

AIR MINISTRY.

METEOROLOGICAL OFFICE. GEOPHYSICAL MEMOIRS, No. 16.

**AIDS TO FORECASTING:
TYPES OF PRESSURE DISTRIBUTION.**

**WITH NOTES AND TABLES FOR THE
FOURTEEN YEARS 1905-1918.**

BY
E. GOLD, F.R.S.

Published by the Authority of the Meteorological Committee.



LONDON

To be purchased from

THE METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON, W.C.2, OR EXHIBITION ROAD, LONDON, S.W.7
1920.

Price 2s 6d. Net.

TABLE OF CONTENTS.

	PAGE
INTRODUCTION	149
Table I. Type of the Morning Weather Chart on each Day in each Month for the Years 1905-18 .	151
II. Days in each Month on which each Type occurred during the Years 1905-18 .	157
III. Type Frequencies. Totals for 14 Years .	169
Notes on the Types .	169

ILLUSTRATIONS.

Plates I.-VII. Charts of Typical Pressure Distributions .	150
---	-----

TYPES OF PRESSURE DISTRIBUTION.

AND A

CLASSIFICATION ACCORDING TO THE TYPE OF THE CHARTS FOR 1905-1918.

At the present stage of the science and practice of forecasting, the forecaster who is confronted with a meteorological situation which is at all doubtful feels the need for reference to some previous situations of a similar character, so that he may see what developments occurred. This is especially the case when he has to give an opinion in connection with military operations. He knows his responsibility is great: he knows that an indefinite opinion is unsatisfactory, but he cannot give a definite one unless he knows that his experience and meteorological knowledge justify it.

The same may be said of the forecaster who is asked to give an opinion about the weather for a longer time ahead than that covered by the forecasts normally issued.

Experience is very largely conscious, or subconscious, memory of types or of decisive factors in the chart; and to a certain degree the value of experience increases with its length; but it is not possible for every forecaster to have had long experience, and, even if it were, the human mind is limited and retains by no means all the impressions which the daily charts produce upon it.

Some classification, therefore, of the charts for preceding years is practically essential, both for the forecaster who is learning his job and for the experienced forecaster who wishes to make progress in accuracy and in the length of time to which his forecasts can extend.

Whenever one comes to the practical task of classifying the various charts one is met with the difficulty of choosing suitable types. At the first attempt at solving this problem an arrangement according to the general direction of the isobars was made, and types West, SW., and South, etc. were chosen. This method, however, proved to be unsatisfactory, and in the end fifteen types and sub-types shown in the diagrams were selected. The charts for fourteen years, 1905-1918, have been analysed by months according to these types. The analysis has been made by officers and men of the Meteorological Section, R.E., at Montreuil, at the end of 1918 and beginning of 1919.

The results of the analysis are shown in the Tables I. and II. Naturally this classification is only a first step: it takes account simply of the general features of the pressure distribution. On the whole, this may be said also to take account of the wind distribution, but it takes no account of what is next in importance, isallobaric distribution, *i.e.* nature of the changes of pressure which are in progress. Nor does it take account of the distribution of temperature and weather. Unfortunately, charts showing

the isallobaric distribution are not available at present, but it is very desirable that they should be drawn and that the types of pressure distribution should be sub-divided into types, with perhaps four representative isallobaric distributions.

The general principle which has been used in selecting the types illustrated below is to regard the position of the anticyclone as the dominating feature. The charts start with the anticyclone to the SW., then go on, with the anticyclone moving Eastwards, until it is South of the area concerned ; then to SE., then East, then NE., then North, then NW., and so on.

A few additional charts of a special character have also been added, such as the indefinite area of low or high pressure, the trough, the dumb-bell depression, and the depression or the anticyclone centrally situated. The types were selected primarily with reference to the weather of the SE. of England and NE. of France.

The first set of tables gives for each month the type to which the morning chart of each day most nearly corresponds. The second set of tables shows for each type the days in each month of each year when that type occurred.

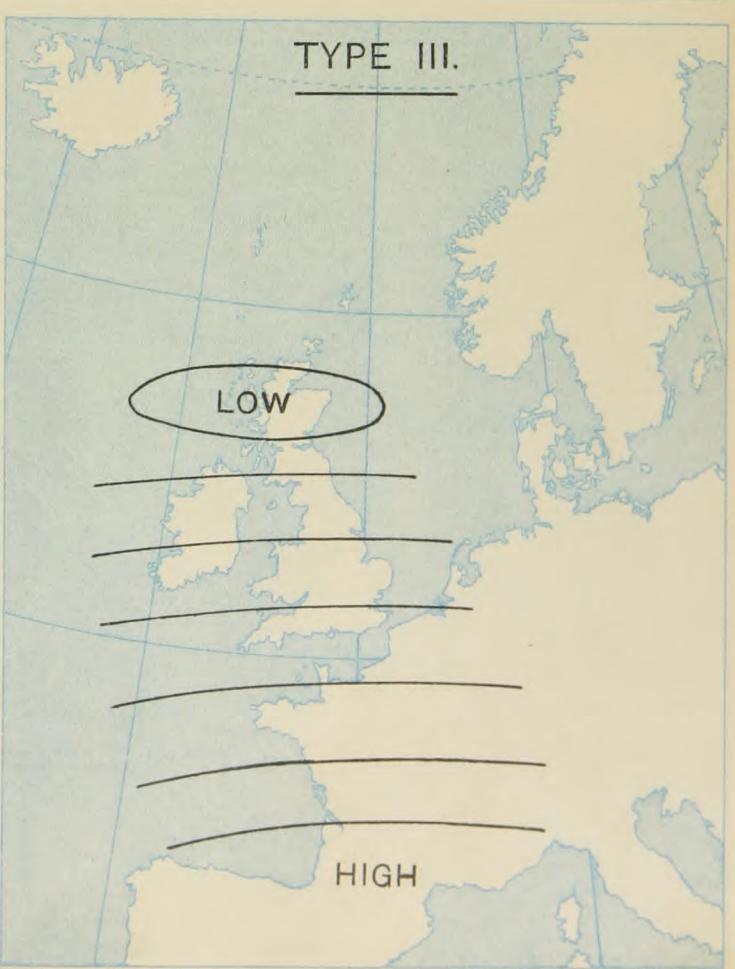
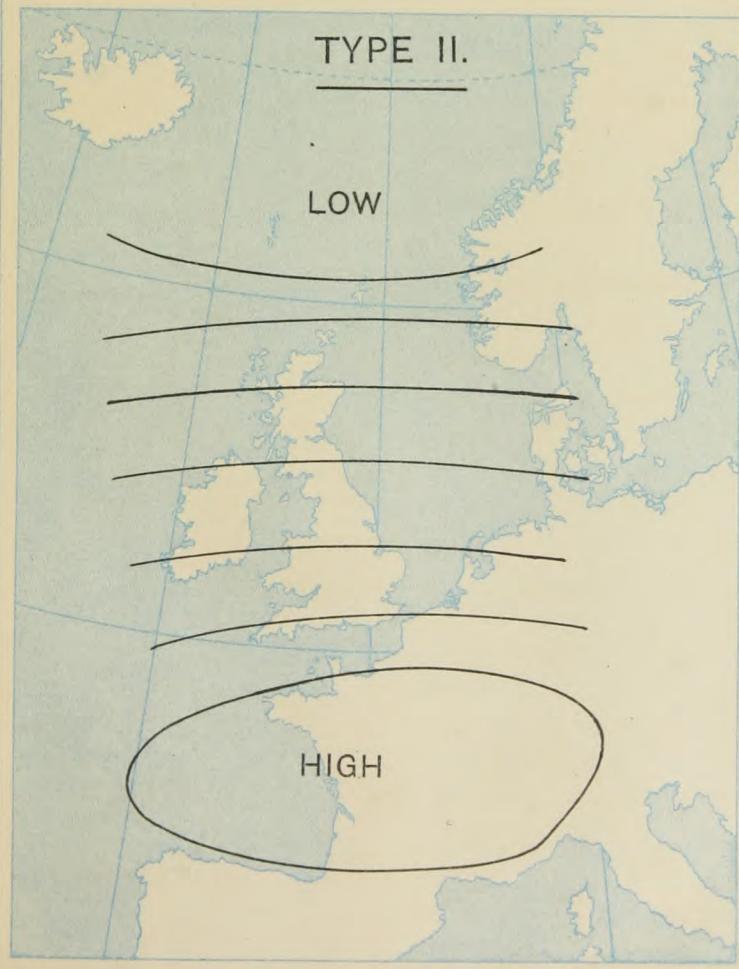
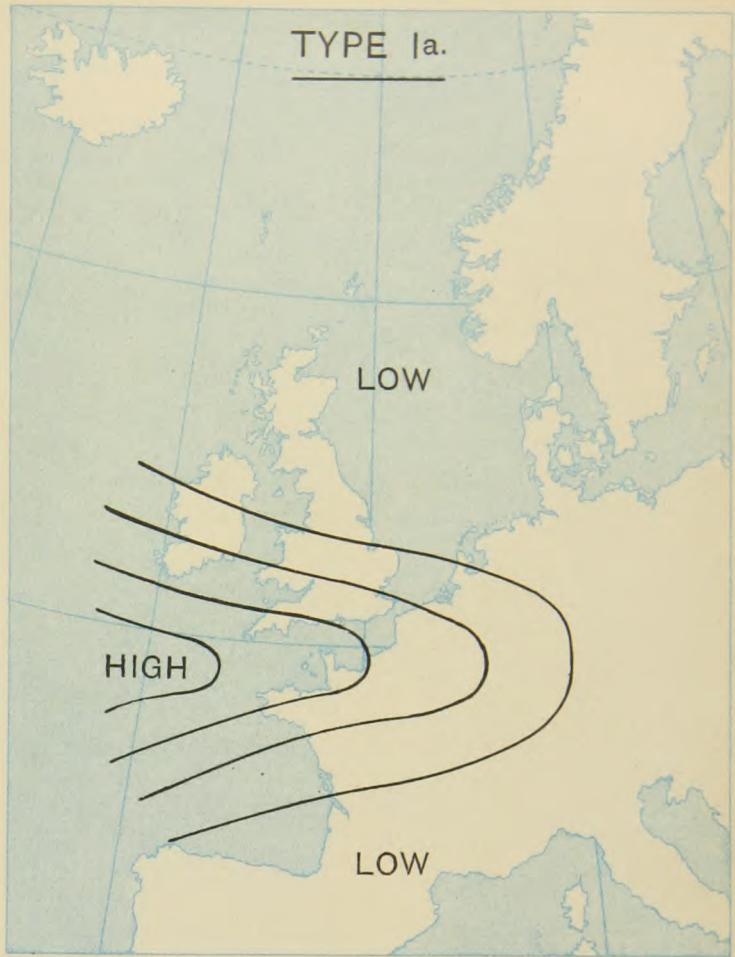
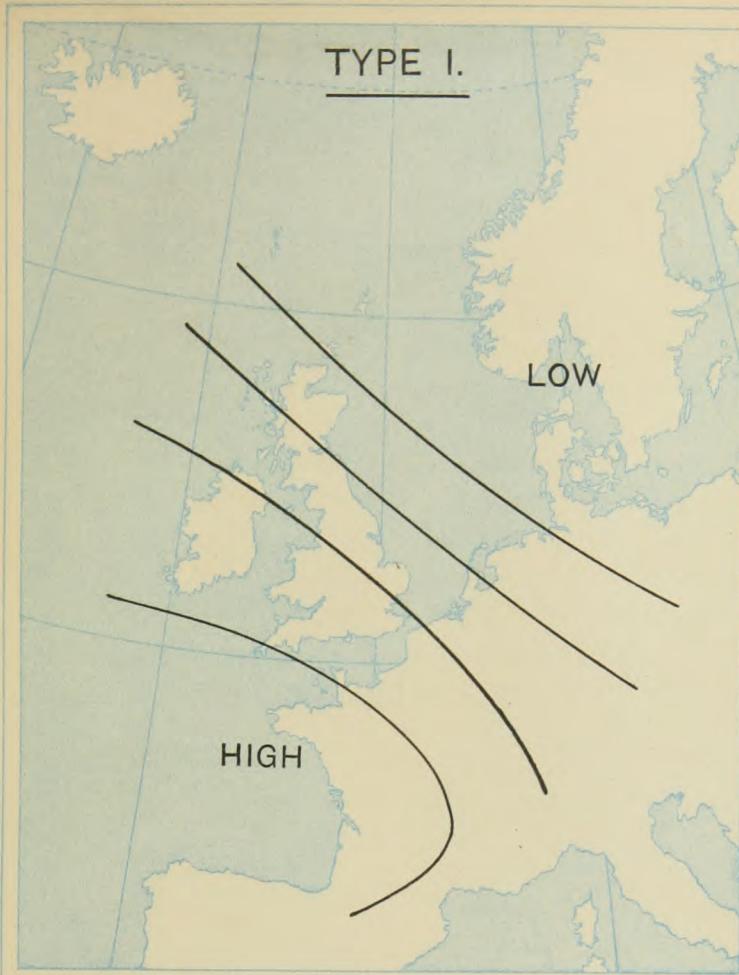
The second set of tables is intended for actual daily use. The forecaster, having drawn his chart, decides to which type it most nearly corresponds, and looks up the dates in the corresponding month on which this type previously occurred. He then turns up the charts for those days, sees how they developed, and notes any outstanding features in which particular charts have affinity with the chart for the day with which he is dealing.

