Luigi was named Chief Carver and he's the only person that ever had that title of Chief Carver.

Lou Del Bianco: He was not only Borglum's assistant and right-hand man, who was charged with carving the refinement of expression in the faces. In other words, when you see the humanity in those faces, as if they live and breathe, that is pretty much from the hands of my grandfather.

Lizzie Peabody: This is Lou Del Bianco, Luigi's grandson and namesake.

Lou Del Bianco: What I remember most of all was when he would take me by the shoulders and he would say, "I am Luigi. You are Luigi." Uh, and I just think that, that, you know, cemented a bond between the two of us.

[MUSIC]

Lizzie Peabody: Lou has spent years documenting his grandfather's work on Mount Rushmore, and learning exactly how the blasting was done so artfully.

[MUSIC]

Lizzie Peabody: First, Borglum made an exact model of the sculpture in his studio; a lot smaller than the mountain, but actually still pretty big. Each face was about five feet tall. Then, he carefully measured every dimension of the model, multiplied those measurements by 12, and mapped them onto the mountain.

[MUSIC]

Lizzie Peabody: Help me understand. So, they have these points. They have these measurements. They take them up to the mountain face and then did they plant dynamite like at that very spot?

[MUSIC]

Lou Del Bianco: Yes, they would drill holes in the area that they wanted to remove and they would, they would cut the dynamite in different lengths. Obviously, the bigger the length, the bigger the blast.

[MUSIC]

Maureen McGee Ballinger: When you see photos of them doing it, it's like they're cutting a carrot and you think, wow! I didn't know you could cut dynamite!

Lizzie Peabody: These guys cutting the dynamite were known as "powder men."

Lou Del Bianco: They could cut like little half inch lengths of dynamite and put them in these little detonators with copper caps that would go with electrical wires that would go to a detonator.

Maureen McGee Ballinger: And it was detonated so all of them would go off at the same time. You might have 60 to 70 shots going off at the same time.

Lou Del Bianco: And sheets of rock would come off in, in perfect layers.

Lizzie Peabody: Obviously, safety was a concern. So, they were using this dynamite. They were using it twice a day. They were setting off these massive coordinated explosions and I mean, over 14 years, or I guess if they started the second year, it would have been 13 years of blasting dynamite twice a day. Were there ever any casualties? Were there any injuries?

Maureen McGee Ballinger: No casualties. They did have one afternoon when a thunderstorm had rolled through and they had already placed the dynamite on the sculpture, but not all the workers had gotten off the sculpture yet.

[THUNDERSTORM SOUND EFFECTS]

Maureen McGee Ballinger: Thunderstorm hit down below and it hit power lines and it sent a surge of power all the way up the line into the detonator box.

Lizzie Peabody: Oh!

Maureen McGee Ballinger: It opened the switch. It set off the blasting caps, which set off the dynamite.

[SOUND OF AN EXPLOSION]

Maureen McGee Ballinger: And the gentleman who was sitting right over the top of one of them, he was in what they called a Bosun's chair.

Lizzie Peabody: Hmm.

Maureen McGee Ballinger: Kind of a piece of leather around the middle like a swing, and it blasted him away from the sculpture and then back into it.

Lizzie Peabody: Hmm!

Maureen McGee Ballinger: And he survived! He got banged up, bumps and bruises, but he recovered!

Lizzie Peabody: Wow!

Maureen McGee Ballinger: Borglum claimed you could never fall out of those Bosun's chairs and up if there was a proof of it, it was that blast.

Lizzie Peabody: Let me stop for a moment and point out how insane this is! Close your eyes and imagine dangling off the edge of the 46th floor of a building, 500 feet in the air, holding a giant drill, while sitting in a child's playground swing. That's so high, you wouldn't even be able to make out people on the ground below.

Lou Del Bianco: I mean, they had the sun beating on the back of their head. Their face was white, like a ghost, from the dust.

Lizzie Peabody: Hmm.

Lou Del Bianco: And if it was a really windy day...

Brian Balogh: Hmmm, mmm.

Lou Del Bianco: ...you just had to deal with the wind moving you around and you were doing really precise work. So, your, your body just took a beating.

