

All the ductless glands are studied by four methods. We have to find the effects, firstly, of removal in animals; and secondly, of the injection or ingestion of extracts. We have, thirdly, to make chemical analyses of the extracts, to isolate any active principle. Finally, a clinical study of symptoms in man associated with any abnormalities of the gland may be expected to throw a light on the problem, and the effect of treating these conditions will also need to be known.

These are here set forth in the rational, not in the historical order. It may be said at once that the active principle or principles have not yet been isolated.

THE EFFECTS OF REMOVAL OF THE PITUITARY GLAND IN ANIMALS.

It is so difficult to remove the organ from its well-concealed nest that the earlier published results inspired no confidence. It was said that the animals died, but the injury to vital structures was necessarily great, and it has been remarked that the result would probably have been equally fatal if the operator had removed the dorsum sellæ instead of the gland! But the careful and repeated observations of Paulesco on twenty-two animals, and of Cushing on about 100 puppies, have completely established confidence in the statements now before us.

It is proved that removal of the anterior lobe alone, in dogs, produces just as much effect as removal of the whole gland, but that a removal limited to the posterior lobe causes no symptoms at all.