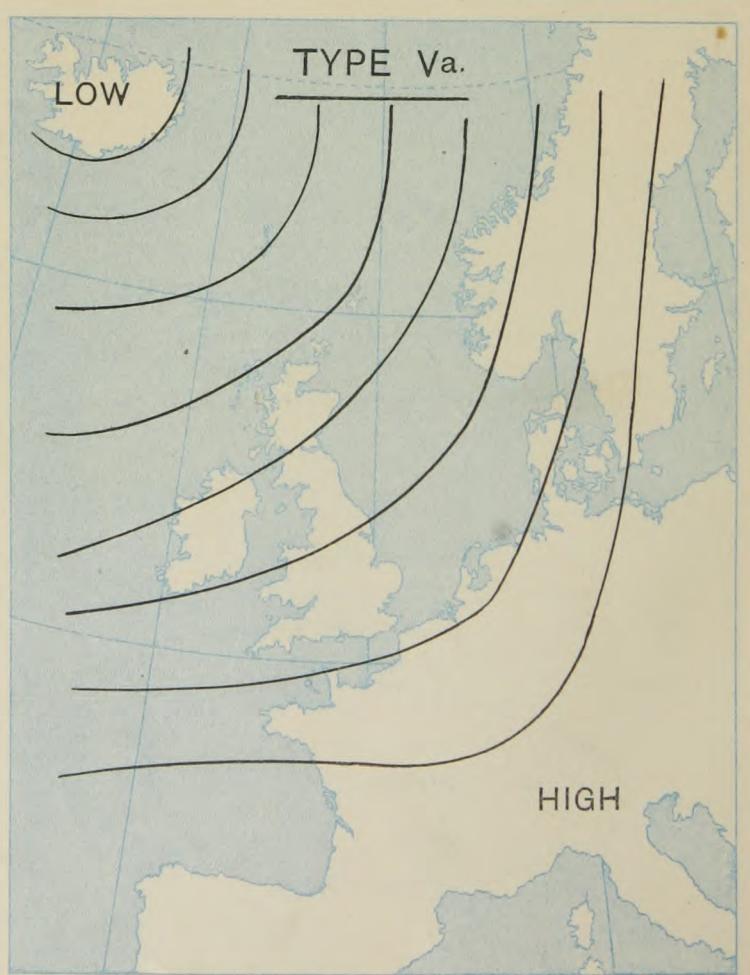
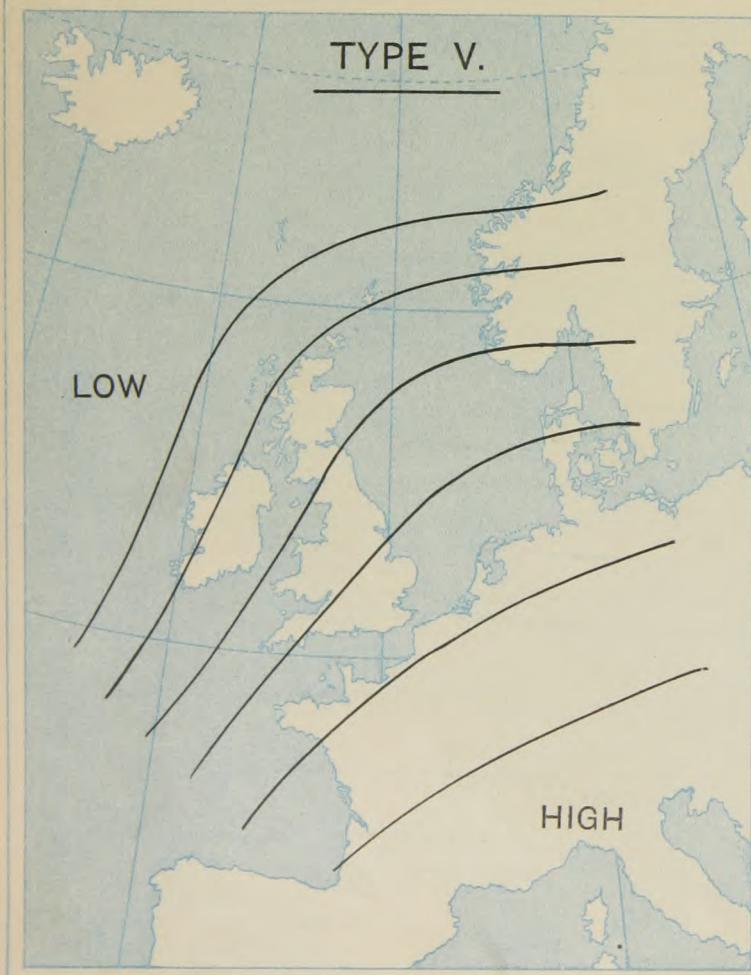
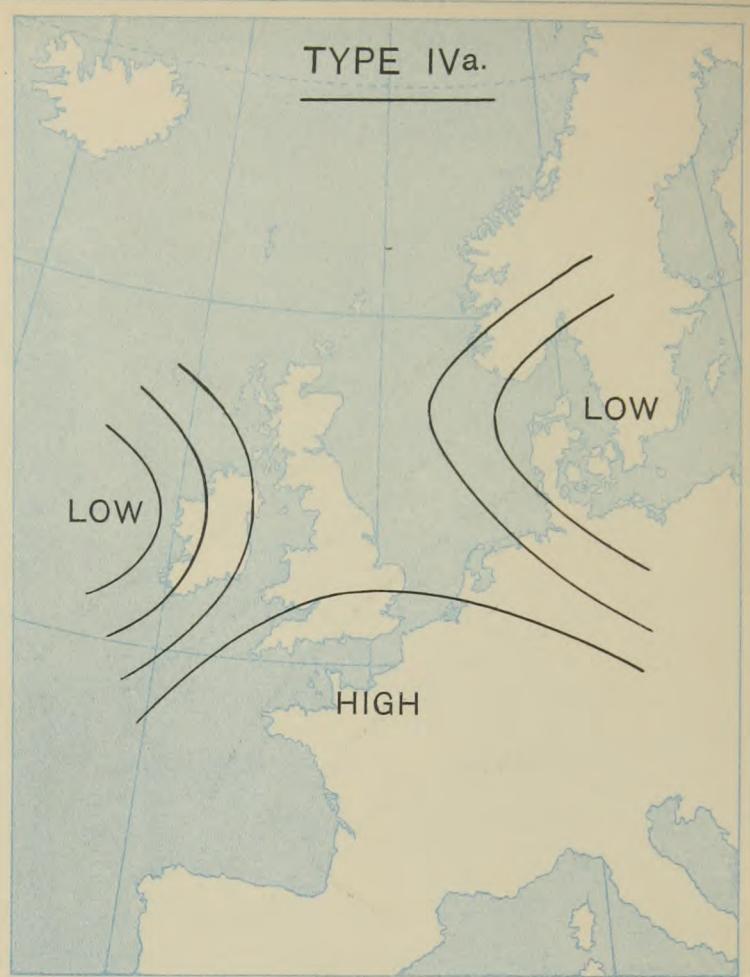
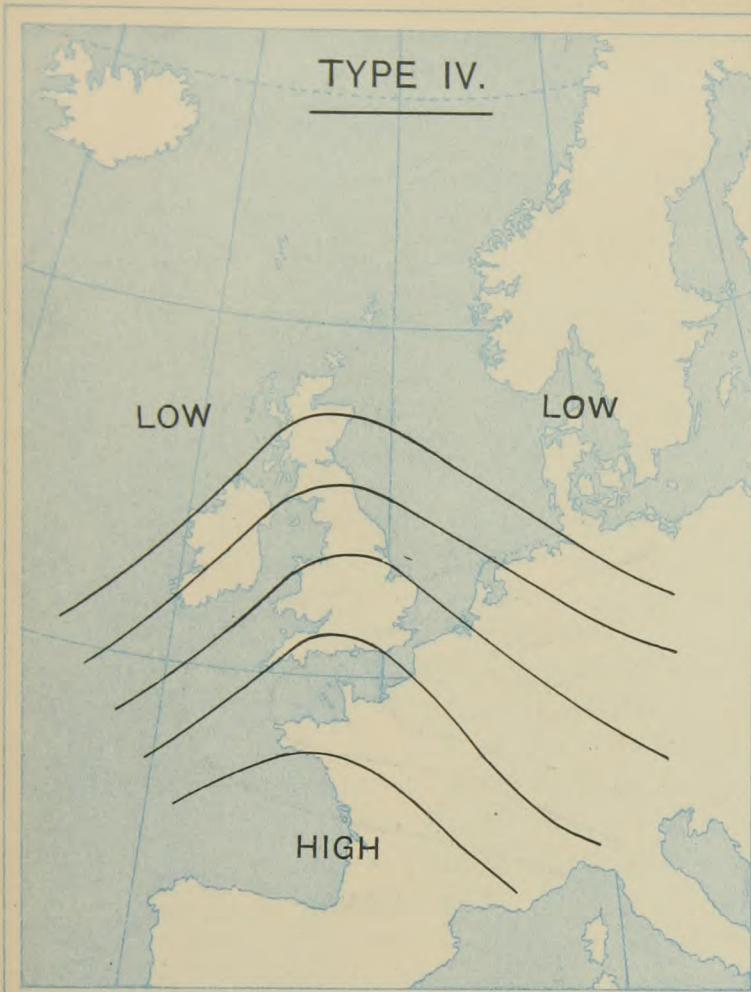
In many cases his examination of the charts will enable him to say with a fair degree of confidence what change will occur in the chart during the succeeding twenty-four hours.

