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Further Remarks on an Astrolabe

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FURTHER REMARKS ON AN ASTROLABE.

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As I have had an opportunity of again inspecting the instruments in the British Museum, and have been permitted by the Treasurers of Oriel to examine minutely that in their charge, I must ask permission to add a postscript to my notes on Mr. Hyett's Astrolabe.

The first point of Aries is against 13-14 March in the Sloane instrument, against 12-13 in the Blakenei.

The Oriel instrument consists of a table prepared for latitude 51° , and a rete, kept together by a rivet on which they turn freely, and of which the head formerly bore a pointer now broken off; the thinness of the metal, and the fact that a strip three quarters of an inch long has been neatly cut out of the upper edge of the table, seem to indicate that it was made to lie in a mother, kept steady there by a tooth filling this notch; on the other hand there is no sign of a hole through which might pass the pin tying all moveable parts together, and the piece removed is far too large for a notch: of course if there be no part missing the instrument cannot have been used for observation, but only to facilitate calculation. The circle of Cancer is drawn only up to the points at which it would cut the horizon obliquus; that of the equinoctial is cut deep up to the same points, but beyond only faintly, so faintly that at first I took it to be only a guide line to help the engraver in the neat arrangement of the numbers of the almucantaras; these are drawn, and numbered from each side, for every other degree up to 30, and thence the numbers run in a single line to the centre for every third degree. The azimuths are drawn at intervals of 15 degrees. The outer circle is divided into the 360 degrees, which are numbered in fives; and again into hours numbered 1 to 24. The outside diameter of the table is 13.5 inches. On the back are some lines which seem intended to serve the purpose of an umbrae-recta-versa table, and for other uses which I cannot conjecture.

The rete is 12.5 inches in diameter, and names 18 stars, among which the tongue for Allabor alone is broken off; the outer rim, which I have seen on no other rete, is divided into months and days, but the upper portion of the rim, that which should bear the days before January 20, and after November 3, is broken away; it seems that the first point of Capricorn was to answer to December 12, but measurement proves that there must have been a gap equal to 9 degrees between the two ends of the rim, which, for a circle of that diameter, would measure something less than an inch, and so corresponds pretty closely with the bit cut out of the table. The first points of Aries and Libra, of Cancer and Capricorn, are evidently intended to agree with the twelfth of the corresponding months; this could never be right, and I infer that the calendar is engraved on the rim by way of ornament on'y; the gap left at the top also would prevent any accurate agreement of the points of the zodiac with the days of the year. When I have added that the names of the later months are abbreviated as in the Merton instrument, I have exhausted my notes.

I should take it to be the whole of an instrument (not of observation, but) of calculation, of much the same date as the fine one at Merton, and possibly made by the same hand; I have said above that this is for use in latitude 51° , but if it be really intended, as that is, for $52^{\circ} 6'$, I can only say that the circle for 51° would be the nearest drawn, and would pass very close to the centre of the table. After seeing all the old English Astrolabes I can hear of, I may repeat my conclusion; the Merton instrument is the most curious, the Sloane the most interesting, and Mr. Hyett's the best typical specimen of the Astrolabes actually in use for observation in the 14th century.