# COMPARISONS OF STRUCTURE IN ANIMALS, THE HAND AND THE ARM

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649215256

Comparisons of structure in animals, the hand and the arm by Anonymous

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

## ANONYMOUS

# COMPARISONS OF STRUCTURE IN ANIMALS, THE HAND AND THE ARM

Trieste

Religious Tract Society, 56, Paternoster Row.

## THE MONTHLY VOLUME,

LACH BOOK COMPLETE IN ITSELF, OCCASIONALLY ILLUSTRATED WITH ENGRAVINGS, AND CONTAIN-ING ONE HUNDRED AND NINETY-TWO PAGES, IN A GOOD, BOLD TYPE.

SINPENCE, IN FANCY PAPER COVERS.

TENPENCE, IN CLOTH BOARDS, GILT EDGES.

") never wanted articles on religious subjects half so much as articles on common subjects, written with a decidedly Christian tone." - Dn. Ansoir.

THE Committee of the RELIGIOUS TRACT SOCIETY have resolved to publish a volume every month, adapted to the new development and growing intelligence of the times. This series, with the exception of a few reprints, will be ORIGINAL; from the pens of authors of ability in their respective - departments in literature and science :- SCRIP-TURAL ; in the principles in which they are written : -POPULAR ; in their style ; so that instead of being limited to one class of the community, they may be generally acceptable :- PORTABLE; that they may serve as "hand-books" abroad and at home : -and ECONOMICAL; the twelve volumes of a yearcosting less than three half-pence per week. Thus while the MONTHLY SERIES will be fully adapted to the educated FAMILIES of our land, to DAY and SUNDAY SCHOOLS and to the LIBRARIES. of mechanics and others, they will supply interesting and valuable reading to a large number of the people, who can only spare time enough for the

perusal of a small volume, and whose means will not allow of a more costly purchase.

#### ISSUE OF THE FIRST YEAR.

1. THE LIFE OF JULIUS C.ESAR.

2. GLIMPSES OF THE DARK AGES. 8. WILD FLOWERS OF THE YEAR.

4. JAMAICA ENSLAVED AND FREE.

5. OUR SONG BIB 08.

6, SOLAR SYSTEM, Part I, By Dr. Dick.

7. THE TASK AND OTHER POEMS, by WM. COWPER. 8. SNETCHES OF THE WALDENSES.

9. SOLAR SYSTEM, Part II. By Dr. DICE, 10. LIFE OF LUTHER.

II. BLIGHTS OF THE WILEAT. By the Rev. E. SIDNET, N.A.

12. ANCIENT JERUSALEM. By Dr. KITTO.

13. PHILOSOPHY OF THE PLAN OF SALVATION.

#### ISSUE OF THE SECOND YEAR.

14. MAN, IN HIS PHYSICAL, INTELLECTUAL, SOCIAL, AND MORAL RELATIONS. By W. NEWKHAM, Esq.

15. MODERN JERUSALEM. By Dr. K1910.

16. LIFE OF CYRUS.

17. GARDEN PLOWERS OF THE YEAR.

15. DAWN OF MODERN CIVILIZATION.

19. LIFE OF LADY RUSSELL.

20. OUR DOMESTIC FOWLS.

21. COWPER'S TRUTH, AND OTHER POEMS. 22. LIFE OF MOHAMMED.

23, SKETCHES OF THE FRENCH REVOLUTION.

24. THE CAVES OF THE EARTH.

25. EMINENT MEDICAL MEN.

#### ISSUE OF THE THIRD YEAR.

26, LIFE OF MARTIN HOOS,

27. SELF-IMPROVEMENT.

28. COMPARISONS OF STRUCTURE IN ANIMALS.

Other Volumes are preparing.

The Committee of the RELIGIOUS TRACT SOCIETY look with confidence to their friends, to aid them in widely distributing their MONTHLY VOLUME, in FAMILIES, SCHOOLS, and GENERAL LIBRARIES : while they entreat on this new effort the effectual blessing of Almighty God.

## COMPARISONS

OF

## STRUCTURE IN ANIMALS.

THE HAND AND THE ARM.

LONDON:

THE RELIGIOUS TRACT SOCIETY :

Instituted 1799.

### CONTENTS.

CT	IAP	TEF	( I					- 22
							$\mathbf{P}_{i}$	AGE
Preliminary Observations	<u>8</u> 6	<u>(2)</u>	$\gtrsim 2$	39	32	1.253	$\langle T \rangle$	5

#### CHAPTER IL.

On the Anterior Limbs of Quadrupods . . . . 24

#### CHAPTER III.

Anterior Limbs of Birds, Reptiles, and Fishes . . . 65

#### CHAPTER IV.

On the Equivalents of the Hand as an organ of Touch . 100

#### CHAPTER V.

On the Spinal Column of Quadrupeds . . . . 126

#### CONTENTS.

#### CHAPTER VI.

PAGE

#### CHAPTER VII.

The Spinal Column of Reptiles . . . . . . . . 154

#### CHAPTER VIII.



### iv

H

### COMPARISONS OF STRUCTURE IN ANIMALS.

### CHAPTER I.

#### PRELIMINARY OBSERVATIONS.

The intelligent reader need not be apprised that the field of Comparative Anatomy is vast and extensive. So rich is the profusion of objects which it offers for contemplation, that the most powerful minds, after years of toilsome investigation and research, leave the greater part still unexplored ; and though student succeeds student, and labourer follows labourer, the philosopher of a distant period, as ho recognises the hand of God, will find occasion to say, with one of old, "Lo, these are parts of His ways : but how little a portion is heard of him !" Our sketch of some of the parts of animal structure will be

#### 6 COMPARISONS OF STRUCTURE IN ANIMALS.

but slight : our aim is to touch upon points more especially interesting to the general reader ; while, at the same time, we shall endeavour to furnish some illustrations of the wisdom of that great, all-powerful God, who has condescended to reveal himself to fallen man, not only as the God of nature, but also as the God of providence and grace.

In the fulfilment of our plan, we shall endeavour to avoid the use of technical terms, even at the expense of precision of language; for, unless the reader be perfectly familiar with them, such terms tend to embarrass and perplex, perhaps even to deter him from pursuing a subject replete with instruction and well calculated to expand the intellect.

By way of introduction, it may be desirable to take a brief and general survey of the animal kingdom, in order that some idea may be entertained relative to its extent, and the vast multiplicity and diversity of beings which it comprehends—from man downwards to the microscopic animaleule.

For every conceivable mode of existence are animals created, and with parts, form, and organization adapted to their several exigencies. Setting man out of the question, highly exalted