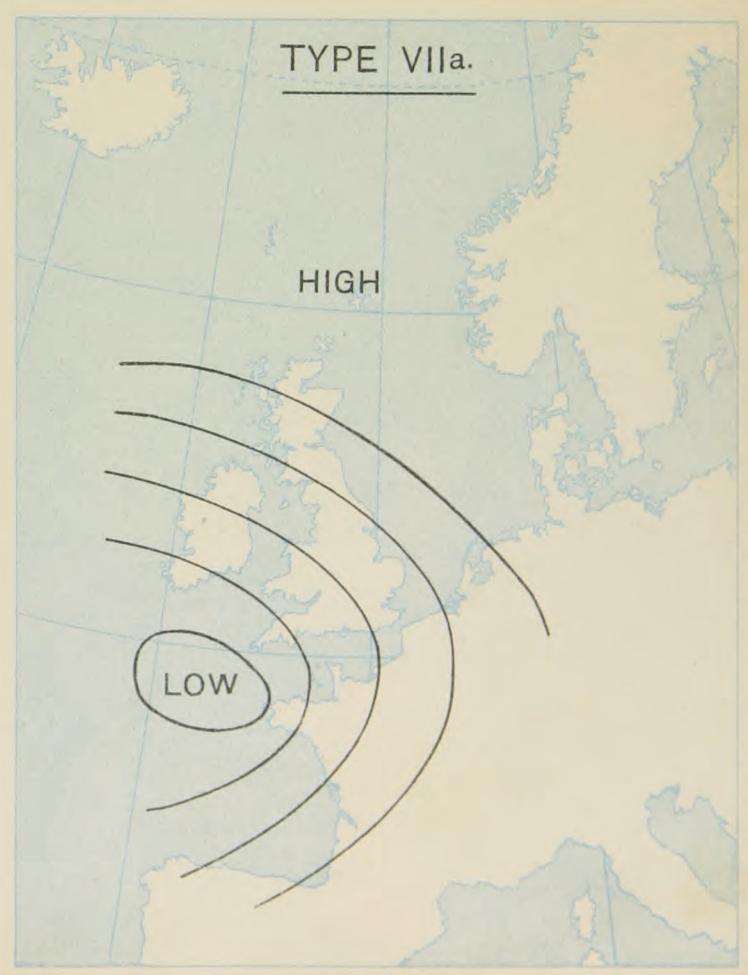
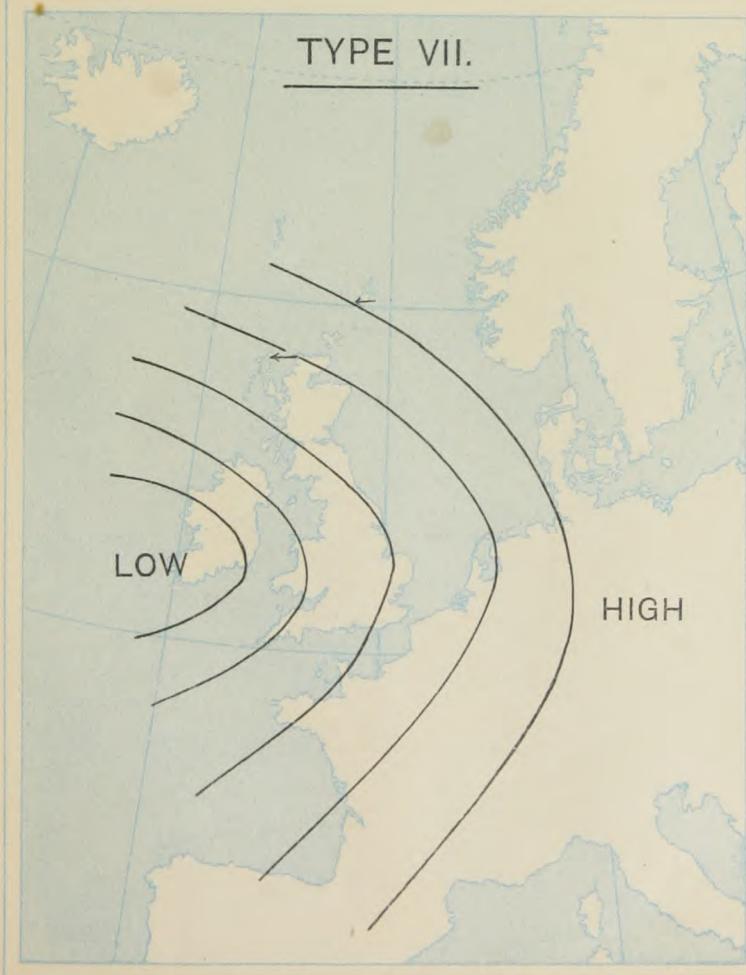
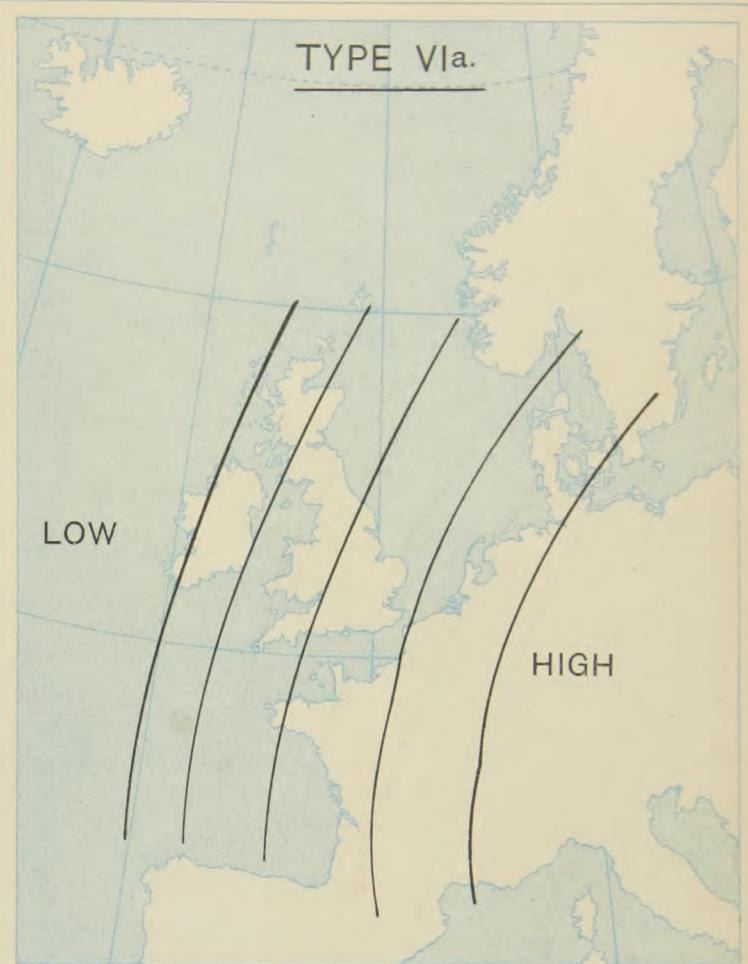
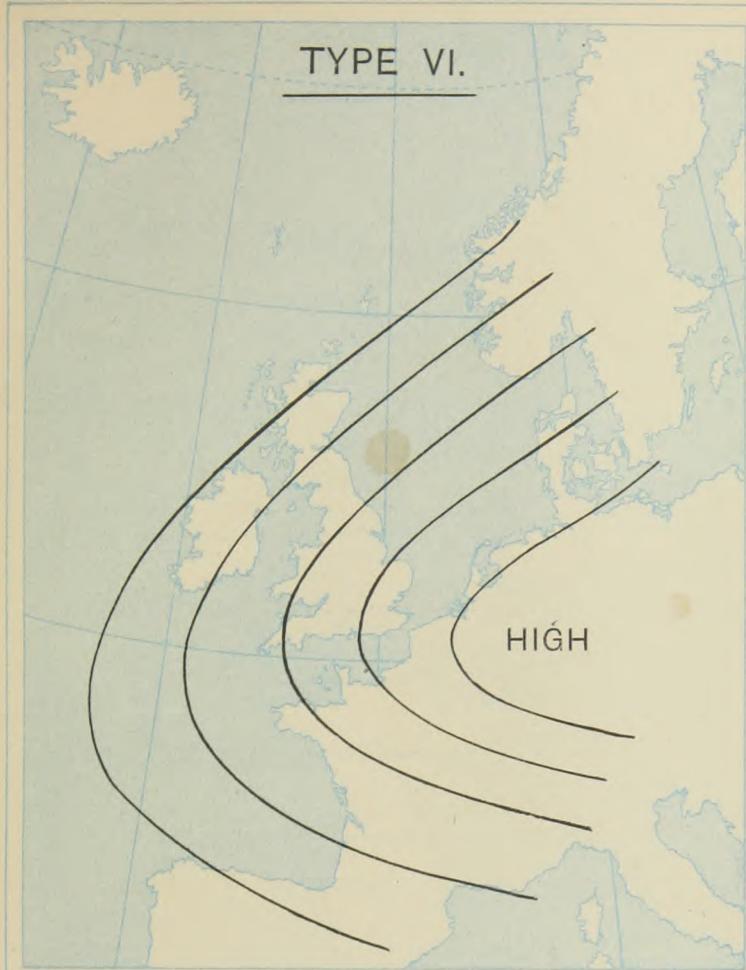
Naturally, to make a good forecast for a particular locality the weather of that locality must be known for the previous occasions similar, as regards distribution of pressure, to the occasion with which the forecaster is dealing. Thus a local forecaster ought to have a set of synoptic charts, interleaved, with particulars of the weather for his locality written in, so that he may see what weather actually prevailed on the occasions which he is using for reference. The particulars should include tables of the values of the principal meteorological elements for different places and times during the twenty-four hours, and a brief plain language summary of the conditions over the area. It is not possible to obtain these particulars in sufficient detail for past years, though much information could be furnished from the monthly returns and weather diaries of climatological stations in the British Isles.

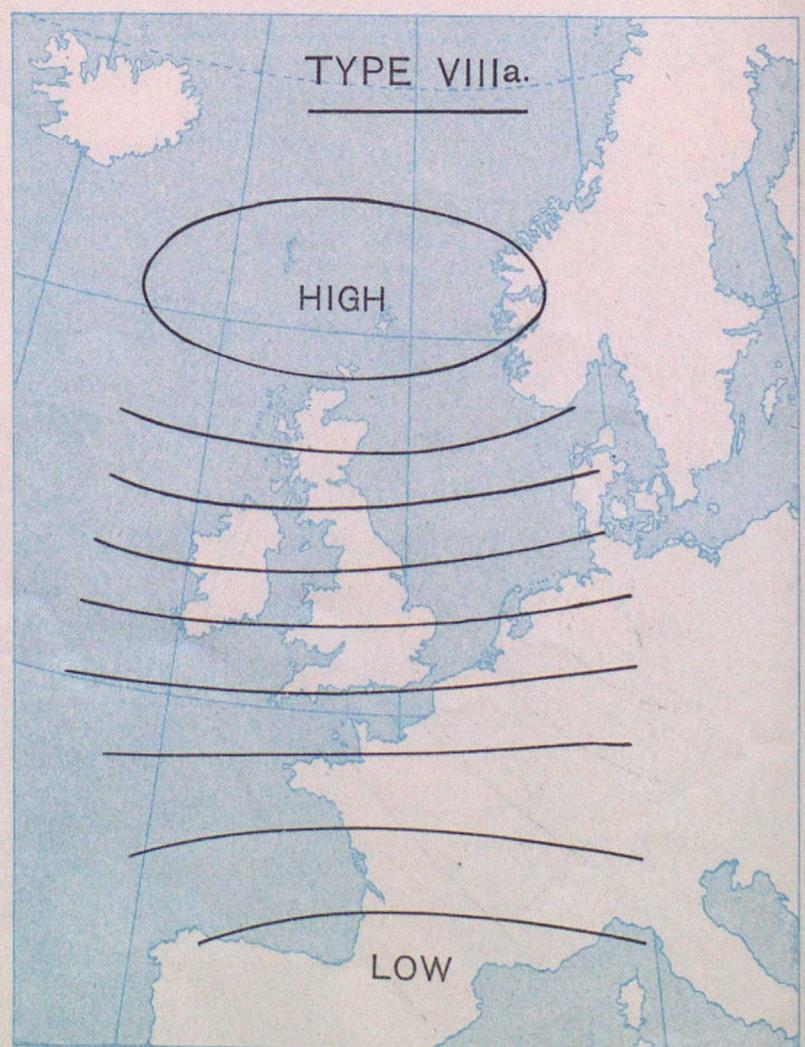
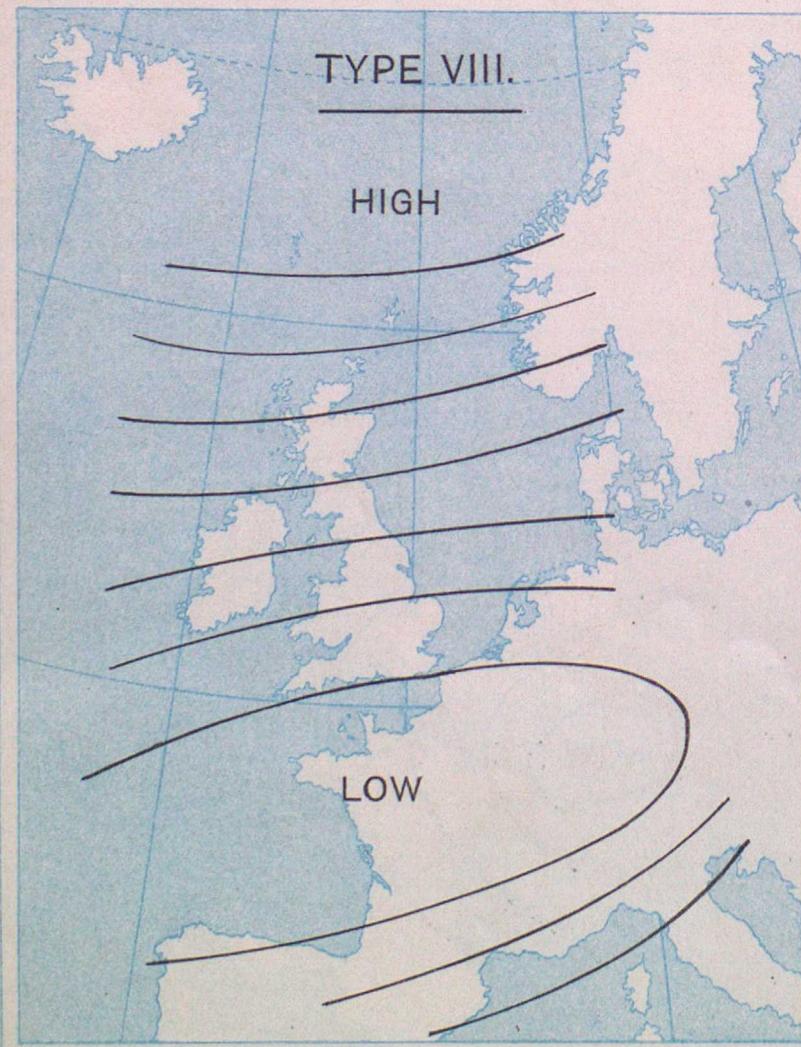
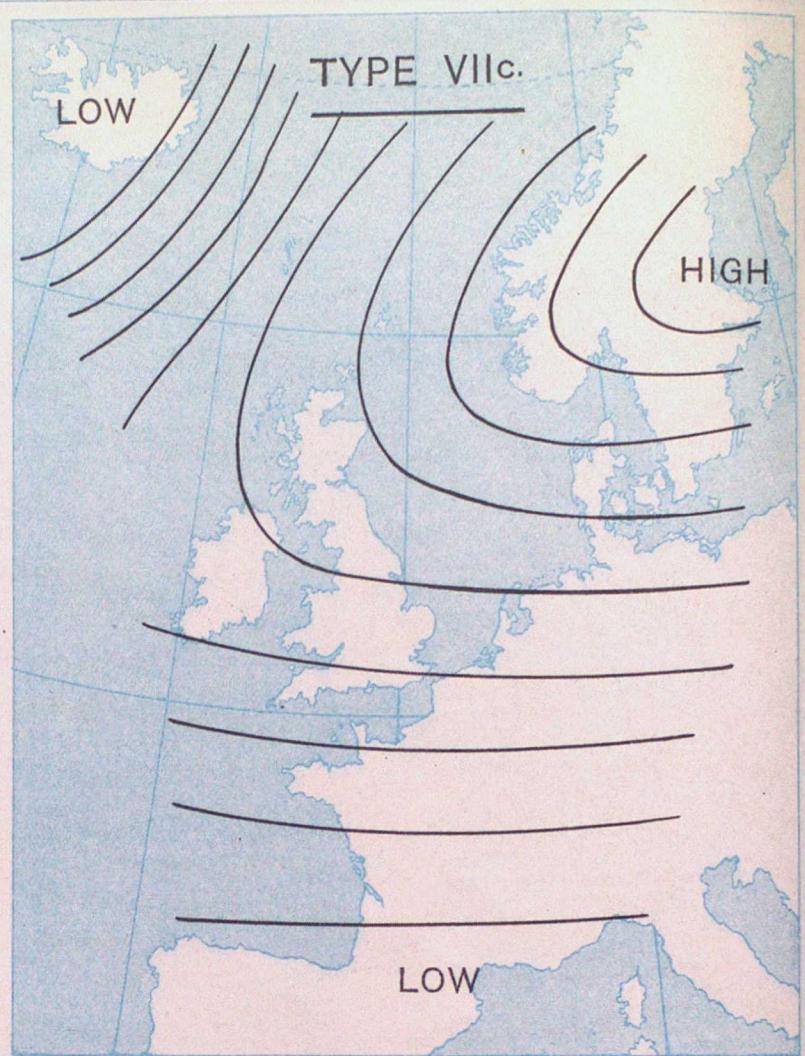
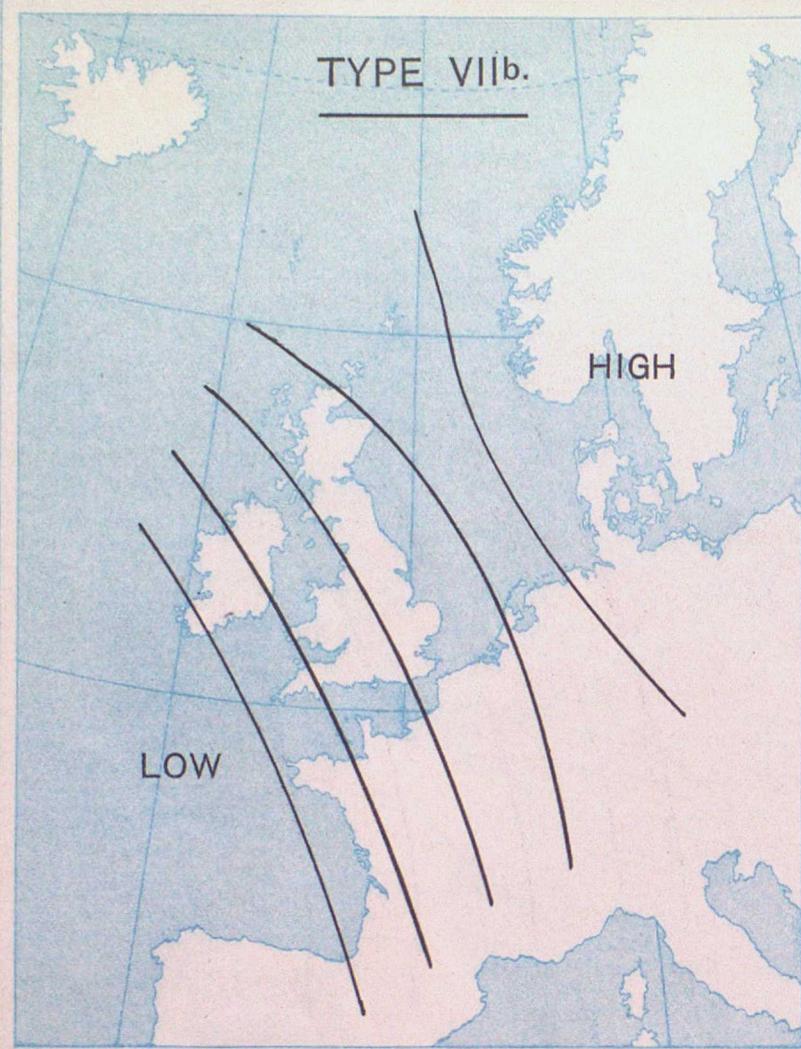
The primary purpose of such an arrangement of information is to assist in day to day forecasting ; but the results could be usefully employed in summarising and discussing from the statistical standpoint the weather associated with the different types. Such a programme is no new idea in meteorology : Sir Napier Shaw drew attention to the need for it fifteen years ago, and summarised the climatological information for different types for certain districts ; and one of the first things which I asked Capt. D. Brunt to tackle, on his arrival in France in June 1916, was the question of the relation between the amount of low cloud in Flanders at different times of day and the general direction of the wind : data for a full discussion were not available, but the inquiry showed clearly the reduction of cloud amount towards evening with the Westerly type.