Lizzie Peabody: Measure, drill, blast, repeat. Most of the work on Mount Rushmore combined precise measurements with brute force, but when making a sculpture, engineering only gets you so far. And Lou says the finishing touches to Mount Rushmore were done by feel. When the blasting was done, Del Bianco brought a mask of each face he worked on to the mountain so that he could kind of...

Lou Del Bianco: ...move that expression to the larger face. That's what he was able to do.

Lizzie Peabody: Yeah. I'm picturing him reading the two surfaces, almost like braille, like by feel.

Lou Del Bianco: Exactly. Yeah! No, I think that's a great analogy.

Lizzie Peabody: And some parts of the sculpture were more detailed than others. For example, how do you make an 11-foot wide eye look human? If you look closely, there's a secret in the design.

Maureen McGee Ballinger: Usually, prior to this, an artist carving an eye would make it concave or convex one way or the other. Borglum carved the eye, but left a stand of granite right in the center. A post. So, as the light moves across the sculpture during the day, the shadow of that

post changes. So, it looks as if the Presidents are looking in different directions at different times of the day.

Lizzie Peabody: That's a stroke of brilliance. It's like a sundial.

[MUSIC]

Maureen McGee Ballinger: Yes, very similar! And yes, it was a stroke of brilliance.

[MUSIC]

Lizzie Peabody: Is it fair to say that it would not have been possible to carve Mount Rushmore without dynamite?

Maureen McGee Ballinger: Yes. It would have just taken too long.

[MUSIC]

Lizzie Peabody: In 1941, Borglum died, the US entered World War II, and construction on Mount Rushmore halted as complete as it would ever be. The bodies that Borglum planned to sculpt never materialized. But if not for dynamite, the statue would look very different than it does today. It's hard to imagine 3 million people a year trekking out to visit "the great nose of South Dakota."

[MUSIC]

Brian Balogh: That's a great story, Lizzie. And I think it's important to mention that while many Americans appreciate Mount Rushmore for how it portrays beloved Presidents, local Native American tribes have considered these lands sacred for generations. So, the faces blasted into the granite don't mean the same thing to everyone.

Lizzie Peabody: Right. Just 40 years before construction on Rushmore began, the government granted the Black Hills to the Lakota Sioux, but that only lasted as long as it took prospectors to find gold.

Brian Balogh: So, there's a complicated history behind Mount Rushmore, but from an engineering perspective, sculpting it with dynamite remains impressive.

Lizzie Peabody: So that's our dynamite story. And coming up after a quick break, Brian you're going to share another surprising tale of dynamite.

Brian Balogh: You bet!

[MUSIC]

Lizzie Peabody: Alright Brian, your turn. Where does this story start?

Brian Balogh: Well, we've talked about the way dynamite was used to construct a massive monument at Mount Rushmore, but 50 years before they started blasting Presidents' faces into rock, dynamite was being used to construct something very different.

Tim Messer-Kruse: It seemed to be the great equalizer between the people and formal military forces.

Brian Balogh: This is historian Tim Messer-Kruse. He's researched how anarchists use dynamite to intimidate the government in the late 1800s and to create a social movement.

Tim Messer-Kruse: One of the problems that dynamite addressed was the problem that had become evident by the 1870s, that the power of governments was far and away excessive to that of the power of the people.

[MUSIC]

Tim Messer-Kruse: Even under a united working class, even a revolutionary action that was set in motion could easily be defeated by the organized forces of the government. And then comes along dynamite.

[MUSIC]

Brian Balogh: Tim says dynamite not only helped level the playing field between radicals and the government, it also allowed individuals to send a bold, and sometimes bloody, message to the powers that be.

[MUSIC]

Tim Messer-Kruse: It seemed to be something that an average person could employ, they'd required no special training. They could carry it safely on their person. They could conceal it easily. And they could use it to defeat entire regiments of, uh, police or the military.

