

Review of  
**PHILIP E.B. JOURDAIN, *SELECTED ESSAYS ON  
THE HISTORY OF SET THEORY AND LOGICS*  
(1906–1918)**

Edited by Ivor Grattan-Guinness  
(Instrumenta Rationis, Volume VI [1989])

Bologna, Italy: Editrice, 1991

xlii+352 pp.

JOHN C. SIMMS

Philip Edward Bertrand Jourdain was born in 1879 in Ashbourne in Derbyshire, England. He may be most familiar to us now for the Dover reprint [Cantor 1955] of his translations [Cantor 1915] of Cantor's "Beiträge" [Cantor 1895, Cantor 1897], but this constitutes a rude reduction of his life's work to a cultural triviality. His scholarly publications included writings on set theory and its history, on the history of the calculus and logic, on the foundations and history of mechanics, and on the nature of mathematics. He also contributed abstracts and reviews to a number of periodicals. He was the English editor and later the general editor of the journal *The Monist*. He produced editions of classic papers in analysis and mechanics for the German book series *Ostwalds Klassiker der exakten Wissenschaften*. For the Open Court publishing company, he worked on the journal *Open Court* and on a series of books of works and translations in the history of science and commissioned papers and books. He even published poetry.

Jourdain died in 1919 at the age of 39. His accomplishments are all the more admirable and poignant when one discovers he suffered throughout his life from Friedreich's ataxia, a degenerative disorder of the nervous system—in particular, of the spinal cord, medulla, and cerebellum—resulting in muscular incoördination and involuntary twitching.

This book reprints three of Jourdain's works: "The Development of the Theory of Transfinite Numbers" [Jourdain 1906, Jourdain 1909, Jourdain 1910a, Jourdain 1914], "The Development of Theories of Mathematical Logic and the Principles of Mathematics" [Jourdain 1910b, Jourdain 1912, Jourdain 1913], and *The Philosophy*

of *Mr. Bertrand Russell* [Jourdain 1918]. The first two are early and important works on the history of the foundations of mathematics and on the history of modern logic. The third is a lighthearted work directed at various issues, some of which are not addressed in the first two works, concerning modern logic, the foundations of mathematics, and the philosophy of logic and mathematics.

“THE DEVELOPMENT OF THE THEORY OF TRANSFINITE  
NUMBERS”

“The Development of the Theory of Transfinite Numbers” traces the inception of Cantor’s creation of the theory of transfinite numbers to foundational needs of the calculus. The story is similar to that told by Dauben in [Dauben 1979], but neither is by any means a subset of the other.

Jourdain begins his story with an eighteenth-century controversy concerning the problem of vibrating cords: Given the initial shape of a cord, what shape would it have at any other time? It seems there were two general solutions: an integral solution and a competing trigonometric series solution of Daniel Bernoulli. Euler pointed out that the controversy would be moot if every (piecewise continuous) function could be represented as a trigonometric series. It was Fourier’s contribution to show how this might be done. But then the question arose as to under just what conditions a function has a representation as a Fourier or, more generally, as a trigonometric series.

The rest of this story is a detailed survey of the complicated ensuing mathematical developments leading to and continuing through the inception of Cantor’s theory of transfinite numbers. These developments concern the idea of a function of a real or a complex variable; the natural categories that functions might fall into, such as discontinuous, continuous, uniformly continuous, analytic, and so on; the nature of number, especially real number, itself; the natural categories sets of real numbers might fall in, such as dense, nowhere dense, and so forth. Among the principal players, to mention some of the more prominent, are Dirichlet, Lipschitz, Cauchy, Gauß, Riemann, Weierstraß, Dedekind, Heine, Kronecker, and, of course, Cantor. There is a particularly interesting treatment of theories of irrational numbers in which Méray (who anticipated even Weierstraß), Weierstraß, Cantor, Heine, and Dedekind figure prominently. There is also a fascinating and in effect sympathetic account of Kronecker. Nowadays, Kronecker often comes off, as in [Dauben 1979], sounding like a nut, but though Jourdain is in no wise sympathetic to Kronecker’s views, he supplies

enough detail to make them, especially in light of post-Russellian developments, appear, at least for their time, reasonable, and intriguing.

One of the things that “The Development of the Theory of Transfinite Numbers” does exceptionally well is to document the perilous state of the foundations of analysis before the twentieth century, or at least before Weierstraß. In my experience, it is common for modern mathematicians to denigrate logic and foundations as inutile—‘After all,’ they’ll smirk, ‘even if our illustrious predecessors weren’t completely sure about the ultimate foundations of their subject,’ [ignorance of the ultimate foundations of their subject, it should be noted, is still the rule amongst mathematicians] ‘there was nothing wrong with their *mathematical intuition*. The proper theorems were being proved, weren’t they?’ Close attention to these papers should go a long way toward wiping those smirks off their faces. It is indeed refreshing to see documented how confused Cauchy and even Gauß could be about the conditions under which their theorems in analysis were valid [Jourdain 1991, p. [12]]; on p. 25 of [Jourdain 1991], one discovers a perfect example of how pathetic the attempts by our illustrious mathematical predecessors (Hankel, in this case) to exercise mathematical intuition in lieu of rigorous foundations could be.

Sarcasm aside, it is fascinating to witness in this work the uncertainty about foundations and the groping towards rigour of the premodern analysts and the origin of modern concepts (such as such abstract topological concepts as “dense,” “nowhere dense,” and so forth) and the choices that were made in constructing the mathematics of the modern era (*e.g.*: Kronecker or Cantor?). In this regard, Jourdain’s accounts of the philosophical issues involved (including an attractive description of Paul du Bois Reymond’s philosophy of mathematics) are especially welcome.

Something that makes this work particularly valuable is that Cantor was still alive when it was written and that Jourdain was in correspondence with him.

#### “THE DEVELOPMENT OF THEORIES OF MATHEMATICAL LOGIC AND THE PRINCIPLES OF MATHEMATICS”

“The Development of Theories of Mathematical Logic and the Principles of Mathematics” traces the history of modern logic up to Jourdain’s time. This is a work, like the previous one, magnificent in its scope and detail. It begins with a section on Leibniz, in which we learn that Leibniz’s very first work was about his idea of a *characteristica universalis*, the first clear enunciation of a plan for a theory of

mathematical logic. Here is Leibniz confidently predicting that it will take no more than five years for him to complete his project. Later he says that thoughts of his *characteristica universalis* ever have been and ever are with him. How poignant he is in his last letters, in which he regrets not having been able to complete his work. Not only are these facts deeply revealing, I think, of Leibniz's life's work—Leibniz, unlike Newton, was at heart a logician—, but Jourdain's selection and presentation of them is also characteristic of the quality of Jourdain's work.

To anyone who has read any Leibniz, his struggle with his *characteristica universalis* vividly illuminates just how difficult the struggle for a rigorous logic and for a foundation for mathematics was. The rest of "The Development of Theories of Mathematical Logic and the Principles of Mathematics" reports on the main elements of this struggle up to, but just short of, [Whitehead & Russell 1910-1-3]. The principal characters here are Boole, MacColl, Frege, Peano, and Jevons. A joyful feature of Jourdain's presentation is that it introduces both the original notation and the detailed workings of the systems of logic under consideration.

This work, like the preceding one, is filled with fascinating detail. Here's an example from Boole. Let  $\phi$  be any propositional function in  $x$ , *i.e.*, any function from truth values to truth values. Boole uses Maclaurin's formula

$$\phi(x) = \phi(0) + \phi'(0)x + \frac{1}{2}\phi''(0)x^2 + \frac{1}{3!}\phi^{(3)}(0)x^3 + \dots = \sum_{n=0}^{\infty} \frac{\phi^{(n)}(0)}{n!}x^n$$

which, when 1 is substituted for  $x$ , yields

$$\phi(1) - \phi(0) = \phi'(0) + \frac{1}{2}\phi''(0) + \frac{1}{3!}\phi^{(3)}(0) + \dots = \sum_{n=1}^{\infty} \frac{\phi^{(n)}(0)}{n!}$$

along with the logical law

$$x^2 = x$$

to derive the logical law

$$\phi(x) = \phi(0) + [\phi(1) - \phi(0)]x.$$

This cute example is characteristic of the formal computation that took place in Boole's logical calculus.

The section on MacColl is particularly interesting perhaps not so much for MacColl's elaboration of Boole's work, but for the concern that MacColl displays for intensional notions.

In the beginning was the word, *logos*, and it appears that the first person to speak it was Frege. Compared to his predecessors, Frege

was indeed a supreme blast of fresh air. It is, in fact, impossible to read “The Development of the Theory of Transfinite Numbers” and those parts of “The Development of Theories of Mathematical Logic and the Principles of Mathematics” *ante* Frege and not to feel awe in the presence of his achievement, for it may be truly said that from obscurity and inchoate confusion he brought forth clarity and order, at least in regard to what is now generally regarded as logic. Frege was the first to have clear insight into logical form and procedure; the tragedy of Frege is in too perfectly representing the mathematical practice of his time and thereby falling on Russell’s paradox.

Given Frege, the greatness of Peano lies in his work on mathematical foundations. Frege’s logical notation was clear, to some tastes even elegant, but it wasn’t well-adapted to practical needs, and it’s fun to read here how considerable a body of the basic mathematical notation in use today derives from Peano and his school; *e.g.*,  $\in$ ,  $\subset$ ,  $\cap$ ,  $\dots$

Jevons seems somewhat out of place in this illustrious company. Reported is a ludicrous argument between Jevons and Boole, initiated by Jevons and originally based on a pathetic misunderstanding of his concerning Boole’s use of the exclusive or, an argument which Boole, to his credit, and perhaps partly due to his imminent death, refused to continue. This argument had all the pathetic characteristics of the overly eager young whippersnapper, or angle trisector, yipping and yapping at the heels of his elder betters. But Jevons was certainly right in his contention that not all was perfectly clear with Boole’s system, and Jevons’s preference for the inclusive or had its virtues and has, of course, become standard. A further example along this line of the state of rigour pre-Frege is what I will here call “Murphy’s Law” [Jourdain 1991, p. [244]], [Murphy 1885, p. 13]:

If  $x$  or  $1x$  is taken to mean *all*  $x$ , then the expression  $x+x$  is obviously uninterpretable; an entire class cannot be added to itself. But if  $x$  is taken to mean any or every specimen of the class  $x$ , then the equation  $x + x = x$  asserts that if we add any substance to itself we have still the same substance. Add water to water, for instance, and we have still water. Perhaps the very simplicity of this interpretation has prevented it being seen.