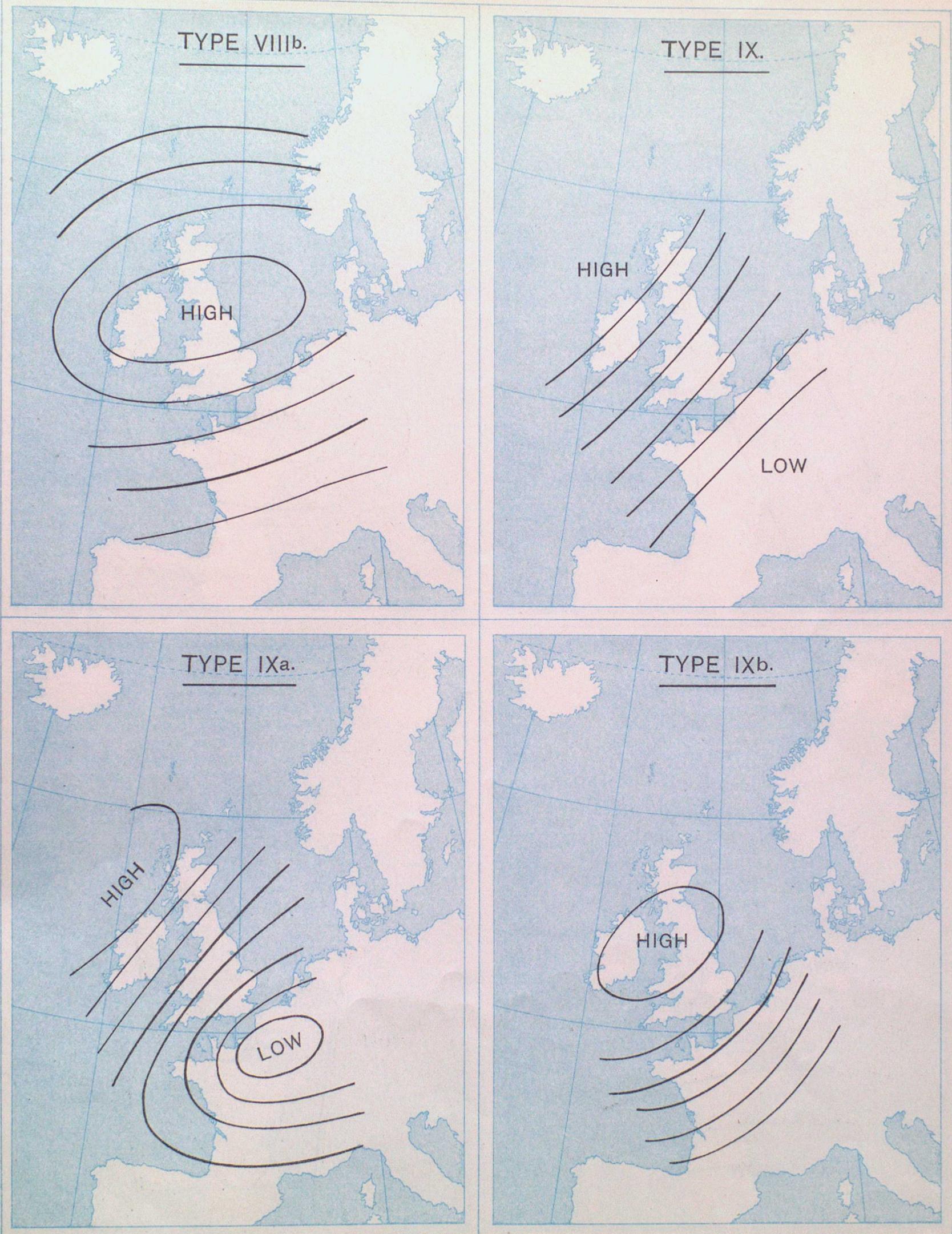
Many charts, naturally, do not fit any of the types exactly ; and in some cases

