TIP 52 — Automatic Mill Spindle Shutoff Switch for CNC/Neil Yeager

Neil Yeager often lets his Sherline CNC mill run a job, but wanted to have the spindle motor shut off automatically when the cycle was completed and the Z-axis returned to the home position. That way if he didn't come back right away, the spindle motor wouldn't continue to run. He wired and additional on/off toggle switch into the line current and rigged it to be tripped by the raising of the headstock. He included a spring in the chain to dampen the movement. Here's what he had to say:

"I thought you might find this interesting. I looked around and didn't see anything like this on the market, so I made this device myself for my Sherline mill. The principle is simple, and I have this same setup to auto-stop my Lortone lapidary slab saw. Setup is pretty easy, and the idea is that for certain tasks you can set up your CNC mill, adjust the final Z setting and then walk away to do other tasks. The auto-stop turns off the drill head when the job is complete. I'm using a millimeter mill, so I adjust my final Z stop to be 20 mm. The initial starting point for the Z is 6 mm.

I am thinking of making these units for other machinists. It probably could be adapted to work on other types of machines as well."

Neil Yeager,

Myrtle Beach, SC
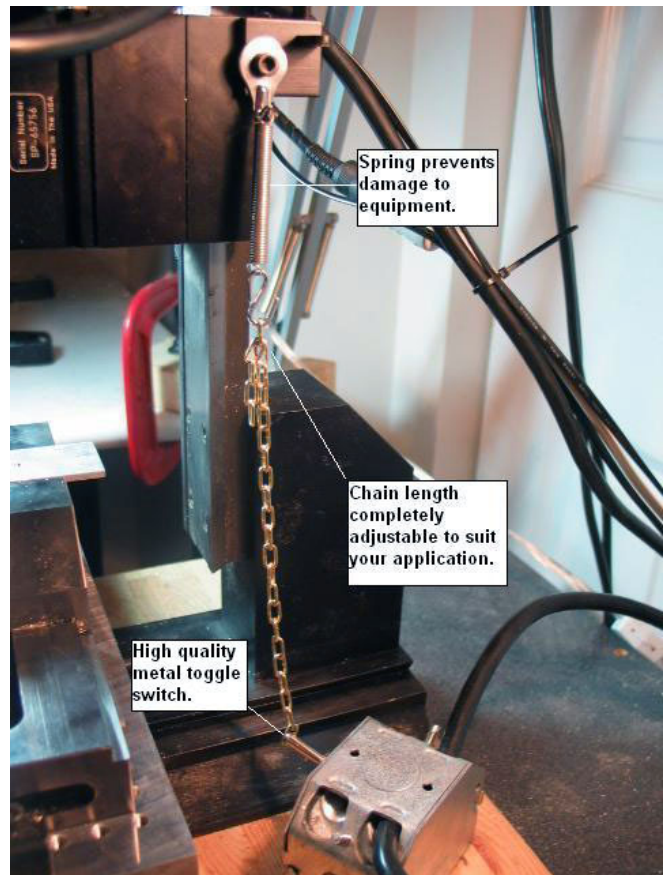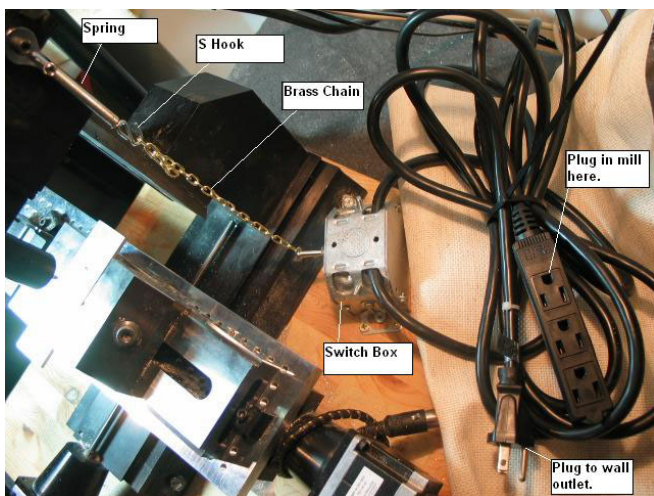
The captioned images pretty much tell the story.