Lizzie Peabody: So, it sounds like these anarchists were really into dynamite because it was a do-it-yourself kind of weapon that could deliver a powerful punch. But who were these people? I mean, when I think of anarchists, I imagine somebody who wants to undermine all of government and society. Is that the kind of person who's carrying around this dynamite?

Brian Balogh: Well, not exactly. Tim says that there's a modern misunderstanding of who an anarchist was and what they were after during this time period.

Tim Messer-Kruse: We tend to think of an anarchist as sort of a anti-everything; certainly anti-state, anti-religion. Um, it's hard to conceive of a group of a anti-everything people becoming organized, but in the 19<sup>th</sup> century, people who were described as anarchists described themselves as revolutionary socialists. They earned the moniker, anarchist, years or decades later.

Brian Balogh: So, what might drive them to threaten the use of dynamite, and in some cases, use it?

Tim Messer-Kruse: Well, they were fighting against a whole host of things. They would wrap all of their grievances up into the, the general category of capitalist exploitation. I mean, some of it was, some of the undemocratic nature of governments around the world. Some of it was the complete uh, and total control of growing corporations over the individual lives of workers, but also their communities. So, they were fighting against all of these things that would manifest themselves as common people's feelings of lack of power and, and a lack of a future.

Brian Balogh: And as tension bubbled between the working class and those in power, there was one guy who quickly created a spark, pun intended, within anarchists' circles of the labor movement. His name was Louis Lingg.

Tim Messer-Kruse: He was clearly a very bold person of action and he was someone I think who just was a natural leader.

[MUSIC]

Brian Balogh: Lingg was born in Germany into an extremely poor family. And when he was just five-years-old, he was sent off to be a carpenter's apprentice.

[MUSIC]

Tim Messer-Kruse: That was just so they could be one less mouth to feed. And he completed his apprenticeship and then he set off on his own as was the custom among tradesman in the 19<sup>th</sup> century. He wandered from place to place, picking up odd jobs around Europe. He finally found his way to Switzerland, where he met his first group of socialists. And eventually, he moved from group to group; each group being progressively more radical than the previous group.

[MUSIC]

Brian Balogh: Lingg came to the U.S. in the summer of 1885 when he was in his early 20s. First, he went to New York, but he soon hopped over to the city that was the capital for the labor movement in the United States: Chicago.

Tim Messer-Kruse: This is the amazing thing. He arrives in Chicago in late July of 1885. He was uh, 22 years old at the time and by the winter of that same year, he has been elected to the highest office in the Carpenter's Union in Chicago.

Lizzie Peabody: Wow! It sounds like he rose up the ranks quickly. So, does Lingg start handing out sticks of dynamite to anarchists in Chicago?

Brian Balogh: (Laughs) Well, he wasn't bringing bombs to meetings as party favors. But a stash of explosives did get him into some serious trouble. A few months after Lingg's started working with the Carpenter's Union, buzz grew around the city about a big labor demonstration.

[MUSIC]

Tim Messer-Kruse: The Haymarket meeting, uh, as it was organized, was part protest and it was intended to be part provocation. It was, it was quite consciously intended to try and provoke the police into taking some kind of an unwise action so as to justify even greater levels of, of violence and street fighting.

[MUSIC]

Brian Balogh: And did that happen?

Tim Messer-Kruse: It absolutely did happen.

[MUSIC]

Brian Balogh: On May 4<sup>th</sup>, 1886, a crowd of people gathered in Haymarket Square in Chicago. They were there to protest the dismal labor conditions in the city. Things were tense because just a few days earlier, police had shot and killed a couple of workers at another rally. So, everybody was on edge when the police showed up at Haymarket.

Tim Messer-Kruse: It was raining and windy and blustery. A few thousand people were milling around listening to the speeches when uh, the police unwisely led their regiments out of the nearby police station, marched down shoulder-to-shoulder, gutter-to-gutter through the streets, clearing the street ahead of them as they moved on the speaker's wagon.

[SOUNDS OF MARCHING AND WHISTLE BLOWING]

Tim Messer-Kruse: The police ordered them to disperse under the Riot Act of Illinois. Someone threw a bomb from a nearby alleyway.