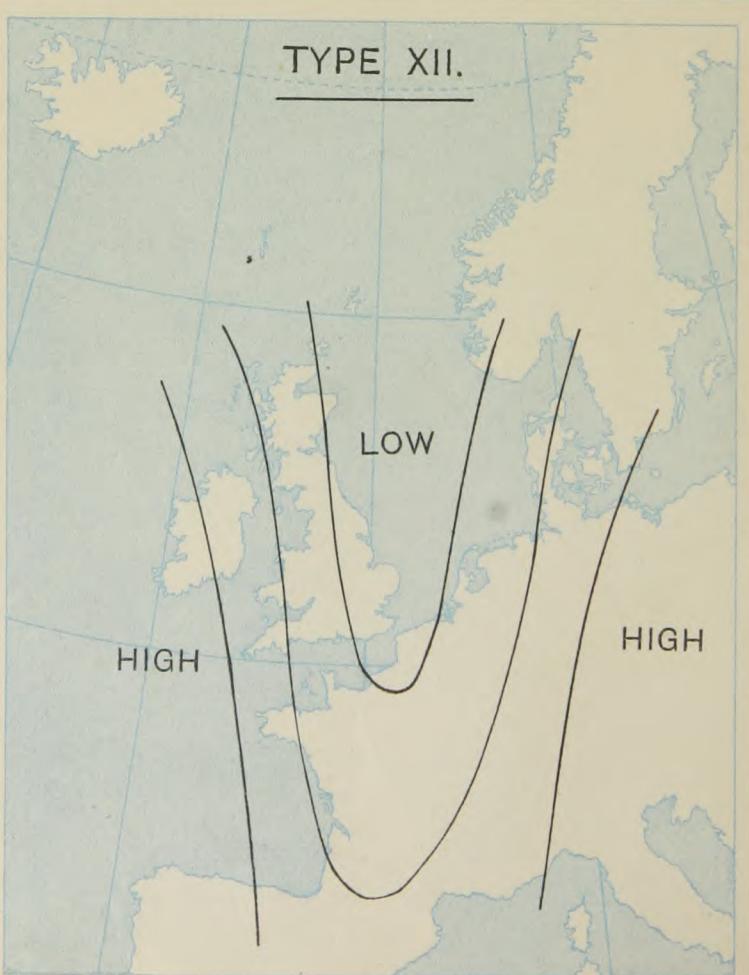
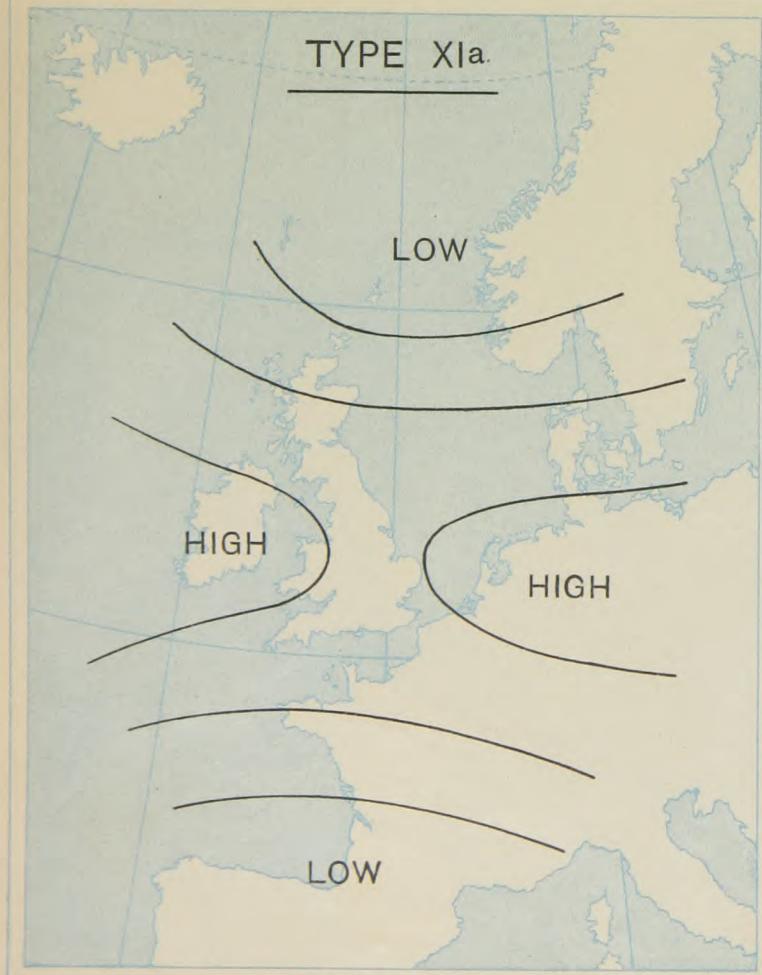
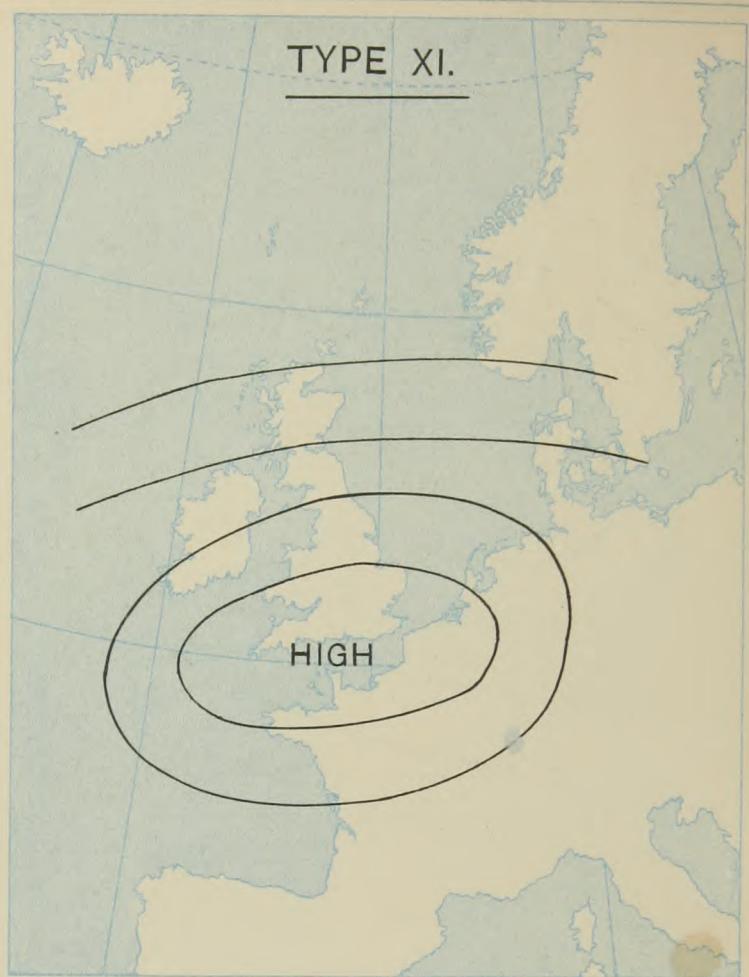
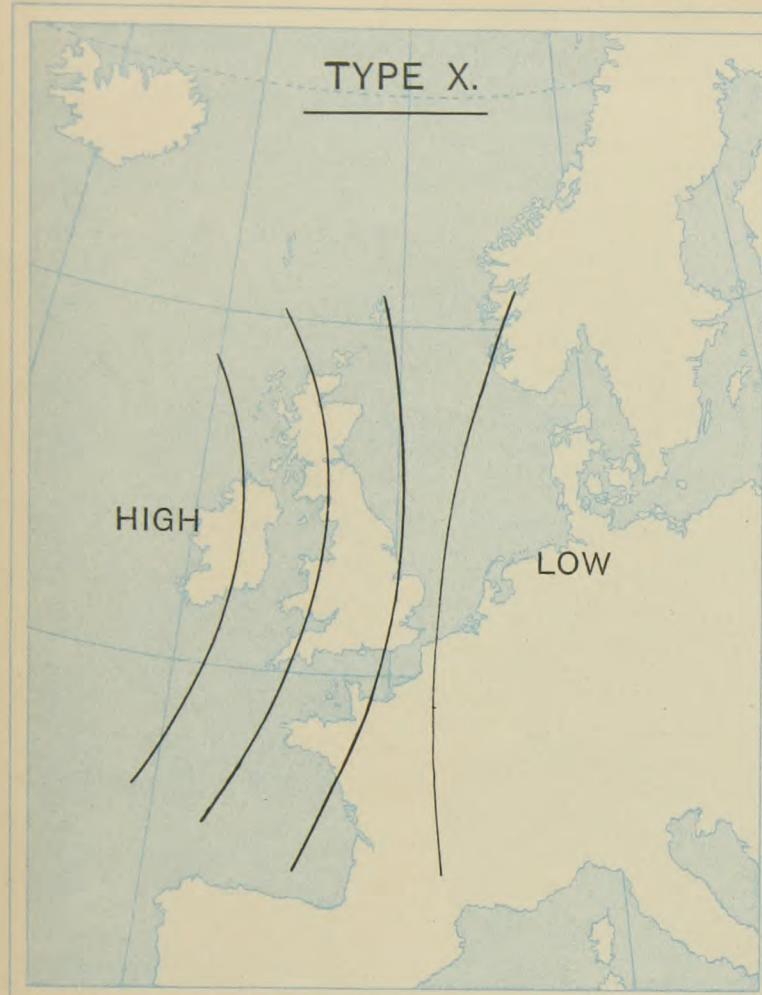












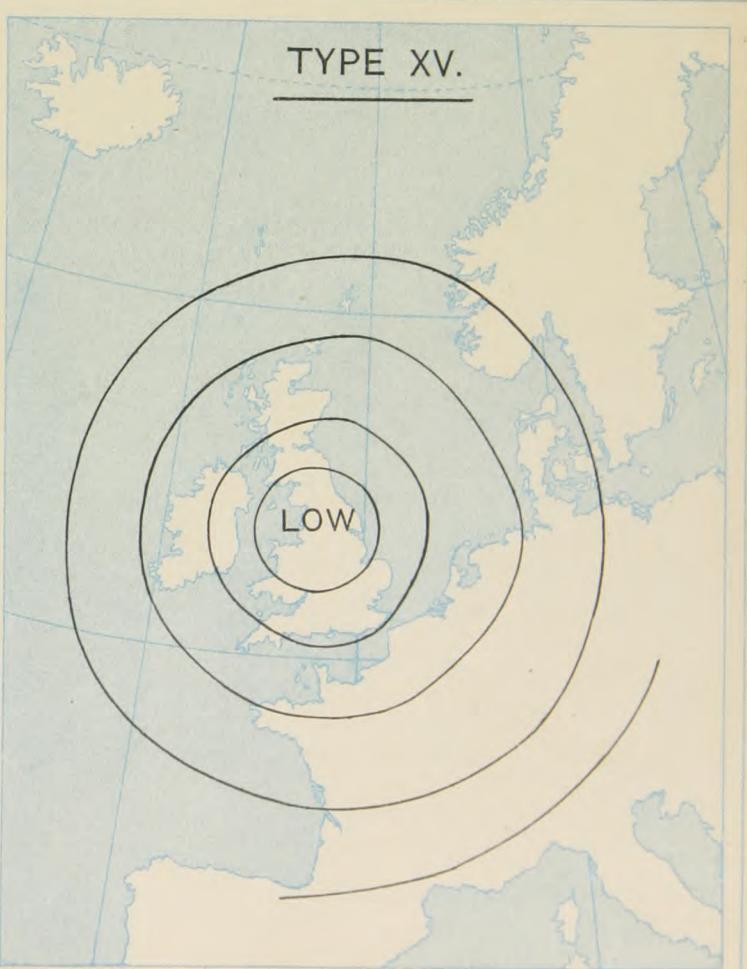
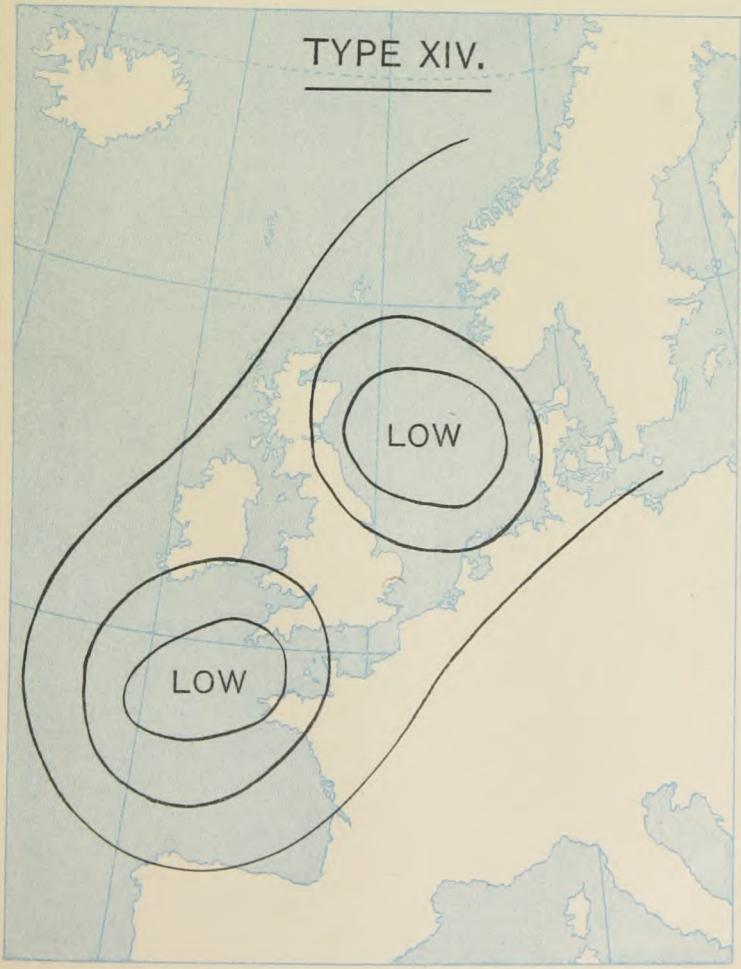
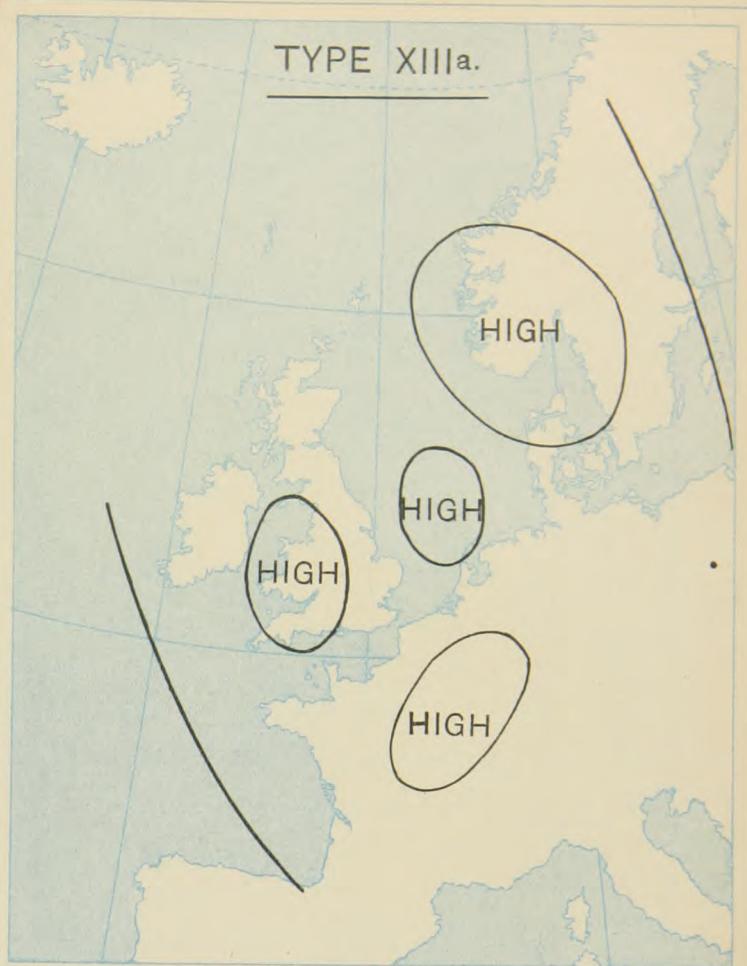
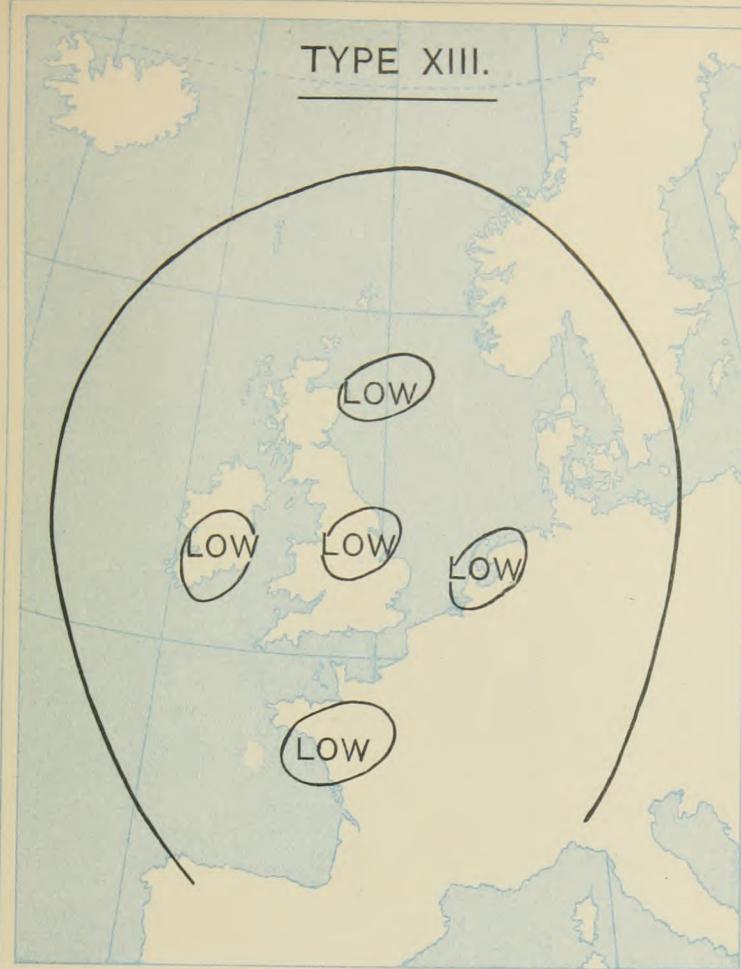


