

ELECTRONIC SUPPLEMENTARY MATERIAL

Darwin's perception of nature and the question of disenchantment: a semantic analysis across the six editions of *On the Origin of Species*

History and Philosophy of the Life Sciences

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Table 1: Total count of the occurrences of aesthetic-emotional and religious or mystical adjectives and adverbs in the six editions of the *Origin*

Adjectives	Occurrences					
	1 st ed.	2 nd ed.	3 rd ed.	4 th ed.	5 th ed.	6 th ed.
Admirable	19	19	20	20	21	23
Admirably	2	2	2	3	2	6
Astonishing	8	8	9	11	12	12
Astonishingly	2	2	2	2	2	2
Attractive	6	6	6	6	4	4
Beautiful	15	15	19	34	34	35
Beautifully	5	5	6	7	7	9
Delicate	2	2	4	5	5	10
Delicately	2	2	2	2	2	2
Divine	3	4	2	5	2	2
Enthusiastic	1	1	1	1	1	1
Exquisite	2	2	2	2	2	2
Exquisitely	2	2	2	2	3	3
Extraordinary	21	22	23	24	27	32
Extraordinarily	12	11	12	13	12	12
Formidable	0	0	0	0	2	3
Gorgeous	1	1	1	2	2	2
Harmonious	1	1	1	2	2	1
Harmoniously	0	0	0	1	1	1
Holy	5	5	0	9	0	0
Immaterial	2	2	3	3	4	4
Magnificent	1	1	1	1	1	1
Magnificently	0	0	0	1	1	1
Marvellous	5	5	5	5	5	6
Marvellously	0	0	0	1	1	0
Miraculous	2	3	5	5	5	5
Mysterious	4	4	4	4	4	5
Mystical	0	0	1	1	1	1
Nicely	3	3	3	3	3	3
Picturesque	0	0	0	0	1	0
Pretty	3	3	3	3	2	2
Prodigious	9	9	9	9	7	9
Sacred	1	1	1	2	1	1
Splendid	2	2	2	2	2	2
Stupendous	1	1	1	1	1	1
Supernatural	0	1	1	2	1	1
Sweet	5	5	5	5	4	4
Wonderful	27	27	27	29	33	41
Wonderfully	7	7	6	8	8	16
Wondrous	1	1	2	2	2	2

Graph 1: Visual distribution of the occurrences of aesthetic-emotional and religious or mystical adjectives and adverbs in the six editions of the *Origin*