Then again, perhaps not. (Well, one shouldn’t be *too* quick to sneer. These *are* serious folk, carrying on a sincere and difficult struggle with concepts that plague them.)

Like “The Development of the Theory of Transfinite Numbers,” a special attraction of “The Development of Theories of Mathematical

Logic and the Principles of Mathematics” is that various of the principals were still alive and able to comment on Jourdain’s manuscript. Jourdain was also able to benefit from Russell’s comments on his manuscript, and he had access to some sources that have since disappeared.

*The Philosophy of Mr. B\*rt\*nd R\*ss\*ll*

Unlike Murphy’s Law, *The Philosophy of Mr. B\*rt\*nd R\*ss\*ll* is intentionally funny. It began as two pieces for the *The Granta*, the Cambridge University students’ magazine, whose practice it was to replace the vowels in the names of “important” people with ‘\*’s, and comprises forty-three short chapters, each one a precious vignette on a topic in logic or the foundations of mathematics, such as “The” and “Identity.” My favorite chapter title is “Is the Mind in the Head?” In “Implication” we learn that neither Reaganomics (supply-side economics) nor the idea of crime as disease is new, and the discussion shows that the diseased should be punished. From “The Hierarchy of Jokes”:

“A joke of the first order was told to a Scotchman, who, as we would expect, was unable to see it.<sup>1</sup> The person (A) who told this joke told the story of how the joke was received to another Scotchman thereby making a joke about a joke of the first order, and thus making a joke of the second order. A remarked on this joke that no joke could penetrate the head of the Scotchman to whom the joke of the first order was told, even if it were fired into his head with a gun. The Scotchman, after severe thought, replied: “But ye couldn’t do that, ye know!” A repeated the whole story, which constituted a joke of the third order, to a third Scotchman. This last Scotchman again, after prolonged thought, replied: “He had ye there!” This whole story is a joke of the fourth order.

The remarks about politicians are not to be missed.

A special feature of *The Philosophy of Mr. B\*rt\*nd R\*ss\*ll* is its numerous specific citations of logical issues in the works [Carroll 1889, Carroll 1908, Carroll 1911a, Carroll 1911b] of Lewis Carroll. Another is Jourdain’s special connection to Russell. Jourdain attended Trinity College Cambridge with a scholarship in mathematics, and there he took the first mathematical logic course ever offered in Britain, which

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<sup>1</sup>[It may be that, like certain remarks about cheese and mothers-in-law (see below), the statement that Scotchmen cannot see jokes is a joke of the first order.—Ed.]

was taught by Bertrand Russell. This began their lifelong relationship. Jourdain and Russell discussed various items for *The Philosophy of Mr. B\*tr\*nd R\*ss\*ll* at various times, and Russell read it for his publisher.

#### JOURDAIN

What of the quality of Jourdain's scholarship? These *are* magnificent works. Even the most cursory examination of them will show that Jourdain's treatment is wide, deep, and detailed. An indication of this is how numerous, informative, and expansive the footnotes are. "The Development of the Theory of Transfinite Numbers" has only five pages that don't have any footnote text; "The Development of Theories of Mathematical Logic and the Principles of Mathematics" has none. One of my favorite pages is page [173], which has fifteen footnotes (\*, †, ‡, §, ||, ¶, \*\*, . . . , †††). Another favorite page is [152]. It has only ten lines of main text and only four footnotes, but those footnotes take up forty-five more lines, set in much smaller type, and the fourth footnote itself takes up twenty-eight of those lines—and then goes on for two more full pages. Wonderful! So, too, is the sheer number of sources that Jourdain cites and discusses.

And yet, and yet . . . Jourdain has his faults, too. It is, for example, unfortunate that we don't see Jourdain address Whitehead and Russell's *Principia Mathematica* directly. Of course, Jourdain is writing here just at the time when the *Principia* is first appearing, which in itself makes his remarks especially interesting, since the sense of logic as understood in the nineteenth century would be irrevocably lost, and though he doesn't discuss the *Principia per se*, it is clear that Jourdain was well acquainted with Russell's and Whitehead's works. Indeed, Jourdain was perhaps too much under the influence of Russell. These days logicism is pretty much discredited, but not so in those heady days, and it's too clear that Jourdain was an *active* partisan of Russell's logicism. Not infrequently Jourdain isn't clear about whether he's relating his own ideas or whether he's relaying the work of others, and when he is expositing the work of others, he not infrequently fails to point out their errors. This can make reading tough. Nor is Jourdain immune to mistakes and misunderstandings of his own. For example, here is Jourdain [Jourdain 1991, p. [152], fn. §] quoting Russell:

"A variable is [represented by] a symbol which is to have  
[or rather represent] one of a set of values, . . ."

Jourdain's bracketed "clarifications" seem more like "obscurifications."

The logical and mathematical errors give the impression that it would have been better if Jourdain had been a stronger logician and mathematician. Indeed, the history of logic, mathematics, science, or whatever, is greatly improved, I think, when it is practiced by someone who is a practitioner of both that subject and its history. It is perhaps appropriate at this point to quote Jourdain on du Bois Reymond [Jourdain 1991, p. [78]]:

For a discussion of principles he was unfitted by characteristics often possessed by men of inexact sciences and even by some mathematicians . . . . Finally, some of the mathematical errors of du Bois-Reymond himself provide a striking commentary on this ‘idealism’.

For Jourdain, read ‘logicism’.

Comments like these suggest that something of Jourdain as a person can’t fail to leak through, and it does. On the whole, he is an engaging person, but not without his faults (in addition to the “Scotch” joke above, there’s a nasty little “Irish” joke on p. [317] and subtle anti-Americanisms). An interesting prejudice is one he seems to manifest toward the history of logic and the history of mathematics themselves. On p. [78], in addition to his criticism of du Bois Reymond quoted above he says:

. . . he imagined that the logical question as to what is fundamental in our analytical conceptions is elucidated (in part, at least) by historical reflections.

On p. [106] he says:

Questions of history or psychology are irrelevant to logic and mathematics . . . .

The reasons he gives [Jourdain 1991, p. [106]] for studying the history of logic are (1) to encourage progress by suggesting new methods and points of view, (2) to prevent us from reinventing the wheel and from reëntering blind alleys, (3) to suggest possible connections among results. Had he not been in the grip of logicism, he might also have been able to add two more, an “internalist” reason and a “pragmatist” reason. Firstly, studying the history of logic or of the foundations of mathematics will remind us of what the outstanding problems of our subject were originally and what choices were made in addressing them. These choices involve deciding which problems to ignore (such as the problem of intensionality) as well as which possible solutions to adopt (classical logic or intuitionistic logic? set theory or type theory?  $\epsilon$ - $\delta$  analysis or infinitesimal analysis?). Knowledge of these choices makes

us better aware of just what the foundations of our subject are and of just how shaky our knowledge really is, and this can be helpful when we find it necessary to reexamine the foundations of our subject. Secondly, studying the history of our subject may help to show us how new, useful, creative, profound work comes about and so help to show us how to set up the psychosocial conditions that might promote such work.

#### IVOR GRATTAN-GUINNESS

And what of Ivor Grattan-Guinness's editorial contributions to this book? These consist of the selection of works to be reprinted, an introduction, a table of printing errors, an author index, and a subject index.

The selection of works to be reprinted, like the works themselves, is superb.

The introduction is informative and insightful. Grattan-Guinness provides a brief biography of Jourdain (it is, in fact, from this brief biography that the remarks above about Jourdain's life are drawn) and even a couple of well-chosen and, it seems to me, revealing photographs of Jourdain, as well as a photo of Jourdain's study (who are those people pictured on Jourdain's wall, anyway?). In view of Grattan-Guinness's indebtedness to Jourdain's widow for reminiscences of Jourdain, his remarks about Jourdain's life are of special interest.

The bulk of Grattan-Guinness's introduction is devoted to a detailed overview of Jourdain's articles that puts them in historical context. Grattan-Guinness supplies a number of well-chosen bibliographical references. These are, however, divided so as to appear at the ends of the sections to which they are most appropriate; I would have found it more convenient had they all been put in one place.

The "author" index lists those persons who are mentioned by Jourdain, but does not cite mere citations of works, and, corollarily, does not list those persons who are mentioned merely by citing their works. I found this restriction to be an inconvenience. For example, Christine Ladd-Franklin is cited once in the index, but I know that her work appears elsewhere as well, and I would like to know where without having to skim through the whole book.

I found the subject index woefully inadequate. Every time—and I mean that literally—I wanted to look a subject up, it wasn't there. A skimpy index is not unusual, but this one is, in fact, not even three full pages long, and considering the wealth of material contained in Jourdain's papers, it's not surprising that it fails to be very satisfying.

Moreover, neither index covers the introduction. Because Grattan-Guinness's introduction is valuable in its own right, I find this to be a nontrivial inconvenience.

A table of "printing errors" is welcome. Jourdain's has only eight entries, and *that* is rather amusing, for the truth is that there are literally hundreds of errors of one sort or another in this book. So Grattan-Guinness's table of printing errors is in actuality a sly editorial challenge to the readers of this book to try to find *all* the errors! To get the game started, I've reproduced Grattan-Guinness's table of errors, along with those errors that I managed to note in my own copy of the book, in an appendix that appears below just before the bibliography at the end of this review. (I'm sure I haven't found all the errors, because every time I look, I find more!)

And what editing has been applied to Jourdain's papers themselves? Each of Jourdain's three works is preceded by a title page. The two sets of papers are also preceded by the reproduction of a title page from a volume of the journal in which they appeared (curiously, the one for "The Development of the Theory of Transfinite Numbers" is for the volume preceding the one in which the first of these papers appeared, *i.e.*, for *Band 9* instead of *Band 10*). The papers have been photographically reproduced, and the pages following the introduction have been numbered consecutively in their bottom margins.

And that's the extent of the editing of the papers themselves. Unhappily, then, I find that the editing of Jourdain's papers lacks the *Gründlichkeit* that is so characteristic of the papers themselves. I think they, and the reader, deserve better, and find it difficult to regard this as much more than a first pass at a proper job of editing. I would have preferred an unrestricted index, combining both authors and subjects, a complete bibliography of all of the works that Jourdain mentions or cites, a complete list of "errors" and "corrections," and any other appropriate annotation or commentary. For example, scattered throughout the texts are a number of occurrences of untranslated Latin, Italian, German, and French for which an editor could usefully provide translations. In those days, Jourdain could probably expect his readership to be able to read Latin, German, and French, but such is certainly not the case now. I should think that if anyone could supply appropriate commentary, it would be Grattan-Guinness himself.