TABLE I.—JANUARY.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
1	VIIc	VIA	III or V	VIIc or VIIA	V or VI	IV	I	XI	V	XI	VII	VIA	II or I	IX
2	II	VIA	III or XV	VIIA or VI	VI	II	X	II	V	I	VII	IV	I	X
3	II	VIA	I or XV	XIA	II	II	VIIc	I	V	XI or IV	VIIb	II	II or IV	X or IX
4	II or IV	VIA	I	XIA	VI	XI or IV	VIIc	I or IA	V	II	III or XV	V	I	IA
5	I	III	II	XIA	II	XI or V	VIIc	III	V	XV	IV	II	I or IV	XIA
6	I	XV	I or II	II	II	XI	XII	IV	V	I	III	II	XII	V
7	I	IV	II	IV	I	VI	XII or VA	IXA	VIA	IV	III or VII	II	II	XV
8	II or VIIA	XIV	II	XV	I	V	V	IV	VIA	V	III or IV	I	XV	X
9	II	IV or VII	II	XV	X or IA	V	II	VII	VIIb	VIIc	I or XV	I or IV	X or XV	I
10	I	III	II	XII	II or IV	VIIb	II or IA	II	VII	VIIb	IV	I or II	IA or XIA	I
11	II	II	I or IA	VI	II	II	III	VIA	VIIb	VIIc	III	I	XII	I
12	I or II	II or VA	II	VI	I	III	X	VIA	VIIc	VI	II or IV	XII	IV	
13	I	II or VA	II	VIA	IV	IV	IX	VA	VII	IXB	III or VII	I	XV	I
14	VIA	II	VIA	VIA	III	V	XIA	VA	VII or XIV	VIIb	V	IV or I	IXA	IV
15	VIA	VIA	II	V	II	IV or II	IXB	VII or VIIb	VIIb	VIIb	III	II	XIA or XIIIa	XV
16	VIA	VIA	II	VIA	II	VIA	VIIb	XIA	VIIb	VII	IXB	I	XIA	XV
17	VII or VIIb	II or VA	IXB	VIA	V	II	VI	VIIb	XIV or VII	VIIA	X	IV or V	VIII	IV or V
18	XIA or VIIc	IV or V	XI	II	VIA	II	XI	VIIA	IV	IXB	X	V	VIIc	XIV
19	VIIc	X	VIA	IV or VIA	XIA	I	XI	VIIb	IV or XV	VIIc	X	V	VIIc	IV
20	VIA	I	XI or VIA	I	XIA	I	VIIb	VIIA	XV	VI or VIIb	II or VA	II	VIIc	VIA
21	VIIb	X	XIA	VI	VI	I or X	VIIA	VIIA	XV	IV or VIIb	III	II	VIIc	VII
22	VI	IXB	XIA	XIA	VI	XIV	IV	VIIA	VIIA	VIIc	X or IXA	II	VIIb	VII
23	VIA	XI	VI	VI	VI	IV	XIA or VIII	VIIA	VIIA	VIIA	IXA	IV or V	VIIA	VII
24	V	XI	VI	VI	VII	XV	VI	VII	VII	VIA	I or IV	II	VIIA or VIIb	V
25	I or II	II or VIIA	XIA	II	VIA	XV	II	XIII	XV	V	IXB	II	VIIb	V
26	IXB	I or II	X	II	VIA	IV	II	VIII	IXB or IV	II	IV	II	VIIb	V
27	XI or II	II	Ia	II	VIA	XIII	II	VIIIb	VIIb or VIA	I or IV	VIIb	IV	VIIb	V or VIA
28	I	II	II	II or I	VI	XV	IV or XI	VIIb	VIIb	II	IXB	VIA	VIIb	V or VIA
29	I	II or III	I	X	II	XV	VIIc	VIIb	VIIb	II	IXB or X	VIA	VIIa	V or VIA
30	I	I	X	Ia	X	I	V	VIIa or VIIa	VIIa	VIIa	II or V	III	VIIa	V or VIA
31	I	I or IV	X	I	VIIA	VIIA or VIIA	VIIA	VIIA	VIIA	V	VIIA	III	VIIA	VIA

FEBRUARY.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
1	I	II	IXB	XI	I	I	Va	VIIb	VIIa	Va	V	II	VI	XIA orien
2	I	II or I	XI	X	Ia	Va	VIIb	IX	IV	V	Va	XII	XIA or	Va or VIA
3	I	I	VI	II	Ia	XII	VIIb	IX	II	V	V	V	XIA	VIA
4	II	X	XIA	X	I	XIII or	XII or	VIIb	II	V	V or VIA	Va	XIA	Va
5	II	XIA orien	XIA	XI or IA	I	II	VIIb	VIIb	VIIb	V	VIA	VIIb	XII	XIA orien
6	II	XIA	VI	XI	I	I	VIIb	VIIb	VIIb	V	VIA	VIIa	VIIb	Va
7	II	XIA orien	VIA	XI	XI	II	X	VIIb	VIIb	Va	VIIb	VIIb	VIIb	IV
8	V	XIA	Ia	VIA	I	VI	I	IXB	VIIb	II	Va	III	XII or	IV or V
9	VI	Va	Va	I	Va	I	VI	VII	Va	IV orien	VII	III	VIIb	Va
10	II	VII or IV	Va	Va	II	XV	Va	VII	VII	Va	VII	VII	VIIb	II
11	I or X	XV	XII	II	VIII	Va	XII	VIIa	VIIa	Va	VII	XIV	X	II
12	I or X	XII	XIV	VI	VIIA	IV	XIIA or	VIIA	VIIb	Va	XIV	IV	VIIb	IV
13	Ia or II	X or VIA	X	V	VIIIB	Va	XI	XV	XI	Va	VIIa	II	VIIb	XII
14	Ia	XIA or VA	XIA	Va	VIIIB	Va	VI	IXA	VIIb	Va	XV	III	VIIb	XIA
15	II	Va	V or II	II	I	Va	VI	VII	XIA	V	IVa	III	VIIb	VI
16	II	Va	Ia	I	IV	XI	II	VIIA	VIIc	II	IVa	III	IV	VI
17	II	XIV or V	I	IV	XI	Va	I	VIIA	VIIA	IV	VII	I	VII	VI
18	II	V	II	I	VI	Va	II	VIIA	VIIA	VII	Va	IV	VII	VI
19	I	XII or VIA	II	I	VI	VIIA	I	VIIA	VIIA	XII	Va	IV	VII	XIA
20	X or XIV	XII	XII	III	I	VIIA	VIIA	VIIA	VIIA	III	XII	I	VIIb	Va
21	IX	IV	I	II	VIIA	III	II	XIIa orien	VIIA	VII	III	XIIa	XII	IV
22	VIIIA	IV	I or IV	III	VI	V	II	VII	VIIb	XIV	XIV	XII	VIIb or XIIa	Va or II
23	VIIIA	VIIA or IV	X	III or I	VIIc	V	V	V	VII	VII or III	I	VIIA	II	IV
24	VIIb	XIA	I	I	VIIc	III	I	II	V	XIA	I	VIIA	II	IV
25	II or VA	III or VA	I	I	VIIc	VX	V	V	VIIA	XIIa	I	VIIA	IV	I, X, or XII
26	Va	III	XI	I	VIIIA	XV	I	IV	V	Va	Va	IXA	I	IV
27	XV or III	XIV	XI	VIIIB	III	XI	V	Va	IV	Va	Va	XIIb	I	I
28	XV or III	I	VIIIB	III	XI	VIIA orien	V	Va	V	Va	Va	XIIb	II	XIV
29	..	..	..	..	..	..	..	..	..	..	..	..	..	..

** The roman figures refer to the type of the morning weather chart on the corresponding date.

TABLE I.—*continued.* MARCH.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
1	XV	I	XI	XV	IX	V A	I	V	VIA	V A	I	XIA	IV	IX
2	IX	I	XI	XIV	XIV	VIA or VII	II	V or VA	V A	I	I	VII B	VII C	XIA or IXA
3	IXB	XI	VII C	XV	VII C or VIA	VII C	III	V	V A	I	VII C	VII C	VII C	VII C
4	I A or XIA	II	VII C	XV or XIV	XIV	VII B	IA	V	V	I	VII B	VII B	VII B	VII C
5	XII or VA	V	VIA	XIII	IA	VII B	IA or IV	III	V	IV	V A	X	VII A	VII A
6	VA	II	XII	XV	VII A or	VII B	IA or XII	III	V	III	I	X	VII A	VII A
7	V A	II	II	I or XV	XV	V A or VIA	IX B	III or I	V	I	X	IX	VII A	VII B
8	IV	II	I	III	XV	VIA	IA or XI	IV or V	IA	IX A	IX	VII C	VIII	VII B
9	V	I	I	XV	VII A	V A or VIA	XII	VII	V	XIII	I A	IV	VI	VI
10	III	IV	I	XV	VIII	VII A	XV	VII A	II	XIV	I A	VII	VII	VI
11	III or	VII	X	I	VIII	XII	XII or	XIII	IV	IV	I	VII A or VIII	VII A	V A or V
12	XV or	III	XV	XI	XIII	IX A	IX A	XIV	XI	V	V A or	VIII	XV	V A or XII
13	XV	IA	II	X or IV	X	I or IA	XIV	V A or II	V	VIA	I	VIII	II	VIII B
14	VII or VA	XIV or I	I	XIII or XIII A	X	X	X	V A	V	VIA	I	VII A	XIV	VII C
15	VII	IV	II	XI	XV or	XII A or	XII A	I	XII or	XIV	I	VII A	IX	VII B
16	V A	II	V A	XII	XII or	IX A	IX A or II	XIV	III	XIV	I	VII B or XIV	VI	VII B
17	V A	II	III	XIII A or XIII	XII	IV A	II	VII A	VII	IV	IA	VII B	II	VII B
18	V A	III or	III	XII A	VII	VII A	X	VII A	VII	VII	X	VII A	I	VI
19	III	X	I	VII C	VII B	X	VII A	III	XV	VII	XIA	VII A	II	V
20	VII	X or IX B	IA	VII C	VII	IA or XI	VII B	III	XV	VII	XIA	VII A	XV	IV or I
21	VII B	IX	IV	VII A	VII	IA	VII B	VII	VII	XV	VII A	VII A	X	XI
22	VII B	IX	I or II	VII	VII or	IA or VIII B	VII B	XV	V	XIV	XIA	VII A	X	XI
23	VIA	IX	IA or X	V A or XII	XII or	IA or XIII B	VIII	IV A	XV	VII	VII	XIII	II	XI
24	XV	IX A	XI	XII A	XII	IV	IA or VII B	IX A	IV	IV	VII	XII I	IA	XI
25	VII or	IX A	XI	XII	XV	VII B	VII B	IX	V	VI or XI	VII A	IV	IA	IX
26	VII	XII A	XI	XII A or XIII	I or XV	VII B	IX A	V A or V	VI	VII	XIA	XV	X	IX
27	VA	IX	VI	VII A	IV	VII A	VII A	VII A	II	VII B	VII A	XV	II	VII A
28	IV	IX B	XI	V A or VI A	XIV	IX B or XI	VII A	VII A	II	VII	IV	XIV	I A	XI
29	V	X	VII A	V A or VI A	VII	VII B	VII B	VII B	II or I	VII A	VII A	I	XV	XV
30	V	IX B	XII A	V A	XV	VII C	VII C	VII C	XII A	VII C	VII C	II	XV or III	V A
31	I	X or I	VII A	I or II	V	XIV	VII C or	VII A	XII A	VII C	VII C	II	XV	XV