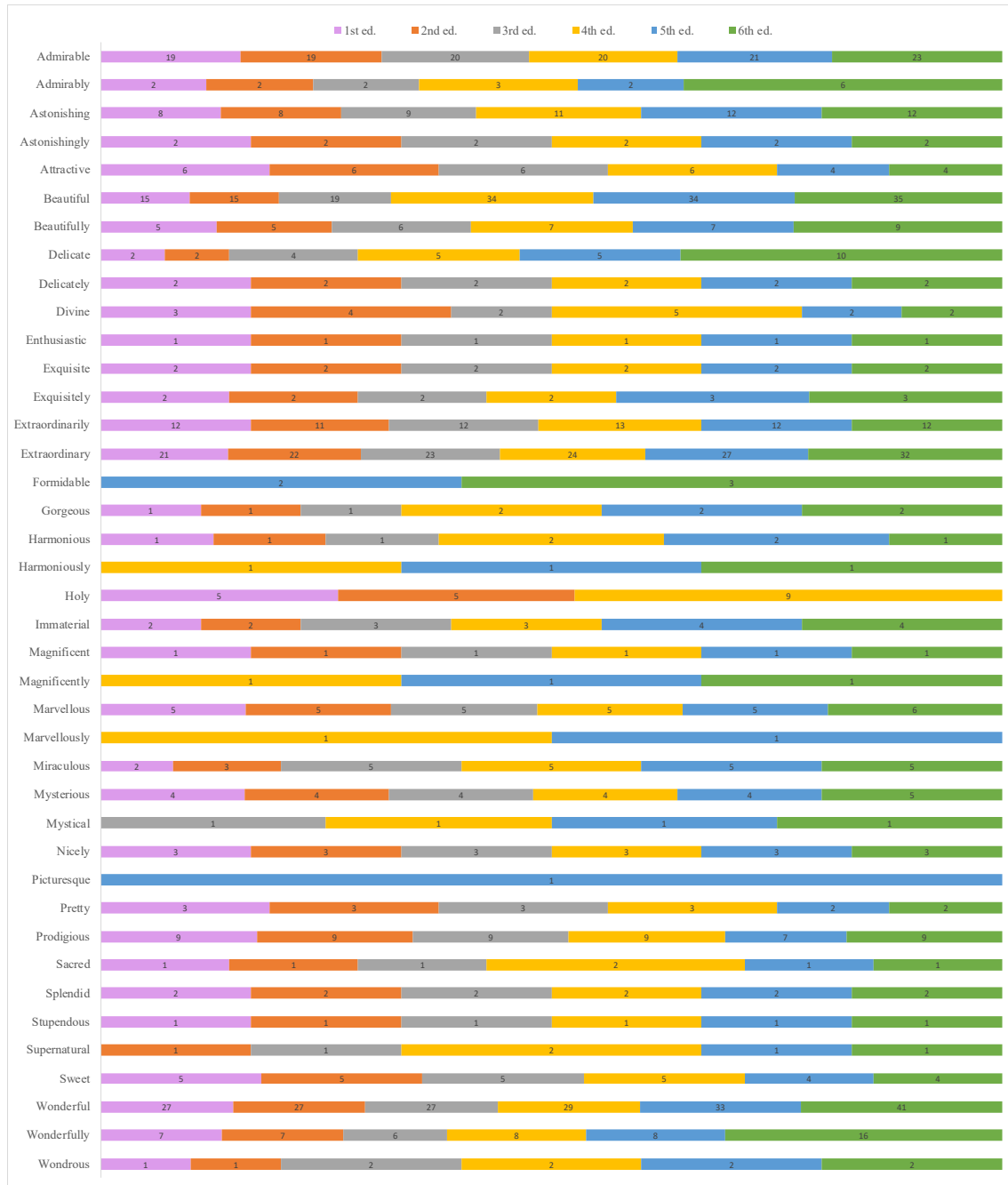


Table 2: Expressions affected by aesthetic-emotional and religious or mystical adjectives and adverbs in the six editions of the *Origin*

Adjectives and Adverbs	Affected expressions					
	1 st ed. 1859	2 nd ed. 1860	3 rd ed. 1861	4 th ed. 1866	5 th ed. 1869	6 th ed. 1872
ADMIRABLE	-VARIETIES (strawberry) -WORK (4 times) -DIVISION of labour (ants) -OBSERVERS (2 times) -LESSON (to stand on the North Downs...) -PALAEONTOLOGIST (Edward Forbes) -MEMOIRS (Mr. Prestwich) -'INTRODUCTION to...' (Dr. Hooker) -CLEARNESS (Dr. Hooker) -ACCOUNT of Bermuda (Mr. J. M. Jones) - <u>ZEAL</u> and researches of Mr. Wallace - <u>MEMOIR</u> (Dr. Hooker) -DRAWINGS by Prof. Huxley -ARCHITECTURAL powers (hive-bee's) -MANNER (tracing the former migrations thanks to geology)	Same as 1 st ed.	Same as 1 st ed. - LESSON (to stand on the North Downs...) + -REVIEW (of the <i>Origin</i> by Asa Gray) -FORCE and clearness (Mr. Wallace's promulgation of natural selection)	Same as 3 rd ed. - DIVISION of labour (ants) - REVIEW (of the <i>Origin</i> by Asa Gray) + -PAPER (by Naudin) -RESEARCHES (Prof. Retimeyer) - <u>RESEARCHES</u> of Mr. Wallace (see 1 st ed.) - <u>FLORA</u> (Dr. Hooker) (see 1 st ed.)	Same as 4 th ed. + -ESSAY (by Nageli)	Same as 5 th ed. - CLEARNESS (Dr. Hooker) + -MEMOIR (Hensen) -ART and force (Mivart objections against natural selection) -MEMOIRS (Mr. Croll)
OCCURRENCES	19	19	20	20	21	23
ADMIRABLY	-ADAPTED (woodpecker) -DISCUSSED accounts by Alph. De Candolle	Same as 1 st ed.	Same as 1 st ed.	Same as 1 st ed. + -WELL (<u>Agassiz's</u> accordance with natural selection)	Same as 4 th ed. - DISCUSSED accounts by Alph. De Candolle -WELL (<u>Agassiz's and others'</u> accordance with Darwin's theory) (see 4 th ed.)	Same as 5 th ed. + -ADAPTED (Pleuronectidae) -ADAPTED (a highly complex pollinium) -ADAPTED (species) -AGREE with the theory of descent with modification (leading facts in palaeontology)
OCCURRENCES	2	2	2	3	2	6
ASTONISHING	-DIVERSITY of the breeds -IMPROVEMENT in many	Same as 1 st ed.	Same as 1 st ed. +	Same as 3 rd ed. +	Same as 4 th ed.	Same as 5 th ed.