The quality of the reproductions is uneven. In general, *The Philosophy of Mr. B\*rr\*nd R\*ss\*ll* has reproduced well, "The Development of the Theory of Transfinite Numbers," has reproduced less well, but is still legible, while "The Development of Theories of Mathematical Logic and the Principles of Mathematics" has reproduced poorly and

is often quite tiring and trying to read. There is a general problem with the reproduction of small characters (such as appear in subscripts or superscripts). The typography of the editorial material is fine. The paper is sturdy and appears to be of high quality, as does the binding.

#### IN CONCLUSION

In conclusion, we may say of Jourdain that though he was not of the highest intellect, his scholarship was of the greatest *Gründlichkeit*, of the book itself that though some of the photographic reproduction is poor, its construction appears to be of high quality, of the editing that though it leaves something to be desired, we may be grateful to Grattan-Guinness and to the editors of INSTRUMENTA RATIONIS for making these works of Jourdain available to us. This is a rich, rewarding book that should be in every college library, and if you are the sort of person, as I am, who is interested in logic and the foundations of mathematics, and whose heart beats faster at the sight of footnotes, then this is the book for you.

#### LET THE GAME BEGIN!

#### Grattan-Guinness's "PRINTING ERRORS".

Page	Line	For	Read
43	1 up	ational	rational
93	15 down	Cantors	Cantor's
130	5 up	limitep	limited
162	17 down	lettter	letter
162	9 up	g nerality	generality
188	13 up	*	
188	6 up	†	¶
205	20 up	consetto	conchetto

**Other Errors.** Because there are so many other errors, I've divided them into five rough categories: [1] logical, mathematical, and factual errors, [2] grammatical errors, [3] spelling errors, [4] punctuation errors, and [5] typesetting errors. These categories are arranged in more-or-less decreasing order of interest. Sometimes it's not clear in just which category an error should be placed. Because of the quality of the reproduction of Jourdain's papers, it's not always possible to tell whether an error occurs in the original; for example, whether a missing period is missing in the original, or whether what appears to be a period, but should be a comma, is a period and not a comma in the original. I

have not tried to “correct” Jourdain’s eccentricities of punctuation or manner of expression—they’re part of his charm—, but I have made some attempt to keep him consistent within the confines of one work. In addition, I have not tried to determine just to whom an error should be attributed, *i.e.*, to determine whether the person responsible was the printer, Jourdain, or a person being reported on or quoted.

- (1) [1] p. VII, *l.* 6: Insert “(1906)” after “10”.
- (2) [1] p. VII, *l.* 7: Remove “1908-”.
- (3) [1] p. VII, *l.* 7: Remove “1913-”.
- (4) [2] p. VII, *l.* 5b: Change “and” to “an”.
- (5) [2] p. XIV, ¶ 2, *l.* 3: Change “letter” to “later”.
- (6) [3] p. XIV, ¶ 3, *l.* 3b: Change “Ostwald’s” to “Ostwalds”.<sup>2</sup>
- (7) [2] p. XIV, ¶ 2b, *l.* 3: Change “for” to “of”?
- (8) [4] p. XV, ¶ 2, *l.* 5: Change “monist” to “Monist”.
- (9) [2] p. XVIII, ¶ 1, *l.* 2: Change “mid 1800s” to “mid first decade of the 1800s”.
- (10) [3] p. XXVI, *l.* 1: Change “Lagrance” to “Lagrange”.
- (11) [1] p. XXXVIII, ¶ 3b, *l.* 2b: Change “in” to “with”.
- (12) [4] p. XXXIX, *ll.* 2b–1b & p. XL, *ll.* 1–3: Interchange the entry for [Jourdain 1906b] and the entry for [Hofstadter 1979].
- (13) [3] p. XL, *l.* 10: Change “1916” to “1916b”.
- (14) [1] p. XLII, *l.* 6b: Change “limitep” to “limite”[upside-down ‘d’].
- (15) [2] p. [6], ¶ 1b, *l.* 4: Change “involve” to “involved”.
- (16) [4] p. [6], ¶ 1b, *l.* 4b: Change “a “functio” to “a “functio”.
- (17) [4] p. [7], fn. 5, ¶ 1, *l.* 3: Change “pp,” to “pp.”.
- (18) [4] p. [7], fn. 5, ¶ 1, *l.* 3: Delete “)”.<sup>2</sup>
- (19) [4] p. [8], fn. 1, *l.* 2: Change “O” to “O.”.
- (20) [2] p. [10], ¶ 2, *l.* 4b: Change “where” to “were”.
- (21) [4] p. [14], ¶ 2b, *l.* 1b: Change “ $\frac{dw}{dz}$  is” to “ $\frac{dw}{dz}$  is”.
- (22) [4] p. [17], ¶ 1, *l.* 2b: Change “ $f(x)$ ” to “ $f(x)$ ”.
- (23) [4] p. [17], fn. 2, *l.* 1b: Change “„Résumé des leçons . . . .” to “, Résumé des leçons . . . .”,<sup>2</sup>
- (24) [2] p. [18], ¶ 1b, *l.* 5: Change “of” to “if”.
- (25) [“1”(2)] p. [18], ¶ 1b, *l.* 10: Change “ $x = \frac{1}{\nu} n + \frac{1}{2}$ ” to “ $x = \frac{1}{\nu} (n + \frac{1}{2})$ ”.
- (26) [1] p. [23], ¶ 1b, *l.* 1b: Change “ $f(a + 0) = f(a)$  or  $f(a + 0) = f(a)$ ” to “ $f(a + 0) = f(a)$  or  $f(a - 0) = f(a)$ ”.

<sup>2</sup>This correction is due to Mark Fuller.

- (27) [1] p. [24], ¶ 2b, *l.* 2: Change  $\lceil f(a + \delta) - f(a) \rceil$  to  $\lceil |f(a + \delta) - f(a)| \rceil$ .
- (28) [2] p. [24], ¶ 2b, *l.* 3: Change  $\lceil > a \rceil$  to  $\lceil > a \rceil$ .
- (29) [2] p. [25], ¶ 1b, *l.* 2: Change  $\lceil interval \rceil$  to  $\lceil intervals \rceil$ .
- (30) [4] p. [25], fn. 2, *l.* 2b: Change  $\lceil „content” \rceil$  to  $\lceil „content“ \rceil$ .
- (31) [1] p. [26], ¶ 1, *l.* 1b: Change  $\lceil > \frac{1}{2}\sigma \rceil$  to  $\lceil < \sigma \rceil$ .
- (32) [2] p. [26], ¶ 2b, *ll.* 3–5: Omit  $\lceil In \rceil \dots \lceil lines. \rceil$  (a repetition of Footnote 2).
- (33) [5] p. [27], ¶ 1, *l.* 3b: Note: The exponent in the denominator of the summand of the right-hand side of the equation is *s*, *i.e.*, the formula displayed is:

$$f(x) = \sum_{\nu=1}^{\infty} \frac{\varphi(\sin \nu \pi x)}{\nu^s}$$

- (34) [1] p. [27], ¶ 2, *l.* 4: Change  $\lceil (0 < h < 1) \rceil$  to  $\lceil (-\frac{1}{2} < h < \frac{1}{2}) \rceil$ .
- (35) [1] p. [27], ¶ 2, *l.* 5: Omit  $\lceil positive \rceil$ .
- (36) [1] p. [27], ¶ 2, *l.* 12: Change  $\lceil n \rceil$  to  $\lceil \nu \rceil$ .
- (37) [1] p. [27], ¶ 2, *l.* 4b: Change  $\lceil \frac{1}{\varepsilon^q} \rceil$  to  $\lceil \frac{1}{\varepsilon^q} \rceil$ .
- (38) [1] p. [28], ¶ 1, *l.* 3: Change  $\lceil \varphi \left( \sin \nu \cdot \frac{\tilde{\omega}}{\mu} \right) \rceil$  to  $\lceil \varphi \left( \sin \nu \cdot \frac{\tilde{\omega}}{\mu} \cdot \pi \right) \rceil$ .
- (39) [4] p. [28], ¶ 1, *l.* 3b: Change  $\lceil ; \rceil$  to  $\lceil : \rceil$ .
- (40) [1] p. [28], ¶ 1, *l.* 1b: Change  $\lceil r \rceil$  to  $\lceil rx\mu \rceil$ .
- (41) [3] p. [28], fn. 1, *l.* 2: Change  $\lceil of. cit. \rceil$  to  $\lceil op. cit. \rceil$ .
- (42) [3] p. [29], ¶ 3, *l.* 1b: Change  $\lceil x, s \rceil$  to  $\lceil x's \rceil$ .
- (43) [2] p. [29], ¶ 2b, *l.* 3b: Insert  $\lceil is needed \rceil$  (or some such phrase) after  $\lceil law \rceil$ .
- (44) [2] p. [33], fn. 5, *l.* 2: Change  $\lceil p. 9–18 \rceil$  to  $\lceil pp. 9–18 \rceil$ .
- (45) [4] p. [36], fn. 2, ¶ 2, *l.* 2: Change  $\lceil “ \rceil$  to  $\lceil ” \rceil$ .
- (46) [1] p. [37], ¶ 2b, *l.* 2: Label this equation (3):

$$(3) \quad P(x) = \sum_{\nu=-\infty}^{+\infty} A_{\nu} x^{\nu},$$

Cf. 49.

- (47) [1] p. [38], ¶ 1, *l.* 7: Change  $\lceil |A_0 + \delta_l| \rceil$  to  $\lceil |A_0| - |\delta_l| \rceil$ .
- (48) [2] p. [38], ¶ 1, *l.* 8: Change  $\lceil a l \rceil$  to  $\lceil an l \rceil$ .
- (49) [1] p. [38], ¶ 1, *l.* 3b: Don't label this equation (3); let it be simply

$$|A_0| \leq g,$$

Cf. 46.

- (50) [4] p. [40], fn. continued from previous p., ¶ 2, *l.* 3: Change  $\lceil f'(x) \rceil$  to  $\lceil f'(x) \rceil$ .

