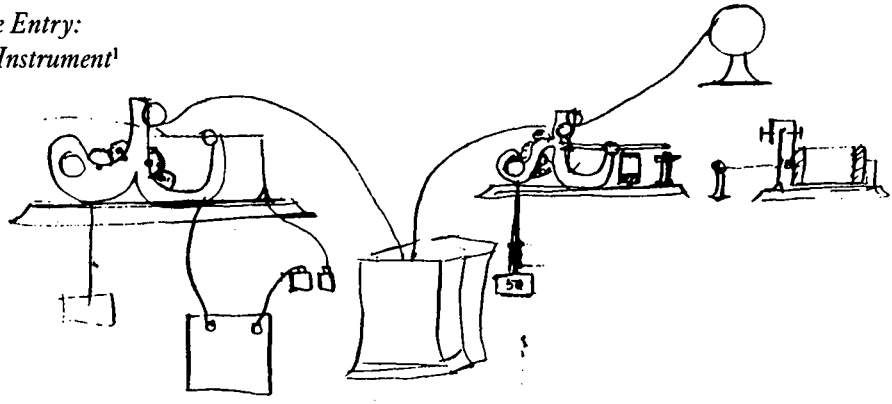
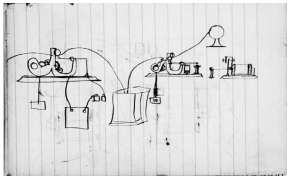
–10–

[Cincinnati?, Summer 1867?][2]

Notebook Entry: Practice Instrument[1]





AX, NjWOE, Lab., PN-69-08-08 (*TAEM* 6:769).

1. See headnote, pp. 29–32. This is a sketch of what Edison later called his first invention—a combination of instruments designed to slow the presentation of coded telegraph messages for the apprentice telegraph operator. He used two Morse embossing registers, one to record messages as they came in and the other to reproduce the coded messages on a sounder at a slower speed. While registers were not much used at the time of Edison's experiments, they were still widely available in telegraph offices. Edison later claimed that this invention was in some sense the direct ancestor of the phonograph. App. 1.D203–4; Lathrop 1890, 429; Dyer and Martin 1910, 68.

The registers shown were driven by weights and clockwork, which enabled Edison to adjust the speed at which paper tape ran through them. The device at the far right was the relay that operated the local circuit. Normally it would actuate the sounder (represented here by the square at the lower left with two wires running to it), and the operator would take the message by sound. In this case, however, the relay operated a Morse embossing register (shown here just to the left of the relay, with the roll of paper for it shown above); the embossing register recorded the message on paper tape, which accumulated in the bin. That tape was then drawn from the bin and used to operate a modified register that activated the sounder. Edison described the device further in "A Novel Device," *Operator*, 1 Sept. 1874, 1.

2. Edison devised this practice instrument in Indianapolis in 1865. While he may have made this sketch there or elsewhere prior to 1867, a

common drawing style links it with other items in the notebook. The general form of the registers in the drawing also indicates a date in the mid-1860s. Earlier weight-driven registers had a quite different shape. Later registers were driven by springs and did not have the long, straight, horizontal stylus arm shown in this sketch.