	florists' flowers -DISTANCE from tree to tree -POWER of diving -NUMBER of experiments -FACT -RAPIDITY (spreading of species) -WASTE of pollen		-NUMBER of species	-One of the most astonishing FACTS -FACT (a delicate branching coralline producing a host of huge floating jelly-fishes)	-RESULT	
OCCURRENCES	8	8	9	11	12	12
ASTONISHINGLY	-IMPROVED breeds by crossing them -RAPID increase of various animals	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>
OCCURRENCES	2	2	2	2	2	2
ATTRACTIVE	-PARTNER -PEACOCK (attractive to all his hen birds) -Horn-like PROTUBERANCES (attractive to the females) -FLOWERS -PLANT (attractive to insects) (2 times)	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> – Horn-like PROTUBERANCES (attractive to the females) FLOWERS	<i>Same as 5th ed.</i>
OCCURRENCES	6	6	6	6	4	4
BEAUTIFUL	-BLUE colour (bird) -RACES of plants -CO-ADAPTATIONS -ADAPTATION/S (2 times) -DIVERSITY and proportion of kinds -MALES -Really beautiful and elaborate CONTRIVANCE -RAMIFICATIONS -And harmonious DIVERSITY of nature -CONTRIVANCE -ADAPTATION (green colour) -WORK (bees')	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> + -ADAPTATIONS -CO-ADAPTATIONS - Really wondrous and beautiful ORGANISATION -MAP (Prof. H. D. Rogers')	<i>Same as 3rd ed.</i> + -CRYSTALLINE LENS -ORGANIC BEINGS -OBJECTS (3 times) -VOLUTE and CONE SHELLS -PRODUCTIONS of nature (flowers) -FLOWERS (2 times) -FRUITS -MALE ANIMALS, BIRDS, FISHES, MAMMALS, BUTTERFLIES, <u>INSECTS</u> -MALES	<i>Same as 3rd ed.</i> – ADAPTATION (green colour) COLOURS + -ADAPTATION -ANIMALS	<i>Same as 5th ed.</i> – ADAPTATION FRUITS LIVING OBJECTS + -ADAPTATION (green colour) -And curious ADAPTATIONS -And complex STRUCTURE (shoveller-duck) -THE IDEA of what is beautiful -MALE ANIMALS, BIRDS, FISHES, <u>REPTILES</u> ,