- (51) [4] p. [40], fn. continued from previous p., ¶ 2, *l.* 7: Change  $\lceil f'(x) \rceil$  to  $\lceil f'(x) \rceil$ .
- (52) [2] p. [42], fn. 2, *l.* 2: Change  $\lceil \text{p. 153, 156, 163} \rceil$  to  $\lceil \text{pp. 153, 156, 163} \rceil$ .
- (53) [4] p. [44], fn. continued from previous p., ¶ 1b, *l.* 5: Change  $\lceil \text{sin} \rceil$  to  $\lceil \text{sin} \rceil$ .
- (54) [1] p. [44], fn. continued from previous p., ¶ 1b, *l.* 5: Change  $\lceil \nu^x \rceil$  to  $\lceil \nu x \rceil$ .
- (55) [2] p. [49], ¶ 2, *l.* 1: Change  $\lceil \text{whose} \rceil$  to  $\lceil \text{of} \rceil$ .
- (56) [2] p. [53], fn. 1, *l.* 1b: Change  $\lceil \text{p. 486 sqq.} \rceil$  to  $\lceil \text{pp. 486 sqq.} \rceil$ .
- (57) [5] p. [54], fn. 1, ¶ 1, *l.* 4: Change  $\lceil \text{state} \rceil$  [upside-down ‘d’] to  $\lceil \text{stated} \rceil$ .
- (58) [3] p. [54], fn. 1, ¶ 1, *l.* 3b: Change  $\lceil \text{exemple} \rceil$  to  $\lceil \text{example} \rceil$ .
- (59) [3] p. [54], fn. 1, ¶ 1, *l.* 2b: Change  $\lceil \text{Weierstrass} \rceil$  to  $\lceil \text{Weierstrass} \rceil$ .
- (60) [4] p. [56], fn. 1, ¶ 1b, *l.* 5b: Change  $\lceil \text{Goldbach} \rceil$  to  $\lceil \text{Goldbach} \rceil$ .
- (61) [2] p. [56], fn. 1, ¶ 1b, *l.* 1b: Change  $\lceil \text{p. 305–308} \rceil$  to  $\lceil \text{pp. 305–308} \rceil$ .
- (62) [4] p. [58], ¶ 1, *l.* 2b: Change  $\lceil \text{“} \rceil$  to  $\lceil \text{”} \rceil$ .
- (63) [4] p. [58], ¶ 2, *l.* 5b: Change  $\lceil \text{“} \rceil$  to  $\lceil \text{”} \rceil$ .
- (64) [4] p. [61], fn. continued from previous p., *l.* 2b: Change  $\lceil \text{cf.} \rceil$  to  $\lceil \text{Cf.} \rceil$ .
- (65) [3] p. [62], ¶ 1b, *l.* 3: Change  $\lceil \text{Über} \rceil$  to  $\lceil \text{Ueber} \rceil$ .
- (66) [4] p. [62], ¶ 1b, *l.* 4: Change  $\lceil \text{“} \rceil$  to  $\lceil \text{”} \rceil$ .
- (67) [2] p. [62], fn. 1, *ll.* 2b–1b: Change  $\lceil \text{p. 267 to 269} \rceil$  to  $\lceil \text{pp. 267 to 269} \rceil$ .
- (68) [3] p. [62], fn. 2, *l.* 1: Change  $\lceil \text{Über} \rceil$  to  $\lceil \text{Ueber} \rceil$ .
- (69) [5] p. [65]: Insert a separating line between *l.* 1b of ¶ 1b and *l.* 1 of the fn. continued from the previous p.
- (70) [4] p. [71], fn. 2, *l.* 2: Change  $\lceil b', s \rceil$  to  $\lceil b's \rceil$ .
- (71) [4] p. [71], fn. 2, *l.* 2: Change  $\lceil s \rceil$  to  $\lceil s \rceil$ .
- (72) [2] p. [71], fn. 3: Change  $\lceil \text{p. 41–43} \rceil$  to  $\lceil \text{pp. 41–43} \rceil$ .
- (73) [4] p. [72], fn. 5, *l.* 2b: Change  $\lceil \text{“} \rceil$  to  $\lceil \text{”} \rceil$ .
- (74) [4] p. [73], fn. continued from previous p., *l.* 2: Change  $\lceil \text{,} \rceil$  to  $\lceil \text{“} \rceil$  or change  $\lceil \text{”} \rceil$  to  $\lceil \text{“} \rceil$ .
- (75) [5] p. [75], fn. 1, ¶ 1, *l.* 4: Change  $\lceil u \rceil$  to  $\lceil \text{“} \rceil$ .
- (76) [1] p. [75], fn. 1, ¶ 3b, *l.* 4: Change  $\lceil m \rceil$  to  $\lceil n \rceil$ .
- (77) [1] p. [75], fn. 1, ¶ 3b, *l.* 4: Change  $\lceil \text{ever rises above or sinks below } A \rceil$  to  $\lceil \text{ever rises above } B \text{ or sinks below } A \rceil$ .
- (78) [5] p. [75], fn. 1, ¶ 3b, *l.* 3b: Change  $\lceil \text{Cauchy's} \rceil$  to  $\lceil \text{Cauchy's} \rceil$ .

- (79) [4] p. [75], fn. 1, ¶ 3b, l. 3b: Change ‘Cauchy’s’) to ‘Cauchy’s’.
- (80) [2] p. [75], fn. 1, ¶ 3b, l. 2b: Change ‘bis’ to ‘to’.
- (81) [4] p. [76], ¶ 1, l. 3: Omit ‘.’.
- (82) [4] p. [81], ¶ 1b, l. 1–2: Change ‘,’ to ‘“’ (l. 1) or change ‘”’ to ‘“’ (l. 2).
- (83) [4] p. [81], fn. 3, l. 1b: Change ‘).’ to ‘.)’.
- (84) [2] p. [83], fn. 1, l. 1b: Change ‘p. 497 sqq.’ to ‘pp. 497 sqq.’.
- (85) [2] p. [84], ¶ 1b, l. 5b: Change ‘which’ to ‘of’.
- (86) [4] p. [84], fn. 4: Change ‘Bd. 2. p. 296’ to ‘Bd. 2, p. 296’.
- (87) [4] p. [85], fn. 2, ¶ 1, l. 1: Change ‘p. XI.’ to ‘p. XI’.
- (88) [4] p. [86], fn. 2, l. 1b: Change ‘p. 253) See’ to ‘p. 253). See’.
- (89) [3] p. [86], fn. 3, l. 1b: Change ‘*Continnum*’ to ‘*Continuum*’.
- (90) [4] p. [87], fn. 1, ¶ 2b, l. 1b: Change ‘ago.’ to ‘ago.”’.
- (91) [4] p. [88], fn. continued from previous p., ¶ 3, l. 2b: Change ‘,Pantachys’ to ‘,Pantachys’ or to ‘‘Pantachys’.
- (92) [4] p. [91], fn. 1, l. 1b: Change ‘“’ to ‘”’.
- (93) [4] p. [91], fn. 2, l. 1b: Change ‘“’ to ‘”’.
- (94) [2] p. [92], ¶ 1, l. 2b: Change ‘conditions’ to ‘condition’.
- (95) [2] p. [92], ¶ 1, l. 1b: Change ‘if’ to ‘of’.
- (96) [4] p. [93], fn. 1, l. 5: Change ‘A.’ to ‘A’.
- (97) [4] p. [93], fn. 1, l. 4b: Change ‘Part.’ to ‘Part’.
- (98) [4] p. [93], fn. 1, l. 1b: Change ‘Part.’ to ‘Part’.
- (99) [2] p. [93], fn. 2, l. 2: Change ‘p. 425 sqq.’ to ‘pp. 425 sqq.’.
- (100) [2] p. [94], ¶ 1, l. 2b: Change ‘element’ to ‘elements’.
- (101) [2] p. [94], ¶ 1, l. 2b: Change ‘a  $n$ -ply’ to ‘an  $n$ -ply’.
- (102) [2] p. [94], fn. 2, ¶ 1b, l. 3: Change ‘the’ to ‘there is a’.
- (103) [3] p. [95], ¶ 1, l. 5: Change ‘beetween’ to ‘between’.
- (104) [2] p. [95], ¶ 1, l. 10: Change ‘a  $(n + 1)$ th’ to ‘an  $(n + 1)$ th’.
- (105) [2] p. [95], ¶ 1, l. 10: Change ‘ $(n + 1)$ th’ to ‘ $(n + 1)$ st’.
- (106) [1] p. [95], fn. 1, l. 1b: Change ‘ $\gamma_{\nu-1}$ ’ to ‘ $\gamma_{2\nu-1}$ ’.
- (107) [1] p. [95], fn. 2, l. 2: Change ‘ $\alpha_{1,2}$ ’ to ‘ $\alpha_{2,1}$ ’.
- (108) [1] p. [95], fn. 2, l. 2: Change ‘ $\alpha_{1,n}$ ’ to ‘ $\alpha_{n,1}$ ’.
- (109) [1] p. [96], ¶ 1, l. 3b: Change ‘ $\varphi_{2\nu}$ ’ to ‘ $\eta_{2\nu}$ ’.
- (110) [1] p. [96], fn. 2, ¶ 1, l. 5: Change ‘ $y < 0$ ’ to ‘ $y < 1$ ’.
- (111) [2] p. [99], ¶ 1, l. 4b: Change ‘a  $n$ -dimensional’ to ‘an  $n$ -dimensional’.
- (112) [2] p. [99], ¶ 1, l. 2b: Change ‘of most’ to ‘at most’.
- (113) [3] p. [99], ¶ 2, l. 1: Change ‘vectores’ to ‘vectors’.
- (114) [2] p. [99], ¶ 2, l. 2: Change ‘a  $(n + 1)$ -dimensional’ to ‘an  $(n + 1)$ -dimensional’.
- (115) [4] p. [99], fn. 2: Change ‘t. 2 p. 67’ to ‘t. 2, p. 67’.

