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Charles Bell

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The Hand

This 1833 study of the hand by Sir Charles Bell, a leading professor of surgery and anatomy, is one of the Bridgewater Treatises, which arose from the preoccupation of nineteenth-century Christians with interpreting God's creation in the light of contemporary scientific developments. Bell's treatise suggests that by looking in close detail at small subjects, God's role in creation can be clearly seen, whereas more general studies of the universe and the great natural cycles of astronomy and geology can obscure the intelligence behind their specific features. Bell stresses the importance of the hand in human history, the progress of society and the development of technology and design. He considers aspects of the mechanical systems of other animals, and sees their structure as a product of their function. This comparison serves to link humans with other creatures, but also defines their superiority through the sublimity of design.

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**THE BRIDGEWATER TREATISES
ON THE POWER WISDOM AND GOODNESS OF GOD
AS MANIFESTED IN THE CREATION**

TREATISE IV

**THE HAND ITS MECHANISM AND VITAL ENDOWMENTS
AS EVINCING DESIGN**

BY SIR CHARLES BELL K. G. II.

F. R. S. L. & E.

PROF. ROY. COLL. SURG. AND MEM. COUNCIL.

[SECOND EDITION]

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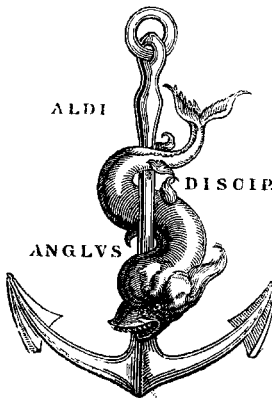
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LONDON
WILLIAM PICKERING
1833

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NOTICE.

THE series of Treatises, of which the present is one, is published under the following circumstances :

THE RIGHT HONOURABLE and REVEREND FRANCIS HENRY, EARL of BRIDGEWATER, died in the month of February, 1829; and by his last Will and Testament, bearing date the 25th of February, 1825, he directed certain Trustees therein named to invest in the public funds the sum of Eight thousand pounds sterling; this sum, with the accruing dividends thereon, to be held at the disposal of the President, for the time being, of the Royal Society of London, to be paid to the person or persons nominated by him. The Testator further directed, that the person or persons selected by the said President should be appointed to write, print, and publish one thousand copies of a work *On the Power, Wisdom, and Goodness of God, as manifested in the Creation; illustrating such work by all reasonable arguments, as for instance the variety and formation of God's creatures in the animal, vegetable, and mineral kingdoms; the effect of digestion, and thereby of conversion; the construction of the hand of man, and an infinite variety of other arguments; as also by discoveries ancient and modern, in arts, sciences, and the whole extent of literature.* He desired, moreover, that the profits arising from the sale of the works so published should be paid to the authors of the works.

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The late President of the Royal Society, Davies Gilbert, Esq. requested the assistance of his Grace the Archbishop of Canterbury and of the Bishop of London, in determining upon the best mode of carrying into effect the intentions of the Testator. Acting with their advice, and with the concurrence of a nobleman immediately connected with the deceased, Mr. Davies Gilbert appointed the following eight gentlemen to write separate Treatises on the different branches of the subject as here stated :

THE REV. THOMAS CHALMERS, D.D.

PROFESSOR OF DIVINITY IN THE UNIVERSITY OF EDINBURGH.

ON THE POWER, WISDOM, AND GOODNESS OF GOD
AS MANIFESTED IN THE ADAPTATION
OF EXTERNAL NATURE TO THE MORAL AND
INTELLECTUAL CONSTITUTION OF MAN.

JOHN KIDD, M. D. F. R. S.

REGIUS PROFESSOR OF MEDICINE IN THE UNIVERSITY OF OXFORD.

ON THE ADAPTATION OF EXTERNAL NATURE TO THE
PHYSICAL CONDITION OF MAN.

THE REV. WILLIAM WHEWELL, M. A. F. R. S.

FELLOW OF TRINITY COLLEGE, CAMBRIDGE.

ASTRONOMY AND GENERAL PHYSICS CONSIDERED WITH
REFERENCE TO NATURAL THEOLOGY.