	-Perfect and beautiful ADAPTATION of the larva -Endless FORMS			-COLOURS (2 times) -LIVING OBJECTS		MAMMALS, BUTTERFLIES (see 4 th ed.)
OCCURRENCES	15	15	19	34	34	35
BEAUTIFULLY	-PLUMED seed of the dandelion -ADAPTED to its end (structure of a comb) -HOOKED seeds -CONSTRUCTED natatory legs -ADAPTING (power)	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> + -RELATED to complex conditions of life (parts of organic beings)	<i>Same as 3rd ed.</i> + -COLOURED (male and female)	<i>Same as 4th ed.</i>	<i>Same as 4th ed.</i> + -ADAPTED (giraffe's frame) -ADAPTED (structures)
OCCURRENCES	5	5	6	7	7	9
DELICATE	-SHELLS -HEXAGONAL WALLS	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> + -NATURE (quality) -Cell-constructing WORK	<i>Same as 3rd ed.</i> + -BRANCHING CORALLINE	<i>Same as 4th ed.</i>	<i>Same as 4th ed.</i> – -Cell-constructing WORK + -INHABITANTS of the cells -FILAMENTS -MEMBRANE -TEXTURE -INNER COAT of the eye -Fleshy ORGANS
OCCURRENCES	2	2	4	5	5	10
DELICATELY	-DIFFUSED colour (by the bees) -As delicately as a painter could have done with his brush	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>
OCCURRENCES	2	2	2	2	2	2
DIVINE	-POWER (citing Whewell) -LOVE (bibliography) (2 times)	<i>Same as 1st ed.</i> + -AUTHOR	<i>Same as 2nd ed.</i> – -LOVE (bibliography) (2 times)	<i>Same as 2nd ed.</i> + -ELEMENTS (bibliography)	<i>Same as 3rd ed.</i>	<i>Same as 3rd ed.</i>
OCCURRENCES	3	4	2	5	2	2
ENTHUSIASTIC	-ADMIRATION (structure of a comb)	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>
OCCURRENCES	1	1	1	1	1	1
EXQUISITE	-ADAPTATIONS -STRUCTURE of a comb	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>
OCCURRENCES	2	2	2	2	2	2

EXQUISITELY	-CONSTRUCTED hooks -ADAPTED parts and organs	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> + -FEATHERED gills	<i>Same as 5th ed.</i>
OCCURRENCES	2	2	2	2	3	3
EXTRAORDINARY	-COMBINATION of circumstances -Inherent TENDENCY to vary -FACT (2 times) -CAPACITY -MANNER (Proteolepas' loss of shell) -DEGREE -MANNER (development of a part) (3 times) -AMOUNT of modification (3 times) -SIZE -MANNER (development of an organ) -Well-ascertained FACTS (emphasis) -INSTINCT - <u>CASE</u> of Hippeastrum -ABUNDANCE of the individuals -MANNER (spreading of European productions) -DIFFICULTY	<i>Same as 1st ed.</i> + -Shaped PIECES of bone	<i>Same as 1st ed.</i> - -Shaped PIECES of bone + -INSTINCT -FORCE	<i>Same as 3rd ed.</i> - -FORCE + -CASES -MANNER (variation of the eggs of the Australian Bronze Cuckoo)	<i>Same as 4th ed.</i> - -MANNER (variation of the eggs of the Australian Bronze cuckoo) + -OUT-GROWTHS -ADAPTATION -DEGREE in colour - <u>DEGREE</u> in the length - <u>CASES</u> of Hippeastrum, Passiflora (see 1 st ed.)	<i>Same as 5th ed.</i> + -MANNER -DEGREE -HABIT of pecking holes -CASES -TYPE - <u>MANNER</u> in the length (see 5 th ed.)
OCCURRENCES	21	22	23	24	27	32
EXTRAORDINARILY	-ABNORMAL species -RAPID increase of naturalised productions -SEVERE mortality -DEVELOPED part or organ (3 times) -GREAT modification -LONG horns -DIFFERENT -RARE gales of wind -SHAPED pieces of bone	<i>Same as 1st ed.</i> - -SHAPED pieces of bone	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> + -COMPLEX subject	<i>Same as 4th ed.</i> - -DIFFER in length and form of beak	<i>Same as 5th ed.</i>

