

The Milky way from the North pole to 10° of south declination drawn at the Earl of Rosse's observatory at Birr castle,

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KAARTI *VII*. S. 29

THE MILKY WAY

FROM THE NORTH POLE TO 10° OF SOUTH DECLINATION

DRAWN AT

THE EARL OF ROSSE'S OBSERVATORY AT BIRR CASTLE

OTTO BOEDDICKER.

STERREWACHT ZONNENBURG UTRECHT.

LONDON: LONGMANS, GREEN, AND CO.

AND NEW YORK: 15 EAST 16th STREET.

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THE MILKY WAY

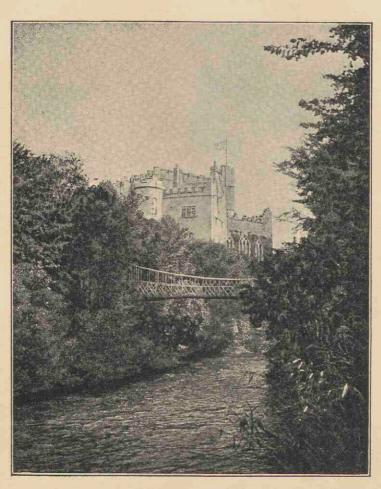
FROM THE NORTH POLE TO 10° OF SOUTH DECLINATION

DRAWN AT

THE EARL OF ROSSE'S OBSERVATORY AT BIRR CASTLE

BY

OTTO BOEDDICKER



BIRR CASTLE, FROM THE WEST

LONDON: LONGMANS, GREEN, AND CO.

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1892



The large mass of nebulosity between τ , ζ , and ϵ Cygni, and extending towards Aquila, should be slightly darker, whereas on Plate IV. (General View) it is rather too dark. The region between γ and β Cygni shows the lanes separating the different patches of nebulosity too plainly. Yet I consider these divisions very conspicuous, and am surprised that they have never been drawn before.

The preceding boundary of Scutum I have drawn too distinctly; the nebulosity should be more extended in that direction. Yet the general shape of the region in Scutum will, I think, be found fairly correct. It obviously shows that the name of the constellation was not inaptly derived from the shield-like patch of Milky Way light.

The most brilliant portions in the whole section are, in order of brightness, the ray from β to ϵ Scuti, the region north of α Cygni, and the ray proceeding to the south from γ Cygni.

7. Plate II.—Section 'Cassiopeia.' The Galaxy decreases considerably in brightness on entering Cepheus. The only spot which almost equals the region north of α Cygni in intensity is the cluster χ Persei; next in brightness comes the spot near 496 O Σ . Both these markings, especially the former, did not come out sufficiently intense in the plate as finally struck off.

I found the delineation of this section connected with considerable difficulty, owing to the faintness of the nebulosity and the brilliancy of the stars which it surrounds; yet I think that the main features of my drawing will be readily confirmed. Towards the north the Milky Way embraces the Pole star, and towards the south it sends out numerous feelers, the most extended of which reaches γ Arietis.

8. Plate III.—Section 'Auriga, Gemini, Monoceros.' The remarks made at the beginning of paragraph 6 apply with special force to this section. In fact, to such an extent are the lanes in it filled in with nebulous light, that this portion of the Galaxy appears at first to be essentially one broad stream of uniform luminosity. In order, therefore, to bring out the detail which long-continued examination reveals, the contrast had to be not inconsiderably exaggerated. The gradation of the different parts is well represented in the lithograph, and the intensity of the whole section in proportion to the remaining parts of the Galaxy is satisfactorily shown on Plate IV.

On the preceding side the Milky Way sends out feelers as far as Præsepe, on the following one it embraces the Pleiades, the Hyades, and Orion certainly as far as π^1 to π^6 . These feelers and the sweep through π^1 to π^6 Orionis, as well as some other outlying detail, have been lost in the final printing-off. As they are, however, sufficiently indicated on Plate IV., it would be advisable, before use, to compare Plates I. to III. with Plate IV., and, by means of the stump, to insert into the former the detail only shown in the latter. It was obviously lost mainly through our attempt to indicate in the sections the fainter parts of the Galaxy in their correct proportions of intensity. It should be added that the cluster in Perseus on Plate II. should be inserted in two distinct patches, the places of which may be taken from Argelander's maps.