APRIL.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
1	IV	IX B	VII C	I	I or IX A	VII C	VII	X	I	IV A	I	XI	I	XV
2	XII	IX B	VII B	II	IX B	VII C	V	IV	VII C	IV	V	VII B	XIII or	II
3	IV A	IX B	VII B	II	IX B	XIII	X	II	VII A	XIV	IV	XIA	XV	VII A
4	II or V	VIA	VII A	III	VI or VII A	VIII	X	II	VII A	XIV	I or III	XIA or XII	XI or X	VII A
5	I	VIA	VII C	X	VI	VIII or IX A	IX	II	VII A	VII	XIII or	X	XIA	XIA
6	X	XII A	V A	VIII B	XII A	XIV	IX	II	VIII	III	V A	IX B	XII	III
7	XV or I	XII A or	III	VIII B	XII A	XIV	IX	I	IX	III	V A	XII A	X	I or III
8	I	XII A	XV	XII A	XII A	IX	IX	IX	I	XII A	XII A	XII A	XII or XV	XII A
9	II or VI A	IX B	XV	IX	XII	XII	X	IX	IX	XII A	I	XII A	XII or XV	XII A
10	IV or VI A	IX B	IX	X or XII A	XI	XI	IX	IA	IA	VII A	I	XII A or IA	XII or I	VII A
11	XII A or	XII A	VIII	VII C	V A	II	IX B	I	IA	XII	I	XII A or I	XII or I	VII A
12	IV A	VII B	VII A	VII C	IA	V	XII B or VII A	IX B	XII A	IV	XII A	XII or X	XII or X	XII or X
13	VII B	VA	VII A	VII C	IA	XIV or VII A	XII	XII B	XII A	V	XII A	I	XII or X	XII or X
14	VII B	IA	VII A	VII C	III	XIV	XII	XII B	XII A	V	XII A	I	XII or X	XII or X
15	VII B	IX B	IX	VIII	XI	XIV	II	VIII B	V A	XII A	I	XII or X	XII or X	XII or X
16	VII B	XII A	IX	VIII	V	XIV	XII A	VI	V A	XII A	IA	IV or I	XII A	XII A
17	VII C	XII A	X	VIII	VA	XIV	IV	VI	V A	XII A	XII A	XII or VA	IV or X	XII A
18	VII C	IX	X	IX	VA	VII	VII	VII B	V A	XII B	XII B	XII B	XII or X	XII C
19	IX or	IX	IV	IX	IV	II	VII	VII B	XV	VII C	XII A	XII B	XII B	XII C
20	IX	IV	IV	X	VA	I	II	VII C	IV	VI	XII A	XV	I	X
21	X	II	VA	I	VII C	I	II	VII C	V	VI	XII B or XIII	I or X	XV	XV
22	X	I	IA	II	VII	I	II	VII C	XII A	VI	XII A	XII A	XII A	XII A
23	I	X	II	XII	XII	VII	IV	III	VII C	XII A	VII A	VII B	XII C	XII C
24	I	I	IA	XII	XII	VII	IV	XII A	VII A	XII A	VII A	XII A	XII B	XII C
25	IV	XII	X	XII	XII	XII	XII	IV	XII A	XII A	VII A	XII B	XII C	XII C
26	IV	XII	XII A	XII	XII	XII	XII	II	VII A	VII A	XII A	XII B	XII B	XII C
27	V	XII A	XII A	VII	XII	XII	XII	IV	III	VII A	XII A	XII B	XII B	XII C
28	VA	XII or	I	VII	IV A	XII A	IV	IV	XII A	VII A	XII A	VII B	XII A	VII A
29	III	III	XIV	I	IV A	III	I	XII A	XII A	VII	XII A	XII A or VIII A	I	VII A or IX
30	VII	XIV	I	IV A	I	I	XII A	XII A	XII A	VII	XII A	XII A or VIII A	XII A	VII A or VIII A

* * The roman figures refer to the type of the morning weather chart on the corresponding date. Typical charts are given between pp. 150 and 151.

TABLE I.—continued. MAY.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
1	XV	I	IV	VIIA	X	IA	IVA	XI	XIA	IXB	VI	VIII	IA, XIA	VIII
2	XIV	VIA	VII	VIIA	XI	XIA	VA	III	XIA, IV	XI	IVA	VIII	VIIIb	VIIb
3	I	IVA	XV or II	XIA or VI	XIA	VA	XIA	XII	XIA	XIA	XV, XIV	VIIIb	VIIb	VIIb
4	XIA	XII	II	VIIA	VI	I	VA	XIA	XV	VIIA	VIIb	XIA	VIIIb	VIIb
5	VIIIb	VIA	VIIb	VII	VIIb	XII	XIA	XIA	XIII	VII	VIIb	VIII	IX	VIII
6	VIIc	VIA	VII	VII	VIIb	III	I	VII	XIII	XIA, III	XIIIa	XIV	VIIIa	XII
7	VIIc	VI	VII	III	VIIb	III	XIA	VIA	VII	XIII	XI	XIV	VIII	IV
8	I	XIA	VIA	IVA	VIIA	I	VIIc	II	VIIA	XV	XIA	XV	VIII	IXa
9	IA	XV	VIA	III	VIIA	I	VI	II	VII	I or X	XIA	XIV	VIIb	IV
10	IV	XII	VIA	IV	IXB	XV	VIIA	IV	VII	IV	VIIb	IV	VIIb	XIII
11	IA	VIA	VIA	IV	IA	VIIc	VIIA	VII	VII	XII	IVA	VIIb	XIA	XIA
12	IA	VIIb	VII or	XIV	I	VIIc	VIII	XIV	VII, VIIA	XII	X	XIII, XV	VIIA	XII or XV
13	X	VIIc	VII	IVA	IA, IXB	XV	VIII	IV	VIII	IA	VIII,	IV	VIA	XV or XIV
14	IA	XII	XIA	VII	IA	VIIb	XV	IV	IX	VIIIb	X, IXA	IV	III	Va
15	IXB	XIA or XII	XIV	XV	IA	VIIIA	XIV	VA	XIA	VIIIb	VIII, XII	XII, XV	X	VI
16	IA or VIIIb	XV	X	IV	XIA	VIII	XIA	XIV	IA	VIIc	XV	II	IXb	VI
17	VIIb	XV	X	II	XIA	VIII	XIA	IA	XIII	XIA	XIV	IV	VIIIA	VI or VIIc
18	IX	IXA	X	II	XV, II	VIIb	XIA	II	XV, I	XIA	VIIIa	IV	VIIA	XIA
19	IXA	IXA	VIIc	II	VI	VIIb	X	VIA	I	IA	VIIA	VIIA	VIIb	XIA or IXb
20	IXA, X	IXA	VIIIA	IA	VIA	VIIb	X	XIA, VII	II	IA	XIA	VIIA	VIIc	VI
21	IXA or X	IXA	VIII	VII	VIIc	XIA	XIA	XIV	VIA	II	XIA	VIIA	VIIc	VIIA
22	X	VIIA	XIA	XII	VA	XIA	XIA	XIII	II	XIA	VIIc	I	VIIA	VIII
23	IA	VII	VIIA	XI	VA	IXA	VA	IXA	II	XII	IXA	IV	VIIA	III
24	IA	VII	VIIA	XIA	XI	IXA	VA	X	XI	X	VIIA	VIIA	VIIA	IXA or I
25	IV	VII	VIIA	VA	VII	IXB	VA	IXB	VI	XIA	VIIA	VIIA	VIIA	I
26	VIIA	VII	X	VA	XV	IA	XIA	IXB	XIA	XIIIa	VIIA	IV	VII	X
27	VIIc	VA	X	II	VII	X	XIA	X	XV	XIIIA	VIIIB	VA	XIV	VIIIB
28	VIIc	VA	VIIIA	VIIb	XIA	XIA	VIIIB	IV	IVa	IA	IXA	I	IXA	VIIIB
29	VIIA	IA	XIA	VIIc	VA	II	VIIIA	I	VA	XIA	X	XIA	IXA	VIIIB
30	VIIA	IA	IVA	VIII	XI	II	VIIIA	XII	VII	XIA	X	XIA	I	VIIIB
31	IV	I	VII	VIIb	VIIc	II	VIIIA	VIIA	VA	IA	XI or IV	VIIA	VIIA	VIIIB

JUNE.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
1	XIV	I	VII, III	VII	XIV	XIV or V	XIA	VIIb	VI	I	Ia or XIa	III	Va	VIIIb
2	IV or V	X	VII	VIIb	XIA	V	XIA	XIV	V	X	IV	I	Va	VIIIb
3	V	X	XV	VIIb	IA	II	VIIA	XIV	V	I	III	I	II, XI	VIIIb
4	IV	X	IVA	XIA	VIII	XIII	XIA	XIV	VIA	I	IV	XV	XIA	VIIIb
5	IXA	IXB	VII	I	X	IX	XIA	XIV or XV	VIIb	I	II	XV	XIA	XIA
6	IXA	IXB, XI	III	X	I	IX	IXB or ,VIIb	XV	II	I	IV	XV	VIIb	XIA
7	IX	XIA	XIV	IA	VIII or I	VIIIA	IXB	XIV or XIII	II	I	VI	XV	VIIb	Ia
8	IX	IXB	VIA	I	XIA	VIII	IXA	XIV	III	IX	VIA	XIV	VIIb	VIIa or IXb
9	IX	IXB	VIA	I	X	VIIc	X	XIV	XI	IXa or IX	VIA	XIV or X	XIA	XIA or XV
10	VIII or IX	IXB, X	VIIA	IV or XI	X or XIa	XIA	X	VIIA	III	XIA	VIIIb	I	XIA or VIIc	IXa
11	VIII	IXB	VIA	Va or VI	X	XIA	IX	VIII	IA	XIA	IXB	I	VIIc	I or X
12	VIIb	X	VIIA	II	X	XIA	IX or X	XIII or IXa	IA or I	XIA	IXB	X	VIIc	IV
13	VIIb	X or IX	III	Va	X	I	IX	IV	IV	XIA	IX	X	VIIb	Ia
14	VIIb	IX	II or Va	XII	X	I	IX	IV or IVa	Vor VIIc	XIA or XIIIa	IX	X	XIA or VIA	I or Ia
15	VII	IXB	IX	III	V	VIIIA	IV	IXB	IVa	VI	IXB	X	VII	I
16	VIIb	VIIIA, IX	III or I	III or XII	X	IXB	VII	VII	XIA	X	XIIIA	IX	V	I
17	VIIb	VIII	IV	IXA	X	IXB	VII	IV	VII	XIIIA	IVa	IXB	XIA	X
18	VII or IVa	VIIb	IV	XIII	I	IXB	VII	VII	IV or V	VII	IVa	XIA	Va	IV
19	V	XIA	II	XIA	I	VIIIB	VII	VIA	XIV	V	IX	X	III or XV	XV
20	VIA	IV	II	X	III	VIIIB	Ia or III	III	I	Va	VIIIB	I	XIII	XIA or I
21	VIA	I or XI	I	IV	VIA	VII	VII	V	IV	Va	XIA	IV	XV	I
22	IV	I	IV or II	XIA	VII	VII	VII	VIIA	VIA	Va	XIA	IV	IV	I
23	IX or IXb	IVa	I	XIA	VII	III	XV	VIIA	VII	Va	VIIIA	VIIb	II	X or I
24	VIIIA or VIIc	IV or Va	IV	XIA	XV	XIV or	IVa	XIV	Va	VIIA	VIII	VIIb	XV	III
25	VIIIA or VIIc	IV	Ia	Ia	XV or XIV	XIV	XV	VIIA	I	IA	VIII	XIV or XV	XII	X
26	XV	V	II	X or IXb	XV	I	XV or I	IA	IV	IA	XIV or XV	II	X	X
27	XIV	V	II	IXB	IXA or XV or IA	I	I	VII	I	XIA	XIV or XV	I	VIIIA	I
28	I	XII	II	IXB	IVA	XIV or III	II	XV	IV or XI	IA	VII or XV	I	XIA	I
29	VII	IXA	I	IXB	VII or VII	II	II	XIV or XV	I	IV	I	XIV or IV	IXA	VIIb
30	VIII	I	XIV or IX	VIIIA	N	I	II	XIV or IA	XII	V	I	II	IXB	XIA

** The roman figures refer to the type of the morning weather chart on the corresponding date. Typical charts are given between pp. 150 and 151.

