TECHNICAL NOTE

*A RESTRAINING DEVICE FOR IMPLANTING
SHOCK DELIVERY ELECTRODES IN BIRDS*

Azrin (1959) has described an ingenious technique for delivering electric shock to the pigeon through wire electrodes implanted around the pubis bones of the bird. Such implantation typically requires that the bird be restrained by one person while a second person actually implants the electrodes, a procedure that is often awkward and inconvenient. The restrainer must not only hold the bird relatively still, a task in itself, but must simultaneously hold the bird's legs away from the person implanting the electrodes and also allow sufficient clearance for the implanter to complete the operation. Modification of a device similar to those used in many laboratories for weighing experimental animals (*cf.* Catania, 1962) provides a more efficient technique for restraining birds during implantation.

The restraining device is schematized in Fig. 1. It is a hollow cylindrical container open at one end and either closed or perforated at the other end. A container made of a sturdy material, such as metal or stiff plastic, seems more satisfactory than one made of more pliable material such as cellulose acetate; the latter may not support the harness screws without tearing and/or the sharper edges could lacerate the bird's legs while it is restrained. A 1-lb coffee can has worked well with the larger pigeons in this laboratory. One end of a leather strip (harness) is anchored with a metal screw to one surface of the cylinder, approximately 1 in. from the edge of the cylinder. The other end of the harness is punched with several holes at appropriate intervals. A second metal screw, over which the appropriate hole in the harness is placed, is attached 3 or 4 in. to one side of the harness anchor screw. All screws should be attached with the heads inside the cylinder to provide a smooth, continuous surface inside the restraining device. A metal or wooden rod is attached to the surface of the cylinder opposite from the harness and midway between the front and rear of the cylinder.

Placement of the rod in a vise or permanent affixation of the rod to some surface insures adequate support for the restraining device during implantation. The bird, attired in shock jacket, is introduced head first and feet upward into the cylinder and pushed forward until its legs touch the edge of the cylinder. The leather harness is then placed around both legs as close to the body as possible and firmly hooked in place. This eliminates interference of the legs during implantation and also reduces leg movements which might enable the bird to move its body during implantation. Further movement can be eliminated by pulling the restrained bird toward the experimenter until either the screw which holds the plug on the

Fig. 1. Schematic top view of the restraining device with a pigeon restrained for implantation of shock delivery electrodes around the pubis bones.

shock jacket or the front edge of the plug itself (see Azrin, 1959) catches over the edge of the cylinder. With the bird thus restrained, the pubis bones are easily accessible and implantation can be completed in a few minutes by a single experimenter without assistance. The restraining device is of further use when implanted electrodes require either repair or an occasional scraping of accumulated deposits from them. It has thus far been successfully employed during the implantation of 21 pigeons in this laboratory.

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REFERENCES

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- Catania, A. C. Solution to a weighty problem. *Journal of the Experimental Analysis of Behavior*, 1962, 5, 480.

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