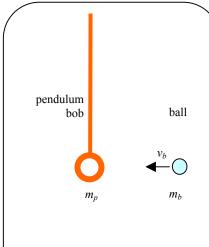




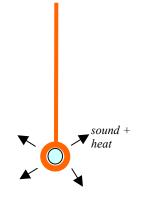
Stage 1: Spring in the gun is compressed, storing energy



Stage 2: Releasing the trigger, some of the energy that was previously stored in the spring is converted into the kinetic energy of the ball. It flies away at velocity v_b



Stage 3: a ball on the right flies toward the pendulum bob



Stage 4: The ball strikes the bob and gets stuck there; some of its energy is converted to heat or sound



Stage 5:
The combined mass of the ball and pendulum bob swings upward with a velocity v. As it swings up, it will reach a maximum height, where a pawl will catch it.