	-DIFFER in length and form of beak					
OCCURRENCES	12	11	12	13	12	12
FORMIDABLE	-	-	-	-	-OBJECTION -BARRIER (sea)	<i>Same as 5th ed.</i> + -ARRAY (objections against natural selection)
OCCURRENCES	0	0	0	0	2	3
GORGEOUS	-PLUMAGE (birds of paradise)	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> + -BIRDS	<i>Same as 4th ed.</i>	<i>Same as 4th ed.</i>
OCCURRENCES	1	1	1	2	2	2
HARMONIOUS	-DIVERSITY of nature	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> + -BEAUTY	<i>Same as 4th ed.</i>	<i>Same as 1st ed.</i>
OCCURRENCES	1	1	1	2	2	1
HARMONIOUSLY	-	-	-	-BLENDED forms (citing Dr. Seemann)	<i>Same as 4th ed.</i>	<i>Same as 4th ed.</i>
OCCURRENCES	0	0	0	1	1	1
HOLY	-LAND (3 times) (bibliography) -ALTAR (bibliography) -PLACES (bibliography)	<i>Same as 1st ed.</i>	-	<i>Same as 1st ed.</i> + -SCRIPTURE (2 times) (bibliography) -LAND (2 times) (bibliography)	-	-
OCCURRENCES	5	5	0	9	0	0
IMMATERIAL	-For us (2 times)	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> + -Whether or not...	<i>Same as 3rd ed.</i>	<i>Same as 3rd ed.</i> + -Whether or not...	<i>Same as 5th ed.</i>
OCCURRENCES	2	2	3	3	4	4
MAGNIFICENT	-Compound EYES (chrysalis stage butterflies)	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>
OCCURRENCES	1	1	1	1	1	1
MAGNIFICENTLY	-	-	-	-COLOURED butterflies	<i>Same as 4th ed.</i>	<i>Same as 4th ed.</i>
OCCURRENCES	0	0	0	1	1	1
MARVELLOUS	-AMOUNT of diversification -INSTINCT -INSTINCTS -FACT -MANNER (islands of the Galapagos Archipelago)	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> - -MANNER (islands of the Galapagos Archipelago tenanted by very closely related	<i>Same as 5th ed.</i> - -INSTINCT + -Yet not absolutely perfect CHARACTERS

	tenanted by very closely related species)				species) + -FACT (tenanted islands of the Galapagos Archipelago)	-CASE of Cecidomyia
OCCURRENCES	5	5	5	5	5	6
MARVELLOUSLY	-	-	-	-PERFECT <u>attributes</u> (the eye)	-PERFECT <u>characters</u> (the eye) (see 4 th ed.)	-
OCCURRENCES	0	0	0	1	1	0
MIRACULOUS	-ACT/S of creation (2 times)	<i>Same as 1st ed.</i> + -What is supernatural or miraculous (citing Butler)	<i>Same as 2nd ed.</i> + -INTERPOSITION -PROCESS	<i>Same as 3rd ed.</i>	<i>Same as 3rd ed.</i>	<i>Same as 3rd ed.</i>
OCCURRENCES	2	3	5	5	5	5
MYSTERIOUS	-LAWS of the correlation of growth -CAUSES -The SUCCESSION of the same types of structure... ceases to be mysterious -A MANNER (inhabitants linked together)	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> + -CASES of correlation
OCCURRENCES	4	4	4	4	4	5
MYSTICAL	-	-	-NATUR- PHILOSOPHIE (reference to Oken's work)	<i>Same as 3rd ed.</i>	<i>Same as 3rd ed.</i>	<i>Same as 3rd ed.</i>
OCCURRENCES	0	0	1	1	1	1
NICELY	-BALANCED forces (2 times) -BALANCED scale in the struggle for life	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>
OCCURRENCES	3	3	3	3	3	3
PICTURESQUE	-	-	-	-	-BEAUTY in scenery	-
OCCURRENCES	0	0	0	0	1	0
PRETTY	-CLEAR -FREELY	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> —	<i>Same as 5th ed.</i>

