

CONTENTS.

BOOK I.

THINGS AND THEIR ATTRIBUTES.

CHAPTER I.

INTRODUCTORY.

	PAGE
'Things'	1
'Attributes'	"
'Adjuncts'	"

CHAPTER II.

CLASSIFICATION.

'Classification'	1 $\frac{1}{2}$
'Class'	"
'Peculiar' Attributes	"
'Genus'	"
'Species'	"
'Differentia'	"
'Real' and 'Unreal', or 'Imaginary', Classes	"
'Individual'	2
A Class regarded as a single Thing	2 $\frac{1}{2}$

CHAPTER III.

DIVISION.

§ 1.

Introductory.

'Division'	3
'Codivisional' Classes	"

§ 2.

Dichotomy.

'Dichotomy'	3½
Arbitrary limits of Classes	"
Subdivision of Classes	4

CHAPTER IV.

NAMES.

'Name'	4½
'Real' and 'Unreal' Names	"
Three ways of expressing a Name	"
Two senses in which a plural Name may be used	5

CHAPTER V.

DEFINITIONS.

'Definition'	6
Examples worked as models	"

BOOK II.

PROPOSITIONS.

CHAPTER I.

PROPOSITIONS GENERALLY.

§ 1.

Introductory.

Technical meaning of "some"	8
'Proposition'	"
'Normal form' of a Proposition	"
'Subject', 'Predicate', and 'Terms'	9

§ 2.

Normal form of a Proposition.

Its four parts :—

(1) 'Sign of Quantity'	9
(2) Name of Subject	"
(3) 'Copula'	"
(4) Name of Predicate	"

§ 3.

Various kinds of Propositions.

Three kinds of Propositions :—

(1) Begins with "Some". Called a ' Particular ' Proposition: also a Proposition ' in I '	10
(2) Begins with "No". Called a ' Universal Negative ' Proposition: also a Proposition ' in E '	"
(3) Begins with "All". Called a ' Universal Affirmative ' Proposition: also a Proposition ' in A '	"

§ 3.

(continued)

A Proposition, whose Subject is an Individual, is to be regarded as Universal	10
Two kinds of Propositions, 'Propositions of Existence', and 'Propositions of Relation'	"

CHAPTER II.

PROPOSITIONS OF EXISTENCE.

'Proposition of Existence'	11
--------------------------------------	----

CHAPTER III.

PROPOSITIONS OF RELATION

§ 1.

Introductory.

'Proposition of Relation'	12
'Universe of Discourse,' or 'Univ.'	"

§ 2.

Reduction of a Proposition of Relation to Normal form.

Rules	13
Examples worked	"

§ 3.

A Proposition of Relation, beginning with "All", is a Double Proposition.

Its equivalence to two Propositions	17
---	----

§ 4.

*What is implied, in a Proposition of Relation,
as to the Reality of its Terms?*

Propositions beginning with "Some"	18
" " " No "	"
" " " All "	"

§ 5.

*Translation of a Proposition of Relation into
one or more Propositions of Existence.*

Rules	19
Examples worked	"

BOOK III.

THE BILITERAL DIAGRAM.

CHAPTER I.

SYMBOLS AND CELLS.

The Diagram assigned to a certain Set of Things, viz. our Univ.	22
Univ. divided into 'the x -Class' and 'the x' -Class' . .	23
The North and South Halves assigned to these two Classes	"
The x -Class subdivided into 'the xy -Class' and 'the xy' -Class'	"
The North-West and North-East Cells assigned to these two Classes	"
The x' -Class similarly divided	"
The South-West and South-East Cells similarly assigned . .	"
The West and East Halves have thus been assigned to 'the y -Class' and 'the y' -Class'	24
Table I. Attributes of Classes, and Compartments, or Cells, assigned to them	25

CHAPTER II.

COUNTERS.

Meaning of a Red Counter placed in a Cell	26
" " " " on a Partition	"
American phrase " sitting on the fence "	"
Meaning of a Grey Counter placed in a Cell	"

CHAPTER III.

REPRESENTATION OF PROPOSITIONS.

§ 1.

Introductory.

The word "Things" to be henceforwards omitted	27
'Unilateral' Proposition	"
'Bilateral' do.	"
Proposition 'in terms of' certain Letters	"

§ 2.

Representation of Propositions of Existence.

The Proposition "Some x exist"	28
Three other similar Propositions	"
The Proposition "No x exist"	"
Three other similar Propositions	29
The Proposition "Some xy exist"	"
Three other similar Propositions	"
The Proposition "No xy exist"	"
Three other similar Propositions	"
The Proposition "No x exist" is <i>Double</i> , and is equivalent to the two Propositions "No xy exist" and "No xy' exist"	30


§ 3.






Representation of Propositions of Relation.