My remarks are here based on the comparison of one set of plates only with the original drawing. It is, of course, possible—or even probable, since all the features now missing were shown in the proofs—that a portion only of the whole edition will require the slight corrections indicated above.

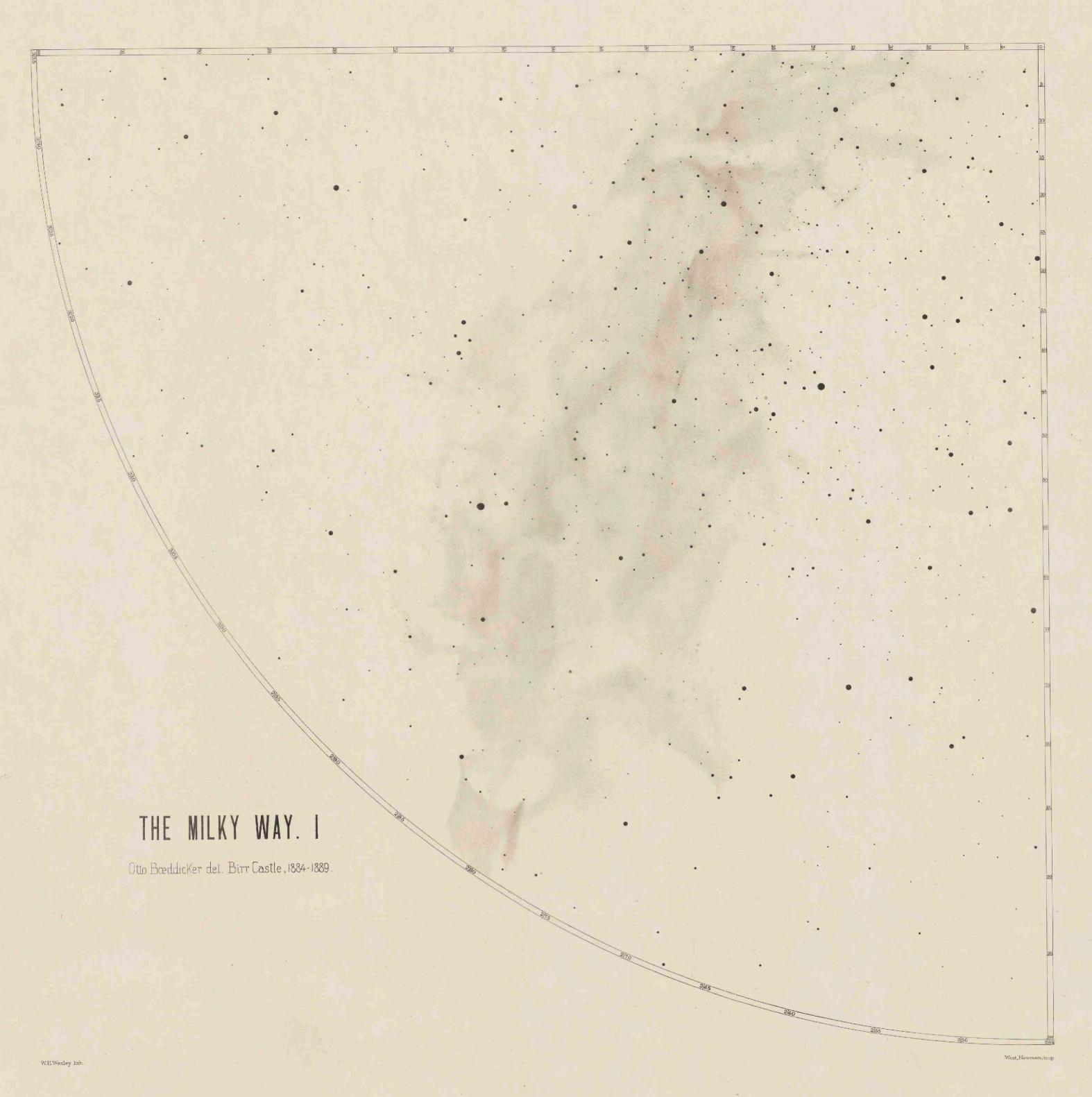
9. Plate IV.—General View. The whole of the detail on this plate is deliberately exaggerated—a little too much so, perhaps, for correct gradation in the region Cepheus-Cassiopeia.