	-WELL				-CLEAR	
OCCURRENCES	3	3	3	3	2	2
PRODIGIOUS	-NUMBER of plants -AMOUNT of difference (2 times) -QUANTITY of fluid nectar -DIFFERENCE (between ants) -MOVEMENTS (rocks) -LAPSE of time -VICISSITUDES of climate -GEOGRAPHICAL revolutions	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> – -DIFFERENCE (between ants) -LAPSE of time	<i>Same as 5th ed.</i> + -LEAPS (monkey's tail) -TRANSFORMATIONS
OCCURRENCES	9	9	9	9	7	9
SACRED	-BEETLE of the Egyptians	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> + PLACES (bibliography)	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>
OCCURRENCES	1	1	1	2	1	1
SPLENDID	-RESULTS -FRUIT	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>
OCCURRENCES	2	2	2	2	2	2
STUPENDOUS	-DEGRADATION	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>
OCCURRENCES	1	1	1	1	1	1
SUPERNATURAL	-	-What is supernatural or miraculous (citing Butler)	<i>Same as 2nd ed.</i>	<i>Same as 2nd ed.</i> + -The supernatural (bibliography: part of the content of Guizot's work)	<i>Same as 2nd ed.</i>	<i>Same as 2nd ed.</i>
OCCURRENCES	0	1	1	2	1	1
SWEET	-PEAS -JUICE (3 times) -EXCRETION	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> – -JUICE	<i>Same as 5th ed.</i>
OCCURRENCES	5	5	5	5	4	4
WONDERFUL	-DIFFERENCE in beaks -DEVELOPMENT -SKILL of gardeners -FACT/S (6 times) -STRUCTURE (the eye) -POWER of scent	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> + -Differing MANNER (offspring of two sexes) -The most wonderful of all CASES (alternate	<i>Same as 4th ed.</i> – -The most wonderful of all CASES (alternate generations of animals) +	<i>Same as 5th ed.</i> – -STRUCTURE (the eye) -METAMORPHOSES in function +

	-METAMORPHOSES in function -INSTINCT/S (7 times) -Not very wonderful INSTINCTS (by the Melipona) -Not very wonderful modifications of INSTINCTS -Hardly more wonderful INSTINCTS (bird's nesting) -SORT of shield (worker ants) -COLLECTION of fossil bones -RELATIONSHIP (between the dead and the living) -NUMBER of peculiar land-shells -Endless FORMS			generations of animals)	-DIFFERENCE (between worker ants and perfect females) -THICKNESS (sedimentary strata) -CHANGES of structure -LAW of the long endurance of allied forms -FACT	-ORGAN (the eye) -POWERS of the human eye -CHANGES in function -One of the most wonderful ANIMALS in the world (Greenland whale) -MANNER (changing natural species) -CO-ADAPTATIONS -CONNECTING LINK (Typotherium) -CASE/S (2 times) -MANNER in which certain butterflies imitate other species
OCCURRENCES	27	27	27	29	33	41
WONDERFULLY	-LITTLE practice (Mozart at three years old) -PERFECT structure (hive-bee's) -DIFFERED in shape (the working ants' jaws) -SUDDEN (extermination of whole groups of beings) -DEPARTING (degraded flowers, from the proper type of the order) -DIVERSE forms (Crustacea) -COMPLEX jaws and legs <u>in</u> crustaceans	<i>Same as 1st ed.</i>	<i>Same as 1st ed.</i> - DIVERSE forms (Crustacea)	<i>Same as 1st ed.</i> + -DISTINCT (forms of Crustacea) -COMPLEX jaws and legs <u>of</u> crustaceans (see 1 st ed.)	<i>Same as 4th ed.</i>	<i>Same as 4th ed.</i> + -ALIKE (eyes) -DIFFERING in structure (two kinds of flowers) -LITTLE pollen -CLOSE (resemblance of insects) -PERFECT (prehensile organ) -CLOSE (gradations) -CHANGED (individuals) -FINE (gradations)
OCCURRENCES	7	7	6	8	8	16
WONDROUS	-ORGANS	<i>Same as 1st ed</i>	<i>Same as 1st ed</i> + -Really wondrous and beautiful ORGANISATION	<i>Same as 3rd ed.</i>	<i>Same as 3rd ed.</i>	<i>Same as 3rd ed.</i>
OCCURRENCES	1	1	2	2	2	2