The Proposition "Some x are y "	30
Three other similar Propositions	"
The Proposition "Some y are x "	31
Three other similar Propositions	"
Trio of equivalent Propositions, viz.	
"Some xy exist" = "Some x are y " = "Some y are x "	"
' Converse ' Propositions, and ' Conversion '	"
Three other similar Trios	32
The Proposition "No x are y "	"
Three other similar Propositions	"
The Proposition "No y are x "	"
Three other similar Propositions	"
Trio of equivalent Propositions, viz.	
"No xy exist" = "No x are y " = "No y are x "	33
Three other similar Trios	"
The Proposition "All x are y "	"
Seven other similar Propositions	34
The Proposition "All x are y " is <i>Double</i> , and is equivalent to the two Propositions "Some x are y " and "No x are y' "	"
Tables II, III. Representation of Propositions of Existence and Relation	34, 35

CHAPTER IV.

*INTERPRETATION OF BILITERAL DIAGRAM,
WHEN MARKED WITH COUNTERS.*

Interpretation of 	36
And of three other similar arrangements	"

Interpretation of 	36
And of three other similar arrangements	37
Interpretation of 	"
And of three other similar arrangements	"
Interpretation of 	"
And of three other similar arrangements	"
Interpretation of 	"
And of three other similar arrangements	"
Interpretation of 	"
And of seven other similar arrangements	38

BOOK IV.

THE TRILITERAL DIAGRAM.

CHAPTER I.

SYMBOLS AND CELLS.

Change of Biliteral into Triliteral Diagram	39
The xy -Class subdivided into 'the xym -Class' and 'the xym' -Class'	40
The Inner and Outer Cells of the North-West Quarter assigned to these Classes	"
The xy' -Class, the $x'y$ -Class, and the $x'y'$ -Class similarly subdivided	"
The Inner and Outer Cells of the North-East, the South-West, and the South-East Quarters similarly assigned	"

The Inner Square and the Outer Border have thus been assigned to 'the m -Class' and 'the m' -Class'	40
Rules for finding readily the Compartment, or Cell, assigned to any given Attribute or Attributes . . .	"
Table IV. Attributes of Classes, and Compartments, or Cells, assigned to them	42

CHAPTER II.

REPRESENTATION OF PROPOSITIONS IN TERMS OF x AND m , OR OF y AND m .

§ 1.

Representation of Propositions of Existence in terms of x and m , or of y and m .

The Proposition "Some xm exist"	43
Seven other similar Propositions	"
The Proposition "No xm exist"	"
Seven other similar Propositions	44

§ 2.

Representation of Propositions of Relation in terms of x and m , or of y and m .

The Pair of Converse Propositions	
"Some x are m " = "Some m are x "	44
Seven other similar Pairs	"
The Pair of Converse Propositions	
"No x are m " = "No m are x "	"
Seven other similar Pairs	"
The Proposition "All x are m "	45
Fifteen other similar Propositions	"
Tables V, VI, VII, VIII. Representation of Propositions in terms of x and m , or of y and m	46 to 49

CHAPTER III.

*REPRESENTATION OF TWO PROPOSITIONS
OF RELATION, ONE IN TERMS OF x AND m ,
AND THE OTHER IN TERMS OF y AND m ,
ON THE SAME DIAGRAM.*

The Digits "I" and "O" to be used instead of Red and Grey Counters	50
Rules	"
Examples worked	"

CHAPTER IV.

*INTERPRETATION, IN TERMS OF x AND y ,
OF TRILITERAL DIAGRAM, WHEN MARKED
WITH COUNTERS OR DIGITS.*

Rules	53
Examples worked	54

BOOK V.

SYLLOGISMS.

CHAPTER I.

INTRODUCTORY.

'Syllogism'	56
'Premisses'	"
'Conclusion'	"
'Eliminands'	57
'Retinends'	"
'Consequent'	"
The Symbol " \therefore "	"
Specimen-Syllogisms	"

CHAPTER II.

PROBLEMS IN SYLLOGISMS

§ 1.

Introductory.

'Concrete' and 'Abstract' Propositions	59
Method of translating a Proposition from concrete into abstract form	"
Two forms of Problems	"

§ 2.

Given a Pair of Propositions of Relation, which contain between them a Pair of codivisional Classes, and which are proposed as Premisses: to ascertain what Conclusion, if any, is consequent from them.

Rules	60
Examples worked fully	"
The same worked briefly, as models	64

§ 3.

Given a Trio of Propositions of Relation, of which every two contain a Pair of codivisional Classes, and which are proposed as a Syllogism: to ascertain whether the proposed Conclusion is consequent from the proposed Premisses, and, if so, whether it is complete.

Rules	66
Examples worked briefly, as models	"

BOOK VI.

THE METHOD OF SUBSCRIPTS.

CHAPTER I.

INTRODUCTORY.

Meaning of x_1, xy_1 , &c.	70
'Entity'	"
Meaning of x_0, xy_0 , &c.	"
'Nullity'	"
The Symbols " \dagger " and " \P "	"
'Like' and 'unlike' Signs	"

CHAPTER II.