- (116) [2] p. [99], fn. 3, ¶ 1b, l. 2: Change 「enumerably」 to 「enumerable」.
- (117) [4] p. [99], fn. 3, ¶ 1b, l. 1b: Change 「*op. cit.* pp. 52–53」 to 「*op. cit.*, pp. 52–53」.
- (118) p. [104], fn. \*, l. 4b: Mr. Stott is Boole's son-in-law. *Cf.* p. [112], fn. ‡, ¶ 2, l. 2.
- (119) [5] p. [105], ¶ 1, l. 1b: There is a curious interchange throughout the text of six-pointed and smaller eight-pointed asterisks, both in the main text and in the footnotes.
- (120) [4] p. [105], fn. \*, ¶ 1, l. 1: Change 「ix ,」 to 「ix.,」.
- (121) [4] p. [105], fn. \*, ¶ 1b, l. 3: Change 「ix ,」 to 「ix.,」.
- (122) [2] p. [107], fn. \*, ¶ 1, l. 1b: Change 「Halle, a., S.」 to 「Halle a. d. S.」.
- (123) [4] p. [108], fn. †, l. 1: Change 「iii ,」 to 「iii.,」.
- (124) [5] p. [108], fn. †, l. 1: Change 「iii」 to 「iii.」.
- (125) [5] p. [108], fn. ‡, ¶ 1, l. 1: Change 「“pasigraphy”」 to 「“pasigraphy”」.
- (126) [4] p. [108], fn. ‡, ¶ 1b, l. 2: Change 「1894.」 to 「1894」.
- (127) [4] p. [108], fn. ‡, ¶ 1b, l. 3: Change 「2 Aufl.」 to 「2. Aufl.」.
- (128) [3] p. [108], fn. ‡, ¶ 1b, l. 1b: Change 「N. 4」 to 「No. 4」.
- (129) [4] p. [110], fn. ‡, ¶ 2, l. 3b: Change 「cf.」 to 「Cf.」.
- (130) [4] p. [110], fn. ‡, ¶ 2, l. 3b: Change 「)」 to 「.)」.
- (131) [3] p. [110], fn. ‡, ¶ 2, l. 1b: Change 「N. 3」 to 「No. 3」.
- (132) [4] p. [110], fn. ‡, ¶ 3, l. 2b: Change 「xxx ,」 to 「xxx.,」.
- (133) [4] p. [110], fn. ‡, ¶ 2b, l. 1: Change 「pp 13, 17–18,」 to 「pp. 13, 17–18,」.
- (134) [4] p. [110], fn. ‡, ¶ 2b, l. 2: Change 「40–45.」 to 「40–45,」.
- (135) [4] p. [110], fn. ‡, ¶ 1b, l. 2: Change 「*op cit.*」 to 「*op. cit.*」.
- (136) [4] p. [110], fn. ‡, ¶ 5, l. 2: Change 「2 Aufl.」 to 「2. Aufl.」.
- (137) [4] p. [112], fn. \*, ¶ 1, l. 1: Change 「, ,」 to 「,」.
- (138) [4] p. [112], fn. †, ¶ 1, l. 1: Change 「xxxviii ,」 to 「xxxviii.,」.
- (139) [4] p. [112], fn. †, ¶ 1b, l. 1: Change 「*op. cit.* ,」 to 「*op. cit.*,」.
- (140) [4] p. [112], fn. ‡, ¶ 1, l. 1b: Change 「pp 141–181」 to 「pp. 141–181」.
- (141) [2] p. [112], fn. ‡, ¶ 1b, l. 2b: Change 「himself」 to 「Harley himself」 (or was Boole in the habit of writing letters to himself?).
- (142) [4] p. [113], fn. continued from previous p., ¶ 1, l. 1b: Change 「p 172」 to 「p. 172」.
- (143) [4] p. [113], fn. continued from previous p., ¶ 1b: Change 「*math., Wiss.*」 to 「*math. Wiss.*」.
- (144) [4] p. [113], fn. \*, ¶ 1, l. 1: Change 「Boole s」 to 「Boole's」.

- (145) [4] p. [113], fn. \*, ¶ 1, l. 1: Change 「Analysis」 to 「Analysis」.
- (146) [4] p. [113], fn. \*, ¶ 2, l. 1: Change 「iv ,」 to 「iv.,」.
- (147) [4] p. [113], fn. \*, ¶ 2b, l. 2: Change 「*Rep* ,」 to 「*Rep.*,」.
- (148) [4] p. [113], fn. \*, ¶ 1b, l. 2: Change 「*Soc* ,」 to 「*Soc.*,」.
- (149) [4] p. [113], fn. \*, ¶ 1b, l. 2: Change 「N.S ,」 to 「N.S.,」.
- (150) [4] p. [113], fn. \*, ¶ 1b, l. 2: Change 「ii ,」 to 「ii.,」.
- (151) [4] p. [113], fn. †, ¶ 1b, l. 3b: Change 「operations.」 to 「operations,」.
- (152) [1] p. [114], ¶ 1b, l. 2: Change 「that」 to 「“that」.
- (153) [1] p. [114], ¶ 1b, l. 5: Change 「;」 to 「.」.
- (154) [1] p. [114], ¶ 1b, l. 5: Change 「every」 to 「Every」.
- (155) [1] p. [114], ¶ 1b, l. 6: Change 「admissible.」 to 「admissible...」.
- (156) [5] p. [114], fn. §: Change 「*Inducti*」 to 「*Inductive*」.
- (157) [4] p. [115], fn. \*\*, ¶ 2b, l. 1b: Change 「August. 1851」 to 「August, 1851」.
- (158) [2] p. [116], fn. continued from previous p., ¶ 1b, l. 3: Change 「giving」 to 「given」.
- (159) [2] p. [116], fn. continued from previous p., ¶ 1b, l. 7b: Change 「equations」 to 「equation」.
- (160) [5] p. [116], fn. continued from previous p., ¶ 1b, l. 6b: Change 「suppose」 to 「suppose」.
- (161) [4] p. [117], fn. \*\*, ¶ 2, l. 2b: Change 「*X*'s,」 to 「*X*'s,」.
- (162) [1] p. [117], fn. \*\*, ¶ 2, l. 2b: Change 「*O*-proposition」 to 「*E*-proposition」.
- (163) [1] p. [117], fn. \*\*, ¶ 2, l. 1b: Change 「*E*-proposition」 to 「*O*-proposition」.
- (164) [1] p. [118], fn. \*, ¶ 2b, l. 2b: Change 「is 0」 to 「is not 0」.
- (165) [1] p. [119], ¶ 2, l. 5: Change 「the equation」 to 「the first equation」.
- (166) [1] p. [119], ¶ 2, l. 6: Change 「by *z* and *x*, respectively,」 to 「by *z* and *x* successively」.
- (167) [4] p. [126], fn. \*, ¶ 1, l. 5: Change 「.」 to 「,」.
- (168) [3] p. [126], fn. \*, ¶ 2, l. 2b: Change 「*Boole*」 to 「*Boole*」.
- (169) [2] p. [126], fn. \*, ¶ 1b, l. 9b: Change 「to which」 to 「to which he had been led by」.
- (170) [4] p. [128], fn. \*, ¶ 1, l. 1b: Change 「ed of」 to 「ed. of」.
- (171) [4] p. [128], fn. \*, ¶ 2, l. 3: Change 「N.S. ii.」 to 「N.S., ii.」.
- (172) [3] p. [130], ¶ 1, l. 3b: Change 「upsn」 to 「upon」.
- (173) [4] p. [130], fn. \*\*: Change 「p 169」 to 「p. 169」.
- (174) [4] p. [131], fn. §: Change 「ed ,」 to 「ed.,」.

- (175) [3] p. [134], fn. continued from previous p., ¶ 1b, *l.* 2b: Change «uber» to «über».
- (176) [4] p. [134], fn. \*, *l.* 3b: Change «v.» to «v.,».
- (177) [2] p. [135], fn. †, ¶ 2, *l.* 5: Change «p. 53–54» to «pp. 53–54».
- (178) [3] p. [135], fn. †, ¶ 1b, *l.* 2b: Change «Russell» to «Russell».
- (179) [4] p. [135], fn. §, ¶ 1, *l.* 6: Change «Mind.» to «Mind».
- (180) [4] p. [136], fn. continued from previous p., *l.* 1: Change «Mind.» to «Mind».
- (181) [4] p. [136], fn. continued from previous p., *l.* 4: Change «Soc.» to «Soc.,».
- (182) [4] p. [137], fn. †, ¶ 2b, *l.* 2b: Change «10–11.» to «10–11,».
- (183) [3] p. [138], ¶ 1, *l.* 9: Change «ihough» to «although».
- (184) [2] p. [138], fn. \*: Change «myself» to «me».
- (185) [4] p. [138], fn. †, ¶ 1, *l.* 2: Change «v.» to «v.,».
- (186) [4] p. [139], fn. \*: Change «ix.» to «ix.,».
- (187) [4] p. [140], fn. \*: Change «N.S.» to «N.S.,».
- (188) [4] p. [141], ¶ 2, *l.* 1b: Omit «».
- (189) [4] p. [143], ¶ 2, *l.* 4: Change «doimply» to «do imply».
- (190) [4] p. [143], fn. ||: Change «de.» to «de».
- (191) [4] p. [143], fn. ¶, *l.* 1: Change «)» to «)».
- (192) [4] p. [144], fn. \*, *l.* 2: Change «Mind.» to «Mind».
- (193) [1] p. [146], ¶ 2, *l.* 10b: Omit «'».
- (194) [2] p. [149], ¶ 2, *l.* 1b: Change «\*» to «‡».
- (195) [2] p. [149], ¶ 1b, *l.* 6b: Change «†» to «§».
- (196) [2] p. [149], fn. text, *l.* 3b: Change «\*» to «‡».
- (197) [2] p. [149], fn. text, *l.* 2b: Change «†» to «§».
- (198) [3] p. [151], *l.* 3: Change «Uber» to «Über».
- (199) [3] p. [151], *l.* 7: Change «Grundgesetz» to «Grundgesetze».
- (200) [4] p. [151], fn. \*, ¶ 1b, *l.* 1b: Change «F. 1910» to «F., 1910».
- (201) [2] p. [151], fn. †, *l.* 2: Change «a. S.» to «a. d. S.».
- (202) p. [152], fn. \*, ¶ 1, *ll.* 5b–1b: “The reproduction of the arithmetical language of formulas, which I have indicated in the title, refers more to the fundamental ideas than to the particular form of notation. Those attempts to fashion a similarity by conceiving of a concept as the sum of its characteristic attributes have been of no importance to me at all.” Strange, perhaps, that Frege didn’t comment on this point, since he commented on other footnotes of the manuscript (*e.g.*, fn. § immediately below).
- (203) [2] p. [153], fn. continued from previous p., ¶ 1, *l.* 3: Change «is, besides,» to «is, is, besides,».