TABLE I.—continued. JULY.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
1	IXA	IV	X	VIIIA	X	I	I	I	VIIIB or IX	XIA	I	VII or IV	X	XIA
2	VIA	XIA	I	VIIIB	IV	I	I	I or X	X	VIIIB	IV	XIV	IXB	IX
3	II	XIA	IVA	X	II	I	IV	IXA	X	XII	II	XIA	IXB	IXB
4	IV	XIA	IVA	IX	I	I	XI	IX	X	IV	VIIIB	XII	IX	IX
5	IXA	XIA	III	IX	IV	IV	XI	IX	I	XIV or XV	I	I	X	IA
6	I	XIA or I	III	IX	III	I	XI	XIA	X	XIV	VIIA	IV	IXB	IA
7	IV or IA	XIA	I	XIV	I or XI	X	XIA	XIA	X	IA or VA	XV	XV	VIII	IA or IV
8	XIA	I	III	IV	I	X	XIA	VIIA or II	I	IV	I	I	VIII	IV
9	V	IV	III	II	IV	X	VIIIIB	V	IV	VIIIB	IA	I	IXA	XIII
10	IA	XIA	I or III	VII	I	X	VIIIIB	VA	I	VIIIB or VI	IA	IA or I	IXA or X	XII
11	IV	X	IA	XIV	I	IX	VIIIB or IXB	VIIIA	VA	VIIIB	IA	IA	IXB	XV
12	IV	I	IA	XIV	IV	VIIIB or	VIIIA	VA	IV	VIIA	I	IV or II	VIA	XV
13	I	IA	IV	IXA	I or II	X	IX	XIA	XIV	V	XIA	I	VIA	III
14	IV	I	XIIIA	I	II	IX	IX	XIA	XIV	VII	IA or II	I	VIA or VA	VIA
15	III or II	I	VIIIB	IV	II	VIII	IX	XIA	I	IA	I	I	IVA or VA	VIA
16	III	I	VIIIB	V	II	VIII	IA	VIIIA	IV	XV or IA	IV	IA	III	VII
17	I	II	IX or X	XV	I	VIII	IA	VIIIA or	IA	XV	XV	X	IA or II	VIA
18	I	V	X	XV or X	II	IXA	III	IXA	IA or II	IA	I	I	V	III
19	I	I	VIIIB	IV or X	IA	I	II	IX	X	VIIA or XII	VI	IA	IA or XV	VI or III
20	I	I	VIIIB	X	IV	IV	VIIA or VI	IX or X	X	XV	II	XIA	I	XIII
21	I	IV	VIIIB	X	II	III	VIIA	IXA	IVA	XV	XIA	IXB	I	XIV or IV
22	IV	IV	IVA or	XI	IV	III	XIA	VIIA	XIV	I	III	VIIIIB	VIII	XIV or
23	I	-II	IVA	VIIA	VIIA	III	I	XIA	IVA or X	I	III	XIIIA	VIIIIB or XIIIA	XV
24	I	XIA	IVA or	VII	VIIA	III	IV	XIIIA	VIIA	VIIA or IX	I	VIIA or IX	XIIIA	III
25	I	XI	I or IV	VIIA	VIIA	XV	XV	XII	VII	VIIIA or IX	I	IV	XIA	IA
26	V	VIA	VII	XIA	XV	XV	XV or I	VIIA	VII	VIIA or IX	V	XIA	V	XV
27	IV	XIV	III	XI	IV	VII	VII	XIV	IX	I	IV	XIA	V	IXA
28	I	IV	II	XIA	IV	VIIA	VIIA	VIIA	IX	I	III	X	II	I
29	IV	III or V	IV	XIIIA	IV	III	VIIA	VIIIB	III	I or X	II	IV or I	XIII	IV
30	III	VIIIB	I	II	I	V	VIIA	XIIA	XIIA	I	I	IA	I or X	VIIIB
31	I	VIA	I	I	III	VIIA	XIIA	XIIA	XIIA	V	IV	IA	X	VIA

AUGUST.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
1	XIc	VIA	I	IA	VIIIA	I	VII	XV	VIIIB or IXB	VIIA	IVA	IV or XI	IXA	VII
2	IVA	VIA	IVA	VIIIB	IXA	XV	VIA	I	VIIIB or IXB	VII	VIIA	VIIA	VIIA	VIII, VIIA
3	VII	VA	IV	VIIIB	IXB	VII	VA	XIII	VIIIB	XV	XV	IXA or XV	XV	VIIA
4	VII	II	VII	IA	XI	VII	V	VIIA	IX	XV	I	X	XIII	XIV, III
5	III or XIII	II	III	X	VI	I	VIA	XV	IX	XII	VIIA or V	X or VIIIIB	XIIIA	VII
6	II	IV	III	IXA	XIA	IV	IV	XIV	X	IV	XV	X	VII	XV
7	IV or V	VII	I	X	XIA	IV	XI	XV	X	III	IVA	XKB	VII	IV
8	XII or I	I or III	III	X	XI	XIII	VI	XIV or	I	VIA	IV	XI	VII	III
9	VIA	I	III	IA	XIA	IX	XIA or VIA	I	I	V	IV	XI	XV	I
10	III	IV	III	II	IXB	IX	XIA	XII	I	V	IV	XIIIA	XV	XI
11	I	I	IV	I	IA	VII	VIIIA	IV	XIII	XI	V	VIA	VIA	VIIIIB, VIA
12	I	IV	IV	I	IA	IV	VIIA or	VIIIA	XIV	IV or X	VIIIB	VIIA	VIIA	XIA
13	XIA	VIA	IV	I	X	I	VIIA or	VIIIA	X	IV or I	VIIIB	VIIA	VIIA	IXB
14	XI	V	III	X	I	VII	VIIA or	VIIIA	XV	I	VIIIB	XIIII	VIIA	VI
15	IVA	VA	I or III	IXB	V	VII	X	XV	IV	VIIIB	I	XV	XII	IA
16	VIII	II	IV	X	XII	IV	X	IV	V	VIIA	I	XV	XII	XIA
17	IXB	I	III	IX	XIV or	IV	XI	IV or V	IX	IXB	X	X or XV	XIV or VA	II
18	VA	X	III	X	XV	IV	XIIA or IV	V	XIIA	XIIA	X	I	XIV or III	I
19	VA	I	III or I	VIIIA	VA	III	XIV	XIIA	XIIA	XIIA	X	I or X	XIIA	II
20	XIV	IV	I	VIIIA	V	IV	XIIII	XIIII	XIIII	XIIII	X	XIIA	XIIA	II
21	IV	II	I	XIV	I or XII	XII	XIIII	XIIII	XIIII	XIIII	V	I	VIA	VI
22	VIA	V	I	XIII	I	I	XIV or IXA	XIIII	XIIII	XIIII	V	IA	XIIII	VII
23	XV	IVA	I	III	V	IV	VII	XIIII	XIIII	XIIII	V	XIIII	XIIII	IA
24	IV	IV	I	IV	V	VII	IV	XIV	XIIII	XIIII	VIIIB	IV or V	XV	IV
25	IV	XV	II	XV	I	V	III	IV	XIIII	XIIII	XIIII	IV or V	V	V
26	XV	IV	I	IV	I	XV	V	XIV	XIIA	XIIA	XIIA	XIIA	XIIA	XIIA or XV
27	XV	I	II	III	I	XV	V	XIV	XIIA	XIIA	XIIA	XIIA	XIIA	XIIA or IV
28	XV	XI	IV	III	XI	VIA	V	XIV	XIIA	XIIA	XIIA	XIIA	XIIA	XIIA or XII
29	XV	VI	III or VA	III	XIa or II	XV	II	VII	XIIA	XIIA	XIIA	XIIA	XIIA	XIIA or X
30	X	VI	II	I	I	XV	IA	XV	XIIA	XIIA	XIIA	XIIA	XIIA	XIIA or IV
31	X	VIA	XIA or XII	IV	I or X	I	XI	IV	XIIA	XIIA	XIIA	XIIA	XIIA	I

* The roman figures refer to the type of the morning weather chart on the corresponding date. Typical charts are given between pp. 150 and 151.

TABLE I.—continued. SEPTEMBER.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
1	I	VIA	Ia	XV	I	I	VA or VI	I	IXA	VIIIB or VII	XIV	V	V	I
2	I	VIA	XV	I	I or X	IV or I	VA or VI	I	VIIA	VIIIB	X or I	VIA	I	I
3	I	XII	XV or IV	IVa	XI	I	XIA	IV	VIIc or VIII	VIIIB	I or X	XV or VII	IV	I
4	IV or I	XIA	II or IV	IXA	II	IXA or X	VIIIB	II	VIIc	VIII	X	XV	VIA	IVA
5	V	IV	V	IV or IA	I	X	XIA	I	VIII	VIIA	IV	I	VIIA	IVA
6	V	I	VA	II	XIV	X	IA	I	VIIA	VI	IV	VIIIB	XIA	IV
7	V	XI	VI	V	XV or XII	IXB	XIA or VIIIIB	I	VIIIA	XIA	VI	XIA	XIA	VIA
8	II or V	XIA	VIIIB	V	X	IXB	VIIIB or VIIA	I	VIIIB	VII	VIA	XIA or VIIIB	XIA	III or XII
9	V	IA	VIIIB	XV	XIA	VIIIC	XIA	X	IA	VIIA	VIIIB	XIA	I	III
10	III	X or IXB	VI	I	XIA	VIIIB	VIIA or IXB	X	IXB or X	XII	VI or VIIIB	XIA	XIA	XV
11	II	XI	VI	I or XII	XIA or IXA	IX	VIIA	X	II	V	VIIIB	IV	XIA	I
12	I	VIA	VIA	I or X	XIA or IXA	IXB	XIA	VIIIB	II	III	XIA	I	I	I
13	II	VIIc	XIA	IV	IX	X	XIA	VIIIB	XV	I	V	I	IV	I
14	XIA	VA	IA	V	IXB	IXA	XIA or X	VIIIB or XV	V	VIIA	VA	I or X	I	IV
15	XI or IXB	VA	IA or X	VA	IXB	IX	I or X	VII	II	II	IA	II	IV	IV
16	X	XIV or I	IA	IV	VIIIC	IXB	IX	VIIIB	VIIA	II	II	I	II	VII
17	XIA	IXA	IA	V	VIIIC	IXB	VIIIB	I	XIV	XII	IVA	XII	II	VII
18	XIA	VIIc	XI	VIA	VIIIC	VII	VIIIB or IA	X	VIIIB	XII	XIA	II	Va	III or V
19	XIA	VIIc	XI	VIA	XI	VIIA	XIA	II	VIIIB	IVA	X	VIIIB or VIIIIB	I or X	Va
20	XIA	VIIc	XI	VIIIB	XII	VIIA or I	XI	III	VIIIB	XV	XII	XII	X	XIV
21	VIIc	IX	X	XIII	XIV	VIIIB	VIIA or IA	IV	VIIIB	X	VIIIB	X	I	IV
22	VIIb	IXB	VIIIB	VIIIB	VIIIB	VIIIB	VIIA	VIIIB	IVA	VIIIB	VIIIB	VIIA	II	III or Va
23	VIIA	IXB	VI	VII	VIIA	VIIA	VIIA	VIIA	VIIc	VIIIB	VIIA	VIIA	II	V
24	VIII or VIIA	VIIA or B	VIA	XV	VIIA	VIIA	VIIA	VIIA	VIIc	VIIIB	VIIA	VIIA	IV	IV
25	IXA or VIII	XI	VIA	VIIIB	VII	VIIA	XI	VIIA	VIIc	VIIIB	VIIA	VIIA	VII	II or III
26	XV or XIV	XI	VIA	III or VII	IXB	VIIA	VIIA	VIIA	VIIc	VIIIB	VIIA	VIIA	VII	II
27	XIV	XI	VIIA	IV	VIIIA	VIIA	VIIA	VIIA	VIIc or VA	VIIIB	VIIA	VIIA	VII	VIIA or IA
28	VIIA	XI	VIIc	IV	VIIB	VIIA	I	VIIA	VIIIB	I	IVA	VIIIB	II	I
29	IXA	XI	VIIIB	VI	VIIA	VIIA	I	VIIA	VIIIB	X	VIIA	VIII	XIA	IV
30	X	VIIIB	VIIIB	VII	XIA	XIA	I or XV	VIIA	VIIIA	VIIIB	X	IX	II	IXA

OCTOBER.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
1	IA	V	VII or VIIIB	VI	XIA	V	X	XV	VIII	I	IVA	XIIIA or VIII	VIA or V	IA
2	I	V	VII	VIA	XIA, VA	XII	XