THE KINETIC DRIVE: ITS PHENOMENA AND CONTROL

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649345786

The Kinetic Drive: Its Phenomena and Control by George W. Crile

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd. Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

GEORGE W. CRILE

THE KINETIC DRIVE: ITS PHENOMENA AND CONTROL





THE KINETIC DRIVE ITS PHENOMENA AND CONTROL

BY

GEORGE W. CRILE, M. D.

PROPESSOR OF SURGERY, WESTERN RESERVE UNIVERSITY: VISITING SURGERON TO THE LAKESTOP HOSPITAL, CLEVELAND

Wesley M. Carpenter Lecture before The New York Academy of Medicine, 1915

AMY F. ROWLAND, B. S.

EOFFED BY

HLUSTRATED

LANE LIBRARY

PHILADELPHIA AND LONDON

W. B. SAUNDERS COMPANY
1916

J111

TO ELISABETH

10

PREFATORY NOTE

This lecture is in effect an epitome of a monograph in preparation which will offer the complete experimental evidence upon which these themes and postulates are founded.

In that volume acknowledgment will be made of the valuable aid given by all who have collaborated with me throughout these researches, and in the bibliographic lists published therein will be found references to the literature which has been studied in this connection.

GEORGE W. CRILE.

CUSHING LABORATORY OF EXPERIMENTAL MEDICINE,
WESTERN RESERVE UNIVERSITY,
CLEVELAND, OHIO.

May, 1916.

5

100 6 901

TABLE OF CONTENTS

		AGE
Ι,	INTRODUCTION	11
11.	The Kinetic Mechanism.	11
ш.	Functions of the Adrenals and of the Thyroid in the Kinetic	ě
	Drive	27
IV.	CONTROL OF THE KINETIC DRIVE	35
V.	THE CHRONIC KINETIC DRIVE	54
VI,	KINETIC DISEASES	55
	Graves' Disease.	55
	Cardiovascular Disease	62
	Bright's Disease	
	Diabetes,	
VII,	SURGICAL METHODS OF CONTROLLING THE KINETIC DRIVE	65
III.	Summary	70



LIST OF ILLUSTRATIONS

Fig.	1.—HISTOLOGIC CHANGES PRODUCED IN THE BRAIN BY PHYSICAL EXER-	GE
Fig.	TION, INSECTION, AND SKATOL (AUTO-INTOXICATION)	13
	EXERTION, INFECTION, AND SKATOL (AUTO-INTOXICATION)	15
Fig.	 HISTOLOGIC CHANGES PRODUCED IN THE LIVER BY EXTREME PHYSI- CAL EXERTION, INFECTION, AND SKATOL (AUTO-INTOXICATION) 	17
E.	Exemple of Department of the Department of the Control of the Cont	
Fig.	5.—TRACING SHOWING EFFECT OF FEAR ON THE ADRENAL OUTPUT OF	19
	A CAT. (CANNON TEST)	21
Fig.	A CAT. (CANNON TEST). 6.—TRACING SHOWING THE EFFECT OF DIRETHERIA TOXIN ON ADRENAL OUTPUT OF A CAT. (CANNON TEST)	42
Fig.	7.—TRACING SHOWING EFFECT OF SKATOL ON THE ADRENAL OUTPUT OF	24
	A Dog. (Cannon Test)	25
Fig.	8.—Tracing Showing Effect of Pregnancy on the Adrenal Output of a Cat. (Cannon Test).	26
Fig.	9.—Comparative Effects of Excision of the Adrenal Glands and of Excessive Administration of Adrenin on the Brain-cells	20
	or Dogs	20
Fig.	10.—COMPARATIVE EFFECTS OF EXCISION OF THE THYROID AND EXCES- SIVE FREDING WITH THYROID EXTRACT ON THE BRAIN-CELLS OF	- 8
	Docs	21
Fig.	II.—THE EFFECTS OF EXTREME ACTIVATION ON THE BRAIN, ADRENALS, AND LIVER OF A SOLDIER WHO HAD SUFFERED FROM HUNGER,	31
	Thirst, and Loss of Sleep; Had Made the Exteadedinary Forced March of 180 Miles from Mons to the Marnk; In the Midst of that Great Battle was Wounded by the Ex-	
Free	PLOSION OF A SHELL; LAY FOR HOURS WAITING FOR HELP, AND DIED FROM EXHAUSTION SOON AFTER REACHING THE AMBULANCE 12.—TRACING ILLUSTRAINING PROTECTIVE EFFECT OF MORPHIN IN ANA-	33
****	PHYLACTIC SHOCK	27
Fig.	13.—PROTECTIVE EFFECT OF MORPHIN AND OF NITROUS OXID ON THE BRAIN-CRUSS UP DOGS WHICH HAD RECRIVED INJECTIONS OF	
	DIPHTHERIA TOXIN	39
Fig.	14.—PROTECTIVE EFFECT OF MORPHIN AND OF NUTROUS OXID ON THE ADRENALS OF DOGS WHICH HAD RECEIVED INJECTIONS OF DIPH-	
	(THERIA TOXIN	41
Fig.	15.—PROTECTIVE EFFECT OF MORPHIN AND OF NITROUS OXID ON THE LIVERS OF DOGS WHICH HAD RECEIVED INJECTIONS OF DIPHTHERIA	1/2
	Toyre	40
Fig.	TOXIN. 16.—THE COMPARATIVE EXPECTS OF AN ACID AND OF AN ALEALI ON THE	40
	Brain-cells of Cats	45
Fig.	17.—THE COMPARATIVE EFFECTS OF AN ACID AND OF AN ALKALI ON THE ADRENALS OF CATS.	47
Fre	18.—THE COMPARATIVE EFFECTS OF AN ACID AND OF AN ALKALI ON THE	Tre.
	LIVERS OF CATS	49
FIG.	19.—Comparison Between the Effects of Surgical Trauma on a Normal Dog and on a Dog Whose Cord Had Been Severed.	5.1
FIG.	20,-SIMILARITY BETWEEN THE FACIES OF ACUTE AND OF CHRONIC EMO-	~ 1
	TIONAL ACTIVATION. 21.—EFFECTS OF VARIOUS FORMS OF CHRONIC ACTIVATION ON THE BRAIN-	57
FIG.	CELIS	50
	9	-49