REPRESENTATION OF PROPOSITIONS OF RELATION.

The Pair of Converse Propositions	
" Some x are y " = " Some y are x "	71
Three other similar Pairs	"
The Pair of Converse Propositions	
" No x are y " = " No y are x "	"
Three other similar Pairs	"
The Proposition " All x are y "	72
The Proposition " All x are y " is <i>Double</i> , and is equivalent to the two Propositions " Some x exist" and " No x are y' "	"
Seven other similar Propositions	"
Rule for translating " All x are y " from abstract into subscript form, and <i>vice versa</i>	"

CHAPTER III.

SYLLOGISMS.

§ 1.

Representation of Syllogisms.

Rules	73
-----------------	----

§ 2.

Formulae for Syllogisms.

Three Formulae worked out:—

Fig. I. $xm_0 \dagger ym'_0 \P xy_0$	75
its two Variants (α) and (β)	„
Fig. II. $xm_0 \dagger ym_1 \P x'y_1$	76
Fig. III. $xm_e \dagger ym_0 \dagger m_1 \P x'y'_1$	77
Table IX. Formulae and Rules	78
Examples worked briefly, as models	„

§ 3.

Fallacies.

'Fallacy'	81
Method of finding Forms of Fallacies	82
Forms best stated in words	„
Three Forms of Fallacies:—	
(1) Fallacy of Like Eliminands not asserted to exist	„
(2) Fallacy of Unlike Eliminands with an Entity-Premiss	83
(3) Fallacy of two Entity-Premises	„

§ 4.

Method of proceeding with a given Pair of Propositions.

Rules	84
-----------------	----

BOOK VII.

SORITESES.

CHAPTER I.

INTRODUCTORY.

'Sorites'	8
'Premisses'	,
'Partial Conclusion'	,
'Complete Conclusion' (or 'Conclusion')	,
'Eliminands'	,
'Retinends'	,
'consequent'	,
The Symbol " \therefore "	,
Specimen-Soriteses	8

CHAPTER II.

PROBLEMS IN SORITESES.

§ 1.

Introductory.

Form of Problem	8
Two Methods of Solution	,

§ 2.

Solution by Method of Separate Syllogisms.

Rules	8
Example worked	,

§ 3.

Solution by Method of Underscoring.

'Underscoring'	91
Subscripts to be omitted	"
Example worked fully	92
Example worked briefly, as model	93
Seventeen Examination-Papers	94

BOOK VIII.

EXAMPLES, WITH ANSWERS AND SOLUTIONS.

CHAPTER I.

EXAMPLES.

§ 1.

<i>Propositions of Relation, to be reduced to normal form</i>	97
---	----

§ 2.

<i>Pairs of Abstract Propositions, one in terms of x and m, and the other in terms of y and m, to be represented on the same Trilateral Diagram</i>	98
---	----

§ 3.

<i>Marked Trilateral Diagrams, to be interpreted in terms of x and y</i>	99
--	----

§ 4.

<i>Pairs of Abstract Propositions, proposed as Premises: Conclusions to be found</i>	100
--	-----

§ 5.

<i>Pairs of Concrete Propositions, proposed as Premisses :</i>	
<i>Conclusions to be found</i>	101

§ 6.

<i>Trios of Abstract Propositions, proposed as Syllogisms :</i>	
<i>to be examined</i>	106

§ 7.

<i>Trios of Concrete Propositions, proposed as Syllogisms :</i>	
<i>to be examined</i>	107

§ 8.

<i>Sets of Abstract Propositions, proposed as Premisses for</i>	
<i>Soriteses: Conclusions to be found</i>	110

§ 9.

<i>Sets of Concrete Propositions, proposed as Premisses for</i>	
<i>Soriteses: Conclusions to be found</i>	112

CHAPTER II.

ANSWERS.

Answers to

§ 1	125
§ 2	126
§§ 3, 4	127
§ 5	128
§ 6	130
§ 7	131
§§ 8, 9	132

CHAPTER III.

SOLUTIONS.

§ 1.

Propositions of Relation reduced to normal form.

Solutions for § 1	134
-----------------------------	-----

§ 2.

Method of Diagrams.

Solutions for

§ 4 Nos. 1 to 12	136
§ 5 „ 1 to 12	138
§ 6 „ 1 to 10	141
§ 7 „ 1 to 6	144

§ 3.

Method of Subscripts.

Solutions for

§ 4	146
§ 5 Nos. 13 to 24	147
§§ 6, 7, 8, 9	148 to 157

NOTES	164
------------------------	-----

APPENDIX, ADDRESSED TO TEACHERS	165
--	-----

NOTES TO APPENDIX	195
------------------------------------	-----

INDEX.

§ 1. Tables	197
§ 2. Words &c. explained	„