

A SUMMARY OF THE BIBLIOGRAPHIE ASTRONOMIQUE
OF LALANDE FOR THE YEARS A.D. 130 TO 1473,
THE EPOCH AT WHICH SCIENTIFIC BOOKS
BEGAN TO BE PRINTED.

The following paragraphs give the skeleton of an investigation that was begun half a dozen years since and that is not likely to be carried further by the present writer. It is accurate so far as it goes, and those who are interested in astronomical anatomy may be glad to see the figures here set down, and will know how to clothe them with flesh. They constitute a very small but a genuine contribution to the early history of astronomy.

SUMMARY OF LALANDE'S TABLES.

During the	II. century	2 authors are mentioned.
During the	III. century	2 authors are mentioned.
During the	IV. century	3 authors are mentioned.
During the	V. century	5 authors are mentioned.
During the	VI. century	2 authors are mentioned.
During the	VII. century	2 authors are mentioned.
During the	VIII. century	2 authors are mentioned.
During the	IX. century	5 authors are mentioned.
During the	X. century	4 authors are mentioned.
During the	XI. century	8 authors are mentioned.
During the	XII. century	13 authors are mentioned.
During the	XIII. century	14 authors are mentioned.
During the	XIV. century	19 authors are mentioned.

Lalande's data are incomplete but, even so, they exhibit a fundamental fact. *The renaissance of astronomy in Europe began in the twelfth century, or even earlier.*

About the year 1440 the art of printing began to be practised in Europe, but it was not until 1471-3 that works on astronomy were put forth. The 'Bibliographie Astronomique' of Lalande, the catalogues of the great astronomical library of the Imperial Observatory of Pulkowa, and other works of the sort, contain lists of astronomical books arranged in the chronological order of publication.

We can follow the movement of European thought very closely by following such lists year by year. The titles of the books give precise information as to the matters uppermost in men's minds; the number of publications in each decade exhibits something like a numerical measure of their activity; the reprints of the works of classic authors show how much each generation leaned on the past;

and the number of really original books indicates how far men were depending upon themselves. It is, moreover, very interesting to note how the places of publication slowly change from Germany to Italy. A true estimate of each century can, of course, be based only upon an examination of the books themselves. Rude statistics of the kind indicated are, however, of value.

I have, therefore, used the standard bibliographies of the years from the invention of printing (1440) to the date of the publication of the great work of Copernicus (1543) to prepare the little table that immediately follows.

TABLE SHOWING THE NUMBER OF ASTRONOMICAL
BOOKS PUBLISHED IN EACH DECADE
FROM 1472 TO 1600.

N. B.—*The numbers are the sum of the titles named in Lalande's Bibliographie Astronomique and in the Catalogues of the Library of the Imperial Observatory of Pulkowa, excluding duplicates.*

Undated books XV. century,	18 works.
1472-1480,	34 works.
1481-1490,	55 works.
1491-1500,	83 works.
XV. century (total),	190 works.
1501-1510,	73 works.
1511-1520,	88 works.
1521-1530,	81 works.
1531-1540,	152 works.
1541-1550,	130 works.
First Half XVI. century,	524 works.
1551-1560,	181 works.
1561-1570,	134 works.
1571-1580,	208 works.
1581-1590,	171 works.
1591-1600,	191 works.
Second Half XVI. century,	885 works.
XVI. century (total),	1,409 works.

The foregoing table exhibits the growth of astronomical publication very clearly. It shows a steady growth during the whole period from 1472 to 1600, and marks a decided increase of activity at the end of the first third of the sixteenth century, just before the advent of the epoch-making book of Copernicus.

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