A NEW SHOCK GRID FOR RATS¹

The conventional shock grid used for rats consists of 1/8-inch brass rods set in the side walls of the box at intervals of 1/2 to 3/4 inch. A few months ago, I substituted a grid composed of sections of 5/8-inch, outside-diameter brass tubing spaced at 9/8 inch from center to center and running from one end of the box to the other rather than crosswise. This reduced the number of electrodes in the box from fourteen to six (five for the grid, one for the walls and bar). The polarity alternating system and associated wiring can now be made smaller and less expensive, and the percentage of time the current is flowing between any two electrodes may be increased. Biting and grasping of the grid are eliminated, and the flatter surface seems to provide better and more stable electrical contact. The thicker tubing apparently discourages attempts to escape through the grid, which is now visually closed, and the gradually rounded surface serves to prevent the rat from lacerating its nose in the process. The tubing itself provides structural rigidity for a removable grid. In several hundreds of hours of exposure to variable-interval escape schedules, a relatively rigorous test condition, the rats have discovered no new means of avoiding the shock.

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