AN AUTOMATIC MEAT FEEDER FOR THE CAT¹

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Despite the introduction of liquid and pellet foods for use during food reward training of the cat, pieces of fresh meat (liver, spleen, hamburger) remain an excellent form of food reinforcement. The described apparatus is a reliable and simply constructed means of automatically delivering a small piece of fresh meat to the cat as reinforcement in discrimination studies. Its total cost is estimated at \$35.00 and assembly requires about 10 to 15 man-hours.

The apparatus consists of a motor tuning unit² with a shaft which rotates through a specified arc upon electrical pulsation. Atop the shaft is attached a large disc or feeder tray with small plastic cups about 2 in. in diameter placed at regular intervals. The meat is placed in these cups. The tuning unit with the attached feeder tray is mounted at the end of an approach alley so that with each electrical pulsation delivered to the tuning unit, the feeder tray rotates and positions a different food cup beneath the hole in the floor of the reinforcement chamber. Positioning of the cup requires about $\frac{1}{2}$ sec, and 40-45 cups can be positioned per minute. Power for serial advancement of the tuning unit can best be provided through a standard 10-position stepper switch; however, mo-

mentary closure of a microswitch is also effective. During training, appropriate visual stimuli are projected upon a translucent plastic stimulus panel door which the cat approaches and opens with its head. Fresh meat reward is then available in the food cup appropriately positioned beneath the hole in the reinforcement chamber.

Fig. 1. Automatic meat feeder. A. top view; B. side view; C. end view.

Figure 1 illustrates the feeding apparatus as used in one arm of a "Y" maze. For a visual discrimination apparatus with two stimulus panels placed side-by-side for simultaneous presentation, two feeder tray mechanisms can be positioned side-by-side beneath the alley so that the rims of the two feeder trays practically touch at one point. The food cups located on each food tray at this point where the trays are adjacent would then be positioned directly below the holes in the reinforcement chambers.

¹This apparatus was developed under research grant NB-03307 from the National Institute of Neurological Diseases and Blindness, USPHS.

²The automatic tuning unit, type 596-A1 manufactured by the Collins Radio Corporation, is available for \$8.95 from Herbach and Rademan, Philadelphia, Pennsylvania, catalog No. 10K-673. The unit operates on 115 v, 60 cycle ac requiring 0.65 amp and developing 0.01 hp.