SIR CHARLES BELL, K. G. H. F. R. S. L. & E.

THE HAND: ITS MECHANISM AND VITAL ENDOWMENTS
AS EVINCING DESIGN.

PETER MARK ROGET, M D.

FELLOW OF AND SECRETARY TO THE ROYAL SOCIETY.

ON ANIMAL AND VEGETABLE PHYSIOLOGY.

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THE REV. WILLIAM BUCKLAND, D. D. F. R. S.

CANON OF CHRIST CHURCH, AND PROFESSOR OF GEOLOGY IN THE
UNIVERSITY OF OXFORD.

ON GEOLOGY AND MINERALOGY.

THE REV. WILLIAM KIRBY, M. A. F. R. S.

ON THE HISTORY, HABITS, AND INSTINCTS OF ANIMALS.

WILLIAM PROUT, M. D. F. R. S.

**ON CHEMISTRY, METEOROLOGY, AND THE FUNCTION
OF DIGESTION.**

**HIS ROYAL HIGHNESS THE DUKE OF SUSSEX, Presi-
dent of the Royal Society, having desired that no unneces-
sary delay should take place in the publication of the
above mentioned treatises, they will appear at short inter-
vals, as they are ready for publication.**

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WHEN one has to maintain an argument, he will be listened to more willingly if he is known to be unbiassed, and to express his natural sentiments. The reflections contained in these pages have not been suggested by the occasion of the Bridgewater Treatises, but arose, long ago, in a course of study, directed to other objects. An anatomical teacher, who is himself aware of the higher bearings of his science, can hardly neglect the opportunity which the demonstrations before him afford, of making an impression upon the minds of those young men who, for the most part, receive the elements of their professional education from him; and he is naturally led to indulge in such trains of reflection as will be found in this essay.

So far back as the year 1813, the late excellent vicar of Kensington, Mr. Rennell,

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attended the author's lectures, and found him engaged in maintaining the principles of the English school of Physiology, and in exposing the futility of the opinions of those French philosophers and physiologists, who represented life as the mere physical result of certain combinations and actions of parts, by them termed Organization.

That gentleman thought that the subject admitted of an argument which it became him to use, in his office of "Christian Advocate"* This will show the reader that the sentiments and the views, which a sense of duty to the young men about him induced the author to deliver, and which Mr. Rennell heard only by accident, arose naturally out of those studies.

It was at the desire of the Lord Chancellor that the author wrote the essay on "Animal Mechanics;" and it was probably from a belief that the author felt the importance of the subjects touched upon in that essay, that his lordship was led to do him the further honour of asking him to join with him in illustrating the "Natural Theology" of Dr. Paley

An office in the University of Cambridge.

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That request was especially important, as showing that the conclusions to which the author had arrived, were not the peculiar or accidental suggestions of professional feeling, nor of solitary study, which is so apt to lead to enthusiasm, but that the powerful and masculine mind of Lord Brougham was directed to the same object: that he, who in early life was distinguished for his successful prosecution of science, and who has never forgotten her interests amidst the most arduous and active duties of his high station, encouraged and partook of these sentiments.

Thus, from at first maintaining that design and benevolence were every where visible in the natural world, circumstances have gradually drawn the author to support these opinions more ostentatiously and elaborately than was his original wish.

The author cannot conceal from himself the disadvantages to which he is exposed in coming before the public, not only with a work, in some measure extra-professional, but with associates, distinguished by classical elegance of style, as well as by science. He must entreat the reader to remember that he was, early and long, devoted to the study

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of anatomy; and with a feeling (right or wrong) that it surpassed all other studies, in interest and usefulness. This made him negligent of those acquirements which would have better fitted him for the honourable association in which he has been placed: and no one can feel more deeply that the suggestions which occur in the intervals of an active professional life, must always be unfavorably contrasted with what comes of the learned leisure of a College.

The author has to acknowledge his obligation to Davies Gilbert, esq. late President of the Royal Society, for having assigned to him a task of so much interest. When he undertook it, he thought only of the pleasure of pursuing these investigations, and perhaps too little of what the public were entitled to expect from an Essay composed in circumstances so peculiar, and forming a part in “this great argument.”

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