[SOUNDS OF SHOUTING AND EXPLOSIONS]

[MUSIC]

Tim Messer-Kruse: The concussion pretty much stunned everybody. All observers say there was a moment of eerie silence after the explosion.

[MUSIC]

Tim Messer-Kruse: There upon gunfire erupted. It's pretty much certain that this was gun play in both directions. At least four of the anarchist participants and the protest were shot and killed and uh, most likely dozens of others were, were wounded.

[MUSIC]

Lizzie Peabody: So, where was Louis Lingg during all of this?

Brian Balogh: Well, he actually wasn't in Haymarket Square, but that didn't mean he was off the hook.

Tim Messer-Kruse: So, Louis Lingg was connected to the plot to uh, hold this meeting and to have a violent protest against police. Because police were tipped off and uh, they discovered in his apartment a number of unexploded bombs, and bomb-making equipment and uh shells that hadn't been filled, and bomb-making tools.

Lizzie Peabody: Yet an apartment full of bombs is not a great look for Lingg's defense.

Brian Balogh: Nope. And sure enough, Lingg and seven others were charged with murder in the first degree.

Tim Messer-Kruse: In Illinois, you can be charged with murder and found guilty of murder if you're not responsible directly for the murder if you were responsible for the plan that sets in motion the murder.

Brian Balogh: And even though he was charged with a very serious crime, Tim says Lingg never took the stand to testify in his defense.

Tim Messer-Kruse: Probably the most sound thing the defense did was not put him on the stand. He was the most defiant and unrepentant of all the men who were on trial for that crime. He never denied making bombs that day. In fact, his lawyers tried to make part of his defense the idea that he had the right to make bombs, just not to use them. I think that was probably a flawed defense argument.

Lizzie Peabody: He had the right to make bombs, just not to use them.

Brian Balogh: (Laughs) Yeah. Sounds fishy to me and the court didn't buy it either. Lingg was found guilty and sentenced to be hanged. But before he went to jail to await his fate, he issued a statement to the court.

Tim Messer-Kruse: His statement came very, very close to something of a confession. He said, "Anarchy is called disorder. Anarchy is an opposition against the order of things, which does not allow a man to live a life that is worth living. I declare here once more openly, with all my powers, with all my mind, I must combat so much disorder. Even if this praiseworthy object should be defeated with cannon, I shall use dynamite. You smile. You perhaps think I will not use bombs anymore, but I tell you I die gladly upon the gallows in the sure hope that hundreds and thousands of people to whom I have spoken will now recognize and make use of dynamite. In this hope, I despise you and I despise your laws. Hang me for it."

[MUSIC]

Lizzie Peabody: Well, it certainly sounds like Lingg stuck to his guns to the very end. So, was he hanged?

Brian Balogh: That was the plan, but even though Lingg was sent to jail, he wasn't quite done with dynamite.

Tim Messer-Kruse: He was all set to be executed and apparently a friend smuggled some small dynamite charges into his jail cell. The police actually discovered four small dynamite charges that were hidden in his jail cell and confiscated them. Apparently, they didn't find the fifth however and Lingg simply reclined on his bed, gripped the dynamite charge in his lips and lit the fuse. And it didn't lead to the instantaneous death that he expected. He, he lingered in agony through most of the night.

Lizzie Peabody: That sounds like a terrible way to go. Why would he do that?

Brian Balogh: Tim says that Lingg would have rather died by his own hand in a blaze of glory than to be executed by the state. But after his agonizing death, the memory of Lingg started to fade within the labor movement.

Tim Messer-Kruse: His memory was in many ways suppressed. He was an unrepentant and he was a vocal advocate of individual acts of violence against the state. And this idea, although it was popular in radical circles leading up to the Haymarket Riot, the denial that that was ever actually meant seriously became an important part of the Haymarket martyr's defense; which was largely based upon the idea that, well they might have said some things such as, "bombs

are good and you should throw bombs,” but they really just meant that to scare the capitalists. They weren’t really serious about that.

Brian Balogh: And especially after that bomb went off, it was not so good for business to be talking that way.