To. In concluding, I take this opportunity of expressing my conviction that the admirable photographs of the Milky Way recently produced by Messrs. Barnard, Russell & Wolf in no way supersede careful hand-drawing of what is seen by the naked eye. The photograph obviously gives a section of the Galaxy lying much beyond what we see without optical means, since it resolves into stars what to the naked eye appears as unresolved nebulosity. Thus the hope appears justified that by superimposing the drawing on the photograph some knowledge of the structure of the Milky Way in the line of sight may be obtained. To assist myself in carrying the subject further in this direction, I have already begun to photograph the Galaxy systematically, giving each plate the same exposure, so as to penetrate into space all along the Milky Way to the same depth. Before this work is carried through, some years must necessarily elapse. In the meantime, much aid could be given by naked-eye observers by correcting the drawing laid here before them. For, though it is the result of five years' labour, still I wish it to be regarded as a first approximation only to a really accurate representation of the naked-eye view of the Milky Way.

OTTO BOEDDICKER.

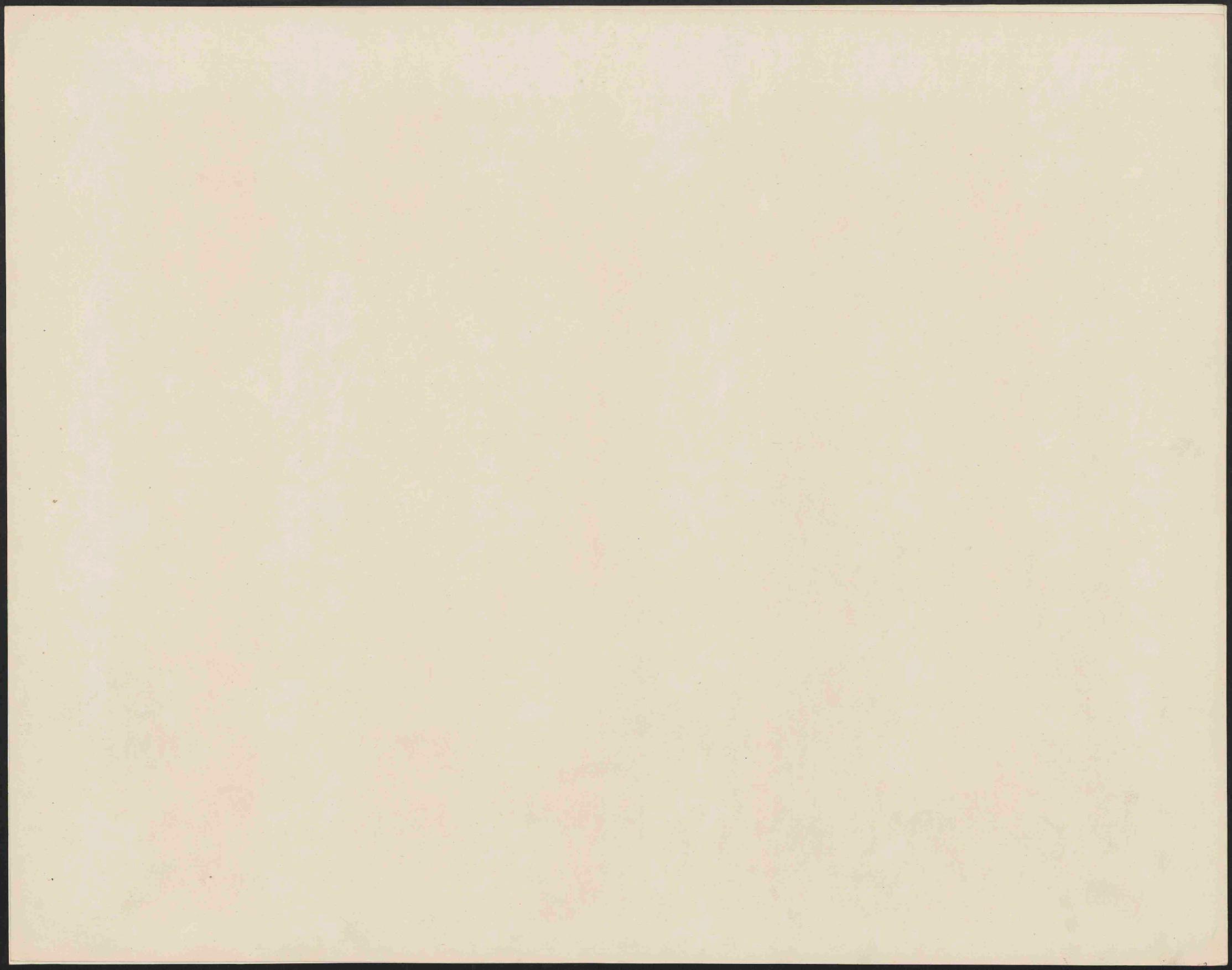
Birr Castle Observatory, Parsonstown:

December 6, 1891.



