Use a stretched string with variable tension, one end of which is attached to a vibrating reed. For illumination use General Radio Strobolux, which is controlled by General Radio Strobotac.

Set the Strobotac and the Strobolux on a cart. Connect the two by the special plug-in cable, connect the Strobotac to the AC outlet on the back of the Strobolux, and connect the Strobolux to the 120 VAC line. Set the two switches on the back of the Strobolux to "medium" and "on". Set the switch on the back of the Strobotac to "slow" and turn the dial switch on the front to "high". When it is desired to turn off the stroboscopic light, it is convenient to use the off-on switch on the back of the Strobolux.

Viewing the Vibrating Reed: Set the stretched string near the front edge of the lecture table, with the vibrating reed near the center (lengthwise) of the table. Place the cart in front of the lecture table so that the Strobolux is directly in front of, and about 2.5' from, the reed. Tilt the Strobolux so that the reed is at the center of the light beam. Place the lens about 16" from the reed, in line with the center of the Strobolux and the reed. With the reed stationary and the Strobolux turned on, adjust the position of the lens to focus on the screen the image of the reed. Now with the overhead lights out and both the vibrator and the Strobolux turned on, adjust the frequency of the Strobotac until the reed apparently stands still and/or vibrates very slowly. (A dial setting of about 31 will produce the desired results.)

Viewing the Vibrating String: Raise the screen so the chalk board, rather than the screen, will serve as background in viewing the string. Move the cart toward the vibrator end of the string and adjust the Strobolux until it is about 3' from the center of the string and directing light so that the center of the beam is toward the center of the string and at an angle of from 20° to 30° with the length of the string. With the Strobolux turned off and the overhead lights on, adjust the tension in the string until one loop of maximum amplitude is formed. Now with the Strobolux on and the overhead lights off, adjust the frequency until the string apparently stands still and/or moves very slowly. (A dial setting of about 31 will be satisfactory.) By decreasing the tension in the string, repeat the demonstration with first two loops and then three loops on the string. In each case it is advisable to allow the students to see the vibrating string first with the overhead lights only and then with the stroboscopic light only, as was done with one loop.