Tim Messer-Kruse: Absolutely not. So, Lingg’s legacy gets suppressed. He is the one who, in many ways, uh, can’t be remembered because if he’s remembered, then that sort of tells the lie of the idea that all the Haymarket defendants were simply pacifists, and democrats, and liberals.

[MUSIC]

Brian Balogh: Even though Lingg faded into the margins of history, Tim says dynamite remains a potent symbol for upending the status quo by either literally or metaphorically blowing things up.

[MUSIC]

Tim Messer-Kruse: That symbolism was both extremely strong in the 1880s and I, I think it still lingers today because of its durability. I’m always amused by a few episodes in the 1880s that illustrate people’s faith in this object. In New York City, there was a figure. He called himself Professor Mezzero and he gave speeches and he advocated that everybody carry a dynamite bomb in their pocket. And to illustrate that, he went around the streets of New York and rode on the streetcars, always armed with a dynamite bomb in his pocket. Also, about the same time, we get the first publishing industry around dynamite, a radical revolutionary by the name of Johann Most in New York published a book called, “Revolutionary War Science” was reprinted a number of times and interestingly, it serves as the kernel to the 1970s publication known as, “The Anarchist’s Cookbook,” which is still in circulation and still reprinted quite often. These sort of things I think indicate that the symbolism of dynamite serves a purpose apart from dynamite itself. It is, it is the symbol of the ability of people who are organized and committed to make social change. And I think that that symbolism will not go away because that, that idea will not go away.

[MUSIC]

Brian Balogh: Well Lizzie, how’s that for a different use of dynamite from the story you just told?

[MUSIC]

Lizzie Peabody: That’s some pretty heavy stuff and I think it really illustrates how the same technology can be used for completely different purposes.

[MUSIC]

Brian Balogh: Yeah! And, you know, we find so often in history that the same tool, the same idea is just repurposed by people.

Lizzie Peabody: Right.

[MUSIC]

Brian Balogh: You know, we don't often work with other podcasts and I just want to tell you how much I've enjoyed working with Sidedoor, Lizzie. Thanks so much.

[MUSIC]

Lizzie Peabody: Thanks Brian. This was a lot of fun for us too. We have joined forces, like nitroglycerine and diatomaceous earth.

[MUSIC]

Brian Balogh: (Laughs)

Lizzie Peabody: We've created an explosive, yet stable episode.

Brian Balogh: (Laughs)

[MUSIC]

Lizzie Peabody: You've been listening to Sidestory, I mean Backdoor. I mean Sidedoor, a podcast from the Smithsonian with support from PRX.

[MUSIC]

Lizzie Peabody: If you'd like to see a video of Dr. Harkless's explosion, and a really nerdy photo of us all wearing safety glasses, you'll find them in our newsletter! Subscribe at [si.edu/Sidedoor](http://si.edu/Sidedoor). There's also a link in our episode notes. That's at [si.edu/Sidedoor](http://si.edu/Sidedoor).

[MUSIC]

Lizzie Peabody: You know what would be dynamite? If you left us a review on Apple podcasts! It would make a truly explosive difference in our day.

[MUSIC]

Lizzie Peabody: Sidedoor is made possible with help from people like you! Your generous support helps make all the amazing work you hear about at the Smithsonian possible.

[MUSIC]

Lizzie Peabody: Special thanks to Dr. John Harkless, Ramzey Smith, Peter Liebhold, Maureen McGee-Ballinger, Lou Del Bianco, Tim Messer-Kruse and the great folks at Backstory for their help with this episode.

[MUSIC]

Lizzie Peabody: Our podcast team is Justin O'Neill, Jason Orfanon, Michelle Harven, Caitlin Shaffer, Jess Sadeq, Lara Koch, and Sharon Bryant. Episode artwork is by Greg Fisk. Extra support comes from John, Jason and Genevieve at PRX. Our show is mixed by Tarek Fouda. Our theme song and other episode music are by Breakmaster Cylinder.

[MUSIC]

Lizzie Peabody: If you want to sponsor our show, please email [sponsorship@prx.org](mailto:sponsorship@prx.org). I'm your host, Lizzie Peabody. Thanks for listening.