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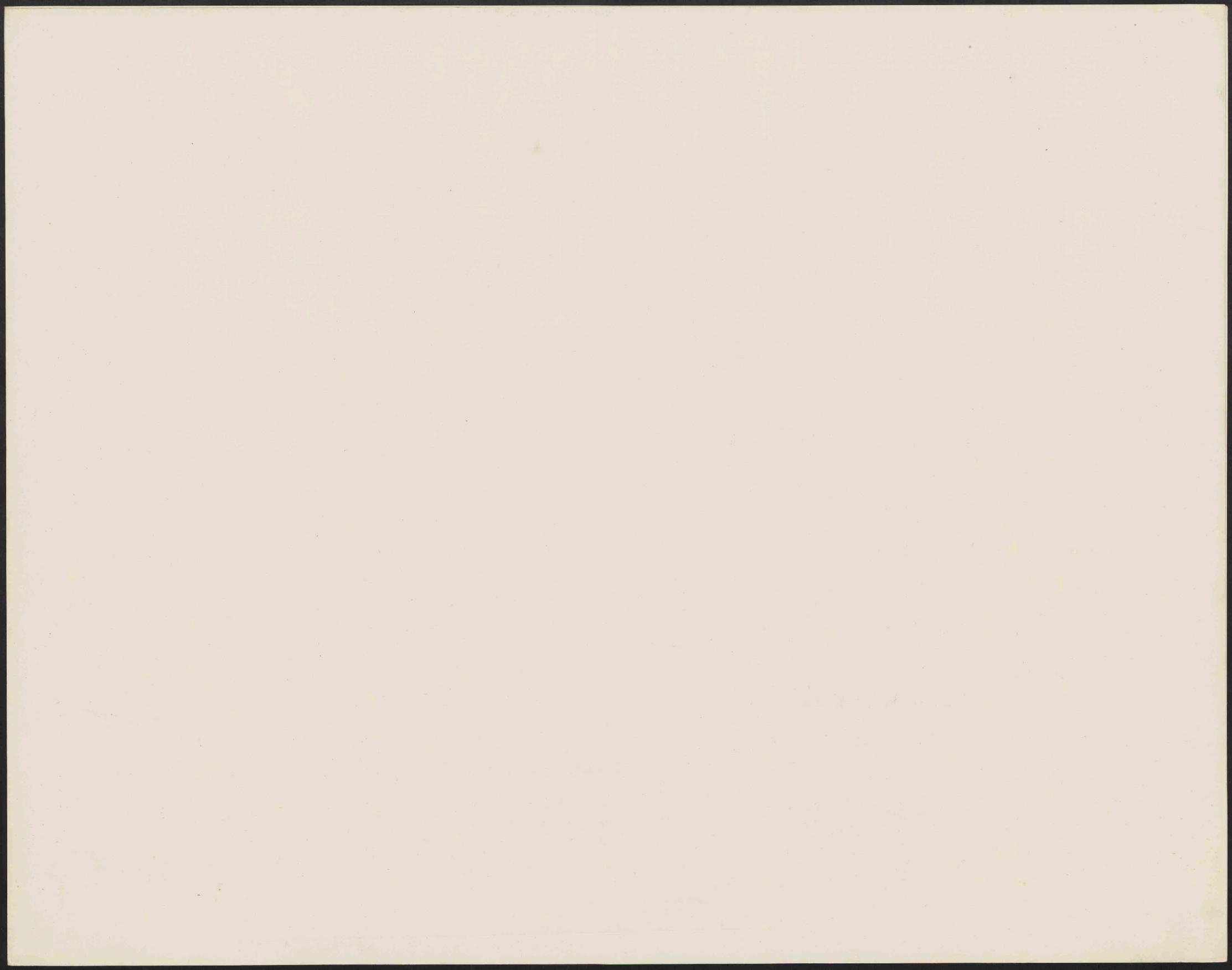
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