

referred to that the apostrophe should be used to indicate an omitted 18, never an omitted 19. It then occurred to me that a comma might be similarly used to denote the omission of 19; but there seemed to be such important objections to this, that I dismissed the matter without further thought until, a few weeks ago, I received a letter from Mr. R. Pearl of the University of Michigan, in which he urged the desirability of adopting some method of abbreviation, and suggested the use of a period. There are, however, quite as serious objections to a period as to a comma. After some correspondence on the matter it has seemed to both of us that the *colon* so used would afford the best solution to the problem; but in order to avail ourselves of other possible suggestions, we desire to call attention to the matter in SCIENCE.

The signs hitherto considered and some of the more obvious objections to them are the following: The *comma* would be objectionable because in almost every citation two commas—one for punctuation, the other to mark the elision—would be brought together, and no proof-reader could be expected to accustom himself to the anomaly; thus in a recent publication, if the dates had been 1993, etc., instead of 1893, etc., the use of the comma would have given this undesirable result: "In Anurida, as in Orthoptera (Wheeler, ,93; Heymons, ,95^b) and Lepisma (Heymons, ,97^a), etc." The *period* is so commonly used as a decimal point, that .93 or .97^a, for example, would be misleading. It would clearly be of some advantage to have a character that should stand, like the apostrophe, on a line with the tops of the figures; but the various signs which usually have that position, as the asterisk, obelisk, etc., have such a fixed usage, as a means of referring to footnotes, that it seems unwise to employ any of them for this purpose. An *inverted period* would be open to the objection that a defective apostrophe could not be distinguished from it. The *dash* takes up too much room; the *hyphen*, though shorter, is not better in this respect than the colon, and has the disadvantage that, in the case of papers occupying more than a single year in publication, it now has to serve for omitted digits which might, or might

not, be the figures 19, for which we should wish it invariably to stand.

So far as I recall, there is only one usage, except that of ordinary punctuation, to which the colon has been put that would be liable to interfere with its use for the purpose contemplated here. It has been used to separate the number designating a volume from that designating the first page of an article in that volume—a substitute for the letter *p*. Since in the proposed usage the colon would stand between the name of the author cited (not a number) and the last two figures of the year in which his paper was published, I think no ambiguity could arise. If, however, serious objections to the use the colon, or a better plan, occurs to any one interested in the matter, both Mr. Pearl and the writer would be glad to profit by suggestions communicated through SCIENCE or directly.

E. L. MARK.

HARVARD UNIVERSITY,
December 13, 1900.

ASTRONOMISCHER JAHRESBERICHT.

EACH year there is being issued under the editorship of Professor Dr. W. Wislicenus, from the press of Georg Reimer, an *Astronomischer Jahresbericht*, or annual review of all kinds of *astronomical publications*, including writings on geodesy and navigation if not too remotely connected with astronomy. This work is carried on under the supervision of the *Astronomische Gesellschaft*. The first volume contains the publications of 1899, and consists of xxiv + 537 pages, 8vo. This was issued in the spring of 1900.

In the interests of publishers, of readers and of the nation which he represents, the associate-editor for the United States desires to make the compilation and review of American publications on the above named subjects as complete as possible. To this end he invites authors and publishers to favor him with the title and place of publication of each book or article issued during 1901 and each subsequent year or a copy of the same if convenient that it may be reviewed for this purpose. The reviews are merely explanatory—not critical.

HERMAN S. DAVIS.

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