

heart associated with a change from the reclining to the lateral positions have opposite electrical effects.

With this in mind, the analysis of the findings in the present report indicates that on the change from the reclining to the left lateral position, the electrical effects of rotation about the longitudinal axis predominate in most instances, with occasional predominance of the effects of rotation about the anterior posterior axis. In approximately 10% the 2 opposite effects exactly neutralize one another as indicated by the absence of any alteration in the electrocardiogram. In the shift to the right lateral position there is approximately an even distribution of the effects, each type of rotation predominating in one-third of the cases and a neutralization of the effects in the remainder.

These studies suggest that some care must be observed as regards the position of the patient in the taking of electrocardiographic records. It is possible in many cases that a moderate rotation of the body, especially to the left, may sufficiently alter the record as to result in error, particularly in the interpretation of ventricular preponderance. These observations also indicate that an absence of variation in the electrocardiogram with change of posture is not invariable evidence of a fixation of the heart.

5525

A Rat Board for X-Ray, Photography, and Operative Procedure.

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The board for holding rats, shown in the accompanying illustration, will be found convenient for x-ray exposures, photographs or for an operating board. It was designed to obviate the danger to the workers of exposure to x-rays. We calculated that the number of exposures necessary was in excess of the dosage compatible with safety. With the present device, one person can do the work for which 3 were formerly required. The animal is placed in the holder outside the x-ray room and while the exposure is made, a second animal is made ready. Thus no worker is exposed to x-rays.

The apparatus shown was made from sheet aluminum. It can be made of steel or covered with lead as desired. The clips are battery

clips with the teeth flattened to the plane of the clip and guarded with rubber tubing. The spring of the clip should not be strong enough to hurt the animal's paw. A test on the finger will determine whether the jaws should be bent or the spring altered. The clips

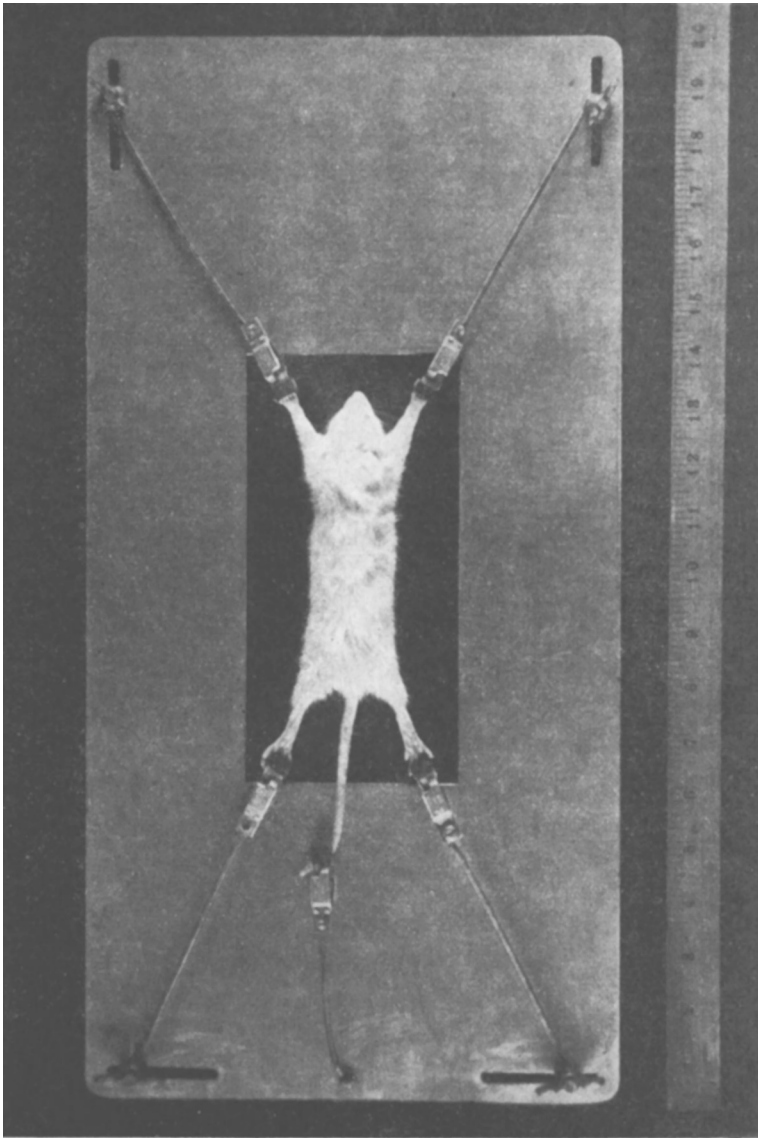


FIG. 1.

This photograph was made in the photographic studio of the Babies and Childrens Hospital. D. G. Shields, photographer.

are fastened to the frame with coiled spring wire. This permits the animal to be held firmly but is still elastic. Under such conditions the animals are restrained but not immobilized. They do not feel frightened and remain quiet and docile upon the board.

Mr. B. Dan, Supervisor of Equipment of the Institute of Pathology, Western Reserve University, has given suggestions for some mechanical features and his help is gratefully acknowledged.

5526

Pharmacology of *Ruvettus Pretiosus*, or "Castor-Oil Fish."

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Ruvettus pretiosus is a deep-sea fish inhabiting the Southern Pacific, the flesh and bones of which contain a fat or oil known to South Sea Islanders as a purgative agent.¹ At the suggestion of Dr. E. W. Gudger, of the American Museum of Natural History, who described the biology of the fish,^{2, 3} a pharmacological study was undertaken of the oil obtained through Mr. Donald G. Kennedy, of Vaitupu, Ellice Islands, South Seas. The physical and chemical constants of the specimen studied, as determined by Dr. Warren M. Cox, were as follows:

Density $\frac{25}{25}$	0.8725
Density $\frac{25}{4}$	0.8700
Iodine No.	74.42
Saponification No.	124.0
Refractive Index $\frac{25}{D}$	1.4628

Preliminary experiments revealed that 10 to 15 cc. of *Ruvettus* oil administered to a cat by stomach tube was followed by an abundant soft stool after 2 hours. In dogs, 25 to 30 cc. of the oil have the same effect. The oil being limited, a special method of pharmacological experimentation was devised for quantitative and comparative studies. This consisted in preparing a thick suspension of finely divided animal charcoal and introducing from 0.5 to 1 cc. by

¹ Lowe, *Trans. Zool. Soc., London*, 1841, **2**, 180.

² Gudger, *Boston Med. and Surg. J.*, 1925, **192**, 107.

³ Gudger, *Am. Naturalist*, 1928, **62**, 467.