

# More Stories About the Beds of Nails Demonstrations

I have three more stories about my bed-of-nails demonstration, or rather, my failures with the demonstration. One summer I gave the Flying Circus of Physics talk at Oxford University in England to a meeting of education experts from around the world. Unfortunately, few in the audience spoke English, much less understood my Texas-brand of humor. So, as the talk went on and I met little if any laughter at my jokes, I became more nervous and less cautious. When I got to the bed-of-nails demonstration at the end of the talk, I discovered that I had to perform the stunt on a bench so that everyone could see it. My assistant put the concrete block on top of the bed sandwich (I was the meat of the sandwich) and then swung the sledgehammer down on the block.

Because I knew that, with this unusual arrangement, the angle of swing was awkward for the assistant, I tried to steady the top bed by grabbing it firmly with one hand. When the sledgehammer hit the block, the impact drove a nail across my hand, cutting it. I didn't realize that I had been cut until I stood up to give my closing remarks, but then the blood flow was noticeable to both me and the audience. The audience was impressed with the demonstration and especially the blood --- they required no grasp of English to know that I had hurt myself.

After packing up the equipment, I met my host at a local pub for a pint of ale, feeling somewhat relieved that at least the final demonstration of the talk had impressed the audience. Then my host told me that tetanus ("lock-jaw") was a real concern in that part of England. I had not minded the pain of the cut, but the thought of contracting tetanus worried me. (The bacteria causing tetanus enters the body through a cut from, say, a dirty nail. If the bacteria are not stopped, the victim soon dies while having every muscle in the body in full contraction, unable to breathe.) I put down the pint of ale and hurried over to the local hospital for a tetanus shot. There I had to explain to the nurse how I had cut myself. As she drove the needle into my rump, she was laughing so hard that she shook. I had traveled across the Atlantic Ocean to impress educators and had ended up dropping my pants in front of a nurse laughing at me.

Equally embarrassing was the time I gave the bed-of-nails demonstration at an all-girls high school. I figured that the woman who invited me did not want to see the sledge-hammer part of the demonstration, so I planned to do only the part where I am sandwiched in the two beds of nails with a person standing on top. Over the phone she agreed to be that person. What I did not think about during the phone conversation was the clothing that she should wear. I did not think about that feature until I was sandwiched in the two beds with the woman about to get on top. She was wearing a short skirt and, while standing immediately next to my head, decided to talk to the audience about what she was going to do. I did my very best to turn my face to the audience instead of looking upward; the audience went wild with laughter; the woman never understood what the problem was; and I was unable to straighten out my neck for a week.

I used the bed-of-nails demonstration not only in class and in my Flying Circus talk, but also in a series of motivational talks I gave to sales people of IBM. I began the motivational talks by being the stereotype physics professor (talking of grand things, being as boring as possible) and then slowly dropping the talk into slap-stick and then ending with the bed-of-nails demonstration. My message was that I sell a product (physics) to people (students) who often do not initially want the product, much like the sales people try to sell their IBM product to customers who may not want the product. In part of the slapstick I did a pratfall on the stage and fell over the edge of the stage to the floor. This stunt looked like a huge mistake, and every one of the 1000 people in each audience froze with tension when I did it because mistakes are never ever supposed to happen at an IBM presentation. Only gradually would the audience realize that the fall was planned, and then for the rest of my talk they would laugh and even cheer.

Before each of these talks I met the leading IBM executive that was there, because he was to be the one who would stand on me when I was in the bed-of-nails sandwich. Each of these executives was concerned about hurting me. I told each, "Hey, look, this demonstration is OK. Sure, your weight is going to hurt me by pressing the nails into me but the pain is something I can endure while you are up on top. Don't worry; I've got this figured out."

At one talk the executive was especially worried because he weighed about 230 pounds, which would put me at the limit of the pain I could endure. Nevertheless, I went through my calming words. Unfortunately, when I did my pratfall during that talk, I broke a rib as I hit the floor below the stage. At

the time, I did not know that a rib was broken; I only knew that my chest hurt like crazy. I continued the talk, doing the rest of the slapstick while not breathing very well. Then came the bed-of-nails demonstration and the 230-pound executive. When he stood up on the top bed of nails, the pain in my chest went ballistic and, though I could hardly breathe, I said my routine words about the stunt.

I was back in Cleveland and at my doctor's office later that day. She told me that I had broken a rib and that I should take life easy for a month. I tried to laugh (but couldn't) and said, "You've got to be kidding. I have to be back at the IBM talks next week." And I was. But thankfully the next several executives that stood on me each weighed less than 230 pounds.

Once when I gave the Flying Circus talk at Western Illinois University, my assistant could not make the trip and I asked my host if he would swing the sledge hammer down on me during the final demonstration. I told him to not be timid about the swing because that would disappoint the audience. I wanted a dramatic ending, and he gave me one. He swung that sledgehammer down hard, really jarring me. However, he came in at angle that sent most of the chunks of the concrete block across my face. I had one hand guarding my teeth and eyes, but one of the large chunks cut across my exposed chin. When I climbed out of the beds of nails and stood up to give my closing remarks, blood poured from my chin onto my pants and shoes. My host was pale with worry, but the audience was crazy with applause. That ending was the best ending I ever had with the Flying Circus talks, and at every later Flying Circus talk I secretly hoped to be cut like that again.

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