- (204) [2] p. [153], fn. continued from previous p., ¶ 1, *l.* 17b: Change “will always as” to “will always appear as”.
- (205) [2] p. [153], fn. continued from previous p., ¶ 1, *l.* 7b: Change “as *meaning*” to “as the *meaning*”.
- (206) [2] p. [153], fn. continued from previous p., ¶ 1, *l.* 3b: Change “signs” to “signs that”.
- (207) [4] p. [155], fn. \*: Change “ix,” to “ix.,”.
- (208) [4] p. [156], fn. §, ¶ 1, *l.* 6: Change “thought,” to “thought.”.
- (209) [4] p. [157], fn. \*, *l.* 1b: Change “*Fu.B.*” to “*F.u.B.*”.
- (210) [3] p. [158], ¶ 1, *l.* 1b: Change “significance” to “significance”.
- (211) [5] p. [159], ¶ 2b, *l.* 2b: Change “|\_” to “|—”.
- (212) [4] p. [160], fn. text, ¶ 1: Change “*Fu.B.*” to “*F.u.B.*”.
- (213) [2] p. [160], fn. text, ¶ 2b, *l.* 1: Change “\*” to “||”.
- (214) [4] p. [160], fn. text, ¶ 2b, *l.* 1: Change “*FuB.*” to “*F.u.B.*”.
- (215) [4] p. [160], fn. text, ¶ 2b, *l.* 1: Change “*and*” to “and”.
- (216) [5] p. [161], fn. \*, ¶ 1, *l.* 3: Change “fu nction” to “function”.
- (217) [2] p. [161], fn. †, *l.* 2: Change “propositions” to “proposition”.
- (218) [4] p. [161], fn. \*\*, *l.* 2: Change “*Fu.B.*” to “*F.u.B.*”.
- (219) [5] p. [162], ¶ 1, *l.* 6b: Change “\_the” to “the”.
- (220) [5] p. [162], fn. †, *l.* 2: Change “|” to “—”.
- (221) [4] p. [162], fn. †, *l.* 1b: Change “)” to “).”.
- (222) [3] p. [162], fn. †, *l.* 1: Change “apeak” to “speak”.
- (223) [4] p. [162], fn. §, *l.* 1b: Change “‘a” to “‘a”.
- (224) [2] p. [163], fn. \*, *l.* 2: Change “denotes” to “it denotes”.
- (225) [4] p. [163], fn. ||: Change “*BP.*” to “*B.P.*”.
- (226) [1] p. [163], fn. \*\*, *ll.* 3–5: Change

$$\begin{aligned}
 a\bar{b}\bar{a} = 0, & \quad (c\bar{b}\bar{a})(\overline{c\bar{b}.c\bar{a}}) = 0, \\
 (d\bar{b}\bar{a})(\overline{b\bar{d}\bar{a}}) = 0, & \quad (b\bar{a})(\overline{\bar{a}\bar{b}}) = 0, \quad \bar{a}\bar{a} = 0, \quad a\bar{\bar{a}} = 0, \\
 (c \equiv d)\overline{f(c)f(d)} = 0, & \quad c \equiv c.
 \end{aligned}$$

to

$$\begin{aligned}
 a\bar{\bar{b}}\bar{\bar{a}} = 0, & \quad (\overline{c\bar{b}\bar{a}})(\overline{\overline{c\bar{b}.c\bar{a}}}) = 0, \\
 (\overline{d\bar{b}\bar{a}})(\overline{\overline{b\bar{d}\bar{a}}}) = 0, & \quad (\overline{b\bar{a}})(\overline{\overline{\bar{a}\bar{b}}}) = 0, \quad \bar{\bar{a}}\bar{\bar{a}} = 0, \quad a\bar{\bar{\bar{a}}} = 0, \\
 (\overline{c \equiv d})\overline{\overline{f(c)f(d)}} = 0, & \quad c \equiv c.
 \end{aligned}$$

- (227) [3] p. [165], fn. †, ¶ 1b, *l.* 8b: Change “Arithmetci” to “Arithmetic”.

- (228) [1] p. [166], ¶ 1b, *l.* 6: Change ‘ $a$  implies  $b$ ’ to ‘ $c$  implies  $b$ ’.
- (229) [4] p. [166], fn. §, *l.* 1b: Omit ‘)’.
- (230) [2] p. [167], ¶ 2, *l.* 3: Change ‘Verfasser’ to ‘der Verfasser’.
- (231) [3] p. [167], ¶ 1b, *l.* 2: Change ‘fnction’ to ‘function’.
- (232) [5] p. [169], fn. §, *l.* 1b: Change ‘6. Juli’ to ‘6. Juli’.
- (233) [3] p. [170], fn. ‡, *l.* 2: Change ‘*Malh.*’ to ‘*Math.*’.
- (234) [4] p. [172], fn. \*, *l.* 2: Change ‘pp., 44–51’ to ‘pp. 44–51’.
- (235) [5] p. [173], fn. †††, ¶ 1, *l.* 1: Change ‘I04’ to ‘104’.
- (236) [3] p. [174], fn. ¶, *l.* 2: Change ‘Ferienplanderei’ to ‘Ferienplauderei’.
- (237) [5] p. [178], fn. §: Change ‘denoting’ to ‘denoting’.
- (238) [4] p. [178], fn. ||, ¶ 2, *l.* 1b: Change ‘510.’ to ‘510.’.
- (239) [3] p. [179], fn. \*, *l.* 2: Change ‘defixed’ to ‘defined’.
- (240) [4] p. [179], fn. †, *l.* 1: Change ‘i. p. 9’ to ‘i., p. 9’.
- (241) [1] p. [180], fn. continued from previous p., ¶ 1b, *l.* 7b: Change ‘ $\sqrt{\{\phi(\zeta)\}}$ ’ to ‘ $\sqrt{\{\phi(1)\}}$ ’.
- (242) [4] p. [181], fn. \*, ¶ 1, *l.* 1: Change ‘ $G$ ’ to ‘ $G$ ’.
- (243) [3] p. [183], ¶ 1, *l.* 2: Change ‘diesser’ to ‘dieser’.
- (244) [4] p. [184], fn. †, *l.* 2: Change ‘pages’ to ‘pages’.
- (245) [2] p. [184], fn. ¶: Change ‘in’ to ‘to’.
- (246) [5] p. [185], ¶ 2b, *l.* 7b: Change ‘variables—,it’ to ‘variables—, it’.
- (247) [3] p. [188], ¶ 1, *l.* 5: Change ‘difference’ to ‘difference’.
- (248) [5] p. [188], fn. text, ¶ 2, *l.* 2b: Note that in the footnotes, ‘ $\varepsilon$ ’ is exclusively used in place of ‘ $\epsilon$ ’.
- (249) [3] p. [188], fn. text, ¶ 7b, *l.* 1: Change ‘N. 3’ to ‘No. 3’.
- (250) [2] p. [189], fn. ‡, ¶ 1b: *N.* is the *Notations ...* of p. [209], fn. \*\*, ¶ 1.
- (251) [1] p. [190], ¶ 1, *l.* 1: Change ‘is deduced from’ to ‘is a proposition from which is deduced’ or ‘implies’.
- (252) [4] p. [190], fn. ||, *l.* 8: Change ‘*Formulaires*’ to ‘*Formulaires*’.
- (253) [1] p. [191], ¶ 1b, *l.* 1: Change ‘ $\Gamma. \supset ;,$ ’ to ‘ $\Gamma. \supset .:$ ’.
- (254) [5] p. [191]: Insert a separating line between *l.* 1b of ¶ 1b and *l.* 1 of fn. \*.
- (255) [1] p. [192], ¶ 1, *l.* 6: Change ‘ $\Gamma. \supset .:$ ’ to ‘ $\Gamma. \supset .:$ ’.
- (256) [4] p. [192], ¶ 2b, *l.* 2b: Change ‘viz.,’ to ‘viz.,’.
- (257) [1] p. [192], ¶ 2b, *l.* 1b: Change ‘ $x\exists$ ’ to ‘ $[x\epsilon]$ ’.
- (258) [4] p. [193], fn. \*, *l.* 1: Change ‘xii:’ to ‘xii.:’.
- (259) [4] p. [194], ¶ 1, *l.* 3: Change ‘†’ to ‘\*’.
- (260) [4] p. [194], ¶ 2, *l.* 9: Change ‘‡’ to ‘†’.

- (261) [1] p. [194], ¶ 2, *l.* 4b: Change  $\lceil \phi[\phi]y = y \rceil$  to  $\lceil \phi[\phi]y := : [x\epsilon] . x = y \rceil$ . Note that  $\{y\}$  is not being distinguished from  $y$ .  
*Cf.* p. [194], fn. text, ¶ 1b.
- (262) [4] p. [194], fn. text, ¶ 1, *l.* 1: Change  $\lceil \dagger \rceil$  to  $\lceil * \rceil$ .
- (263) [1] p. [194], fn. text, ¶ 1, *l.* 3b: Change  $\lceil a! \rceil$  to  $\lceil \log \rceil$ .
- (264) [1] p. [194], fn. text, ¶ 1, *l.* 2b: Change  $\lceil \log a \rceil$  to  $\lceil ! \rceil$ .
- (265) [4] p. [194], fn. text, ¶ 1, *l.* 2b: Change  $\lceil \textit{Formulaires} \rceil$  to  $\lceil \textit{Formulaires} \rceil$ .
- (266) [4] p. [194], fn. text, ¶ 2, *l.* 1: Change  $\lceil \ddagger \rceil$  to  $\lceil \dagger \rceil$ .
- (267) [4] p. [195], ¶ 1, *l.* 1b: Change  $\lceil \rceil^*$  to  $\lceil \rceil . * \rceil$ .
- (268) [1] p. [195], fn. \*, *l.* 2: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (269) [5] p. [195], fn. \*, *l.* 4: Change “ $\lceil . \supset . : . \rceil$ ” to “ $\lceil . \supset . : . \rceil$ ”.
- (270) [1] p. [195], fn. \*, *l.* 5: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (271) [1] p. [196], ¶ 1b, *l.* 5: Change  $\lceil x(p/q), x(p'/q') \in N \rceil$  to  $\lceil x(p/q), x(p'/q') \in N \rceil$ .
- (272) [1,5] p. [196], ¶ 1b, *l.* 6: Change  
 $\lceil R = : : [x\epsilon] . : p, q \in N . (p/q) = x : - = \Lambda \rceil$  to  
 $\lceil R = : : [x\epsilon] : : [(p, q)\epsilon] : p, q \in N . (p/q) = x : . - = \Lambda \rceil$ .
- (273) [1] p. [197], ¶ 1, *l.* 5: For the meaning of  $\lceil KR \rceil$ , *cf.* p. [201], fn. §, ¶ 1.
- (274) [1] p. [197], ¶ 1, *l.* 6: Change  $\lceil \epsilon > x \rceil$  to  $\lceil \epsilon > x \rceil$ .
- (275) [1] p. [197], ¶ 1, *l.* 10: Change  $\lceil > \rceil$  to  $\lceil < \rceil$ .
- (276) [1] p. [197], ¶ 1, *l.* 9b: Change  $\lceil a \in KR . a - = \Lambda : R \epsilon > Ta . - = \Lambda : Ta = x : . \rceil$  to  $\lceil [a\epsilon] . : a \in KR . a - = \Lambda : R \epsilon > Ta . - = \Lambda : Ta = x : . \rceil$ .
- (277) [1] p. [197], ¶ 1, *l.* 6b: Change  $\lceil > \rceil$  to  $\lceil < \rceil$ .
- (278) [1] p. [197], ¶ 1, *l.* 1b: Change  $\lceil k \rceil$  to  $\lceil R \rceil$ .
- (279) [5] p. [197], ¶ 1, *l.* 1b: Change  $\lceil \} \rceil$  to  $\lceil \} \rceil$ .
- (280) [3] p. [197], fn. †, *l.* 1b: Change  $\lceil N \rceil$  to  $\lceil \text{No} \rceil$ .
- (281) [4] p. [198], ¶ 3b, *l.* 1: Change  $\lceil \textit{viz} , \rceil$  to  $\lceil \textit{viz} . , \rceil$ .
- (282) [2] p. [198], ¶ 1b, *l.* 1b: Change  $\lceil \textit{all entities cannot} \rceil$  to  $\lceil \textit{not all entities can} \rceil$ .
- (283) [2] p. [198], fn. \*: Change  $\lceil \textit{article} \rceil$  to  $\lceil \textit{articles} \rceil$ .
- (284) [2] p. [198], fn. §:  $\lceil \textit{Ibid} . , \rceil$ : The page(s) is (are) missing.
- (285) [1] p. [199], ¶ 1b, *l.* 4: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (286) [1] p. [199], ¶ 1b, *l.* 3b: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (287) [4] p. [199], fn. †, *l.* 1b: Change  $\lceil 203 \rceil$  to  $\lceil 203 \rceil$ .
- (288) [4] p. [199], fn. ¶, *l.* 1: Change  $\lceil \textit{Ibid} , \rceil$  to  $\lceil \textit{Ibid} . , \rceil$ .
- (289) [4] p. [199], fn. ¶, *l.* 3: Change  $\lceil \textit{Formulaires} \rceil$  to  $\lceil \textit{Formulaires} \rceil$ .
- (290) [1] p. [199], fn. ¶, *l.* 2b: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (291) [1] p. [200], ¶ 2, *l.* 3b: Change  $\lceil m/m \rceil$  to  $\lceil m \setminus m \rceil$ .
- (292) [1] p. [200], ¶ 2, *l.* 2b: Change  $\lceil q/q \rceil$  to  $\lceil q \setminus q \rceil$ .

- (293) [1] p. [200], ¶ 2, l. 1b: Change  $\lceil q/q \rceil$  to  $\lceil q \setminus q \rceil$ .
- (294) [1] p. [200], ¶ 2b, l. 1: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (295) [1] p. [200], ¶ 2b, l. 2: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (296) [1] p. [200], ¶ 1b, l. 1b: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (297) [3] p. [200], fn. ‡, ¶ 1b, l. 1: Change  $\lceil N. \rceil$  to  $\lceil \text{No.} \rceil$ .
- (298) [4] p. [200], fn. ‡, ¶ 1b, l. 2b: Change  $\lceil \rceil \rceil$  to  $\lceil \rceil \rceil$ .
- (299) [1] p. [200], fn. ||, l. 2: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (300) [5] p. [201], ¶ 1, l. 6: Change  $\lceil x^\epsilon \rceil$  to  $\lceil x\epsilon \rceil$ .
- (301) [1,5] p. [201], ¶ 1, l. 6b: Change  $\lceil x^\epsilon \rceil$  to  $\lceil \overline{x\epsilon} \rceil$ .
- (302) [5] p. [201], fn. §, ¶ 1b, l. 1b: Change “ $\lceil \cap \rceil$ ” to “ $\lceil \cap \rceil$ .”
- (303) [5] p. [202], fn. \*, ¶ 3, l. 5: Change  $\lceil 5\epsilon \rceil$  to  $\lceil 5 \epsilon \rceil$ .
- (304) [5] p. [202], fn. \*, ¶ 3, l. 6b: Change  $\lceil 5\epsilon \rceil$  to  $\lceil 5 \epsilon \rceil$ .
- (305) [5] p. [202], fn. \*, ¶ 3, l. 5b: Change  $\lceil 5\epsilon \rceil$  to  $\lceil 5 \epsilon \rceil$ .
- (306) [4] p. [202], fn. \*, ¶ 2b, l. 4: Change  $\lceil 1 \rceil$  to  $\lceil 1 \rceil$ .
- (307) [4] p. [202], fn. \*, ¶ 2b, l. 5b: Change  $\lceil \rceil \rceil$  to  $\lceil \rceil \rceil$ .
- (308) [4] p. [205], fn. \*, l. 1b: Change  $\lceil \text{vii ;} \rceil$  to  $\lceil \text{vii. ;} \rceil$ .
- (309) [3] p. [205], fn. \*, l. 1b: Change  $\lceil N. \rceil$  to  $\lceil \text{No.} \rceil$ .
- (310) [5] p. [205], fn. †, l. 1b: Change  $\lceil \text{brackets} \rceil$  to  $\lceil \text{brackets} \rceil$ .
- (311) [1] p. [206], ¶ 1, l. 1b: Change  $\lceil k \rceil$  to  $\lceil K \rceil$ .
- (312) [1] p. [206], ¶ 1b, l. 2: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (313) [2] p. [206], fn. \*, l. 1: Change  $\lceil \text{by } a \setminus b \rceil$  to  $\lceil \text{by an } a \setminus b \rceil$ .
- (314) [2] p. [206], fn. \*, l. 2: Change  $\lceil ab \rceil$  to  $\lceil a b \rceil$ .
- (315) p. [206], fn. \*, l. 2b: Note that ‘ $\varphi =_x \psi$ ’ means “ $\neg \forall x, \varphi = \psi$ .”
- (316) [4] p. [206], fn. \*, l. 1b: Change  $\lceil \text{‘This} \rceil$  to  $\lceil \text{‘‘This} \rceil$ .
- (317) [4] p. [206], fn. ||, l. 1: Change  $\lceil \text{t. vi. p. 61} \rceil$  to  $\lceil \text{t. vi., p. 61} \rceil$ .
- (318) [1] p. [206], fn. ||, l. 5: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (319) [4] p. [206], fn. ||, l. 6: Change  $\lceil x, y \in a. \rceil$  to  $\lceil . x, y \in a. \rceil$ .
- (320) [1] p. [207], ¶ 1, l. 4: Change “ $\lceil . \supset : \rceil$ ” to “ $\lceil . \supset : : \rceil$ .”
- (321) [1] p. [207], ¶ 1, l. 4: Change  $\lceil b/a \rceil$  to  $\lceil b \setminus a \rceil$ .
- (322) [3] p. [209], fn. ¶, ¶ 1b, l. 2: Change  $\lceil N. \rceil$  to  $\lceil \text{No.} \rceil$ .
- (323) [3] p. [209], fn. ¶, ¶ 1b, l. 3: Change  $\lceil N. \rceil$  to  $\lceil \text{No.} \rceil$ .
- (324) [3] p. [209], fn. \*\*, ¶ 1, l. 1b: Change  $\lceil \text{pnblié} \rceil$  to  $\lceil \text{publié} \rceil$ .
- (325) [4] p. [209], fn. \*\*, ¶ 2, l. 8: Change  $\lceil \text{(another} \rceil$  to  $\lceil \text{another} \rceil$ .
- (326) [3] p. [209], fn. \*\*, ¶ 2, l. 6b: Change  $\lceil N. \rceil$  to  $\lceil \text{No.} \rceil$ .
- (327) [5] p. [209], fn. \*\*, ¶ 2, l. 5b: Change  $\lceil \text{‘Préface} \rceil$  to  $\lceil \text{‘‘Préface} \rceil$ .
- (328) [4] p. [210], fn. continued from previous p., l. 2: Change  $\lceil \text{internazionale} \rceil$  to  $\lceil \text{internazionale,} \rceil$ .
- (329) [3] p. [210], fn. continued from previous p., l. 4: Change  $\lceil N. \rceil$  to  $\lceil \text{No.} \rceil$ .
- (330) [1] p. [211], fn. §: Change  $\lceil 4 \rceil$  to  $\lceil b \rceil$ .
- (331) [1] p. [212], ¶ 1, l. 7: Change  $\lceil q \rceil$  to  $\lceil Q \rceil$ .
- (332) [1] p. [212], ¶ 2, l. 7: Change “ $\lceil . \supset 7^2 = 0 \rceil$ ” to “ $\lceil . \supset . 7^2 = 0 \rceil$ .”

- (333) [1] p. [212], ¶ 2, l. 3b: Change “ $\lceil \cdot \supset \cdot \rceil$ ” to “ $\lceil \cdot \supset \cdot \rceil$ .”
- (334) [3] p. [212], fn. †, l. 3b: Change  $\lceil \text{Übersetzung} \rceil$  to  $\lceil \text{Übersetzung} \rceil$ .
- (335) [3] p. [212], fn. †, l. 2b: Change  $\lceil \text{p. 336–352} \rceil$  to  $\lceil \text{pp. 336–352} \rceil$ .
- (336) [1] p. [214], ¶ 2, l. 8b: Change  $\lceil \bar{\epsilon}\alpha \rceil$  to  $\lceil \bar{x}\epsilon\alpha \rceil$ .
- (337) [1] p. [215], ¶ 3, l. 2b: Change  $\lceil \alpha \rceil$  to  $\lceil a \rceil$ .
- (338) [4] p. [215], fn. ||, ¶ 1, l. 5b: Change  $\lceil \text{vi} \cdot \rceil$  to  $\lceil \text{vi} \cdot \rceil$ .
- (339) [5] p. [216], ¶ 1, l. 1b: Change  $\lceil \cdot * \rceil$  to  $\lceil \cdot * \rceil$ .
- (340) [3] p. [216], fn. continued from previous p., ¶ 1, l. 2: Change  $\lceil \text{N} \cdot \rceil$  to  $\lceil \text{No} \cdot \rceil$ .
- (341) [4] p. [216], fn. continued from previous p., ¶ 3b, l. 1: Change  $\lceil F \cdot \text{ii} \cdot \rceil$  to  $\lceil F \cdot \text{ii} \cdot \rceil$ .
- (342) [3] p. [216], fn. continued from previous p., ¶ 2b, l. 1: Change  $\lceil \text{N} \cdot \rceil$  to  $\lceil \text{No} \cdot \rceil$ .
- (343) [5] p. [216], fn. continued from previous p., ¶ 1b, l. 7: Change  $\lceil e \rceil$  to  $\lceil e \rceil$ .
- (344) [4] p. [216], fn. continued from previous p., ¶ 1b, l. 1b: Change  $\lceil \cdot \rceil$  to  $\lceil \cdot \rceil$ .
- (345) [4] p. [218], ¶ 2, l. 4: Change  $\lceil \text{hitherto} \cdot \rceil$  to  $\lceil \text{hitherto} \cdot \rceil$ .
- (346) [4] p. [218], fn. \*, ¶ 1b, l. 1: Change  $\lceil \text{p 13} \rceil$  to  $\lceil \text{p. 13} \rceil$ .
- (347) [1] p. [218], fn. ¶, ¶ 2, l. 1b: Change  $\lceil a \cdot b \in K \rceil$  to  $\lceil a, b \in K \rceil$ .
- (348) [1] p. [218], fn. ¶, ¶ 2, l. 1b: Change  $\lceil f \rceil$  to  $\lceil \setminus \rceil$ .
- (349) [4] p. [219], fn. †: Change  $\lceil \text{vi. pp. 54–55} \rceil$  to  $\lceil \text{vi. pp. 54–55} \rceil$ .
- (350) [4] p. [220], fn. \*, ¶ 1b, l. 1b: Change  $\lceil [P \lceil \rceil$  to  $\lceil [P \lceil \rceil$ .
- (351) [5] p. [221], ¶ 1, l. 3b: Change  $\lceil \Lambda \rceil$  to  $\lceil \Lambda \rceil$ .
- (352) [4] p. [221], fn. ¶, l. 2: Change  $\lceil \text{general} \cdot \rceil$  to  $\lceil \text{general} \cdot \rceil$ .
- (353) [2] p. [221], fn. §§:  $\lceil \text{Ibid.} \cdot \rceil$ : The page(s) is (are) missing.
- (354) [1] p. [222], ¶ 1, l. 8b: Change “ $\lceil \cdot \supset \cdot \rceil$ ” to “ $\lceil \cdot \supset \cdot \rceil$ .”
- (355) [3] p. [223], fn. §, l. 1: Change  $\lceil \text{N} \cdot \rceil$  to  $\lceil \text{No} \cdot \rceil$ .
- (356) [4] p. [223], fn. ||, ¶ 1, l. 2b: Change  $\lceil 16; \rceil$  to  $\lceil 16); \rceil$ .
- (357) [1] p. [225], ¶ 1b, l. 3: Change  $\lceil ab \smile ac \rceil$  to  $\lceil (ab \smile ac) \rceil$ .
- (358) [4] p. [225], fn. §, ¶ 1b, l. 1: Change  $\lceil \text{Formulaires} \rceil$  to  $\lceil \text{Formulaires} \rceil$ .
- (359) [2] p. [226], fn. †, l. 3b: Change  $\lceil \text{were} \rceil$  to  $\lceil \text{was} \rceil$ .
- (360) [4] p. [227], fn. †, l. 1b: Change  $\lceil \text{Formulaires} \rceil$  to  $\lceil \text{Formulaires} \rceil$ .
- (361) [4] p. [227], fn. §: Change  $\lceil 2, \text{Abteilung} \rceil$  to  $\lceil 2. \text{Abteilung} \rceil$ .
- (362) [4] p. [228], ¶ 1, l. 1: Change  $\lceil \text{Formulaires} \rceil$  to  $\lceil \text{Formulaires} \rceil$ .
- (363) [5] p. [229], fn. †, l. 3b: Change  $\lceil e \rceil$  to  $\lceil e \rceil$ .
- (364) [4] p. [230], ¶ 2, l. 2: Change  $\lceil \text{etc} \cdot \rceil$  to  $\lceil \text{etc} \cdot \rceil$ .
- (365) [5] p. [230], fn. †, l. 1b: Change  $\lceil \text{false} \rceil$  to  $\lceil \text{false} \rceil$ .
- (366) [4] p. [230], fn. †, l. 1b: Change  $\lceil \text{H. p. 241} \rceil$  to  $\lceil \text{H.}, \text{p. 241} \rceil$ .
- (367) [2] p. [231], ¶ 1b, l. 5: Change  $\lceil \text{a arbitrary} \rceil$  to  $\lceil \text{an arbitrary} \rceil$ .

- (368) [4] p. [231], fn \*, *l.* 1b: Change 「*Syllabus.*」 to 「*Syllabus,*」.
- (369) [2,4] p. [234], fn. §, *l.* 1: Change 「Soc. 17」 to 「Soc., C. 17」.
- (370) [1] p. [237], ¶ 2b, *l.* 1: Change 「 $\frac{0}{0}$ 」 to 「 $\frac{0}{0}$ 」.
- (371) [3] p. [237], fn. \*, ¶ 1, *l.* 1: Change 「*Aritmetik*」 to 「*Arithmetik*」.
- (372) [3] p. [238], ¶ 1, *l.* 1b: Change 「Thought」 to 「Thought」.
- (373) [1] p. [240], ¶ 1, *l.* 1: Change 「*D*」 to 「*B*」.
- (374) [1] p. [240], ¶ 2, *l.* 7b: Note that in this example 「but *B* is always found with *C,*」 doesn't matter.
- (375) [4] p. [240], fn. \*\*, *l.* 2b: Change 「vol.」 to 「vol.」.
- (376) [2] p. [240], fn. \*\*, *l.* 1b: For what 「logic of comprehension」 means, *cf.* p. [242], fn. §.
- (377) [3] p. [241], ¶ 2b, *l.* 4: Change 「npon」 to 「upon」.
- (378) [4] p. [241], fn. †, *l.* 2: Change 「*Logic.*」 to 「*Logic,*」.
- (379) [4] p. [241], fn. ¶: Change 「*Ibid.*」 to 「*Ibid.,*」.
- (380) [1] p. [242], ¶ 2b, *l.* 5: Change 「 $x = y$ 」 to 「 $x = xy$ 」.
- (381) [5] p. [243], ¶ 1, *l.* 1b: Change 「pos<sup>i</sup>tion」 to 「position」.
- (382) [3] p. [243], ¶ 2, *l.* 2: Change 「quantificatiom」 to 「quantification」.
- (383) [4] p. [243], ¶ 2, *l.* 6b: Change 「&c.」 to 「&c.,」.
- (384) [3] p. [244], ¶ 1, *l.* 8b: Change 「classs」 to 「class」.
- (385) [2] p. [252], *l.* 1b: For what 「*T. L. G.*」 means, *cf.* p. 256.
- (386) [3] p. [255], *Gg., ll.* 1–2: Change 「*begriffsschrift-lich*」 to 「*begriffsschrift-lich*」.
- (387) [3] p. [255], *G. u. E., l.* 1: Change 「*wissenschaftlichen*」 to 「*wissenschaftlichen*」.
- (388) [4] p. [257], fn. 2: Change 「i. p. 4」 to 「i., p. 4」.
- (389) [4] p. [257], fn. 5: Change 「i. p. 132」 to 「i., p. 132」.
- (390) [4] p. [258], fn. 11: Change 「pp. v.–vi. 3.」 to 「pp. v.–vi., 3.」.
- (391) [4] p. [258], fn. 14: Change 「ii. p. 253」 to 「ii., p. 253」.
- (392) [4] p. [259], fn. 16: Change 「i. p. 15」 to 「i., p. 15」.
- (393) [4] p. [268], fn. 1: Change 「*Md.*」 to 「*Md.,*」.
- (394) [4] p. [274], fn. 4, *l.* 1b: Change 「Ed,」 to 「Ed.」.
- (395) [4] p. [280], fn. 1: Change 「*Md. N. S.*」 to 「*Md., N. S.*」.
- (396) [4] p. [282], fn. 3: Change 「July,」 to 「July」.
- (397) [2] p. [292], ¶ 1b, *l.* 3b: Change 「was」 to 「way」.
- (398) [5] p. [296], ¶ 2b, *l.* 8: Omit 「:」.
- (399) [5] p. [296], ¶ 2b, *l.* 11: Omit 「:」.
- (400) [4] p. [299], fn. 2: Change 「M,」 to 「M.」.
- (401) [4] p. [304], fn. 2: Change 「i. pp. 127」 to 「i., pp. 127」.
- (402) [4] p. [304], fn. 3: Change 「ii. pp. 461」 to 「ii., pp. 461」.
- (403) [4] p. [305], fn. 2: Change 「iv. p. 261」 to 「iv., p. 261」.

- (404) [4] p. [306], fn. 1: Change 「Camb,」 to 「Camb.」.
- (405) [4] p. [321], fn. 4, *l.* 1: Change 「Jahresber,」 to 「Jahresber.」.
- (406) [4] p. [322], fn. 6, *l.* 1: Change 「Jahresber,」 to 「Jahresber.」.
- (407) [4] p. [326], fn. 2: Change 「pp. 36–7.,」 to 「pp. 36–7.」.
- (408) [4] p. [331], fn. 4, *l.* 1: Change 「vol. i.」 to 「vol. i.,」.
- (409) [4] p. [335], § A, ¶ 1, *l.* 1: Change 「Contrariwise,」 to 「Contrariwise,」.
- (410) [4] p. [335], § A, ¶ 1, *l.* 1: Change 「if」 to 「if」.
- (411) [4] p. [335], § A, ¶ 1, *l.* 1b: Change 「logic.」 to 「logic.」.
- (412) [2] p. [336], § F, ¶ 1, *l.* 1: Change 「p. 52–3」 to 「pp. 52–3」.
- (413) [4] p. [336], § G, ¶ 2b, *l.* 1b: Change 「Means“」 to 「Means」.
- (414) [4] p. [338], § N, ¶ 3, *l.* 1b: Change 「bargain?」 to 「bargain?」.
- (415) [4] p. [341], ¶ 1, *l.* 1: Change 「hand,」 to 「hand,」.
- (416) p. [346], Ladd [-Franklin], C.: The curious may *cf.* also pp. 118 and 120.

No doubt, there being so many of them, these corrections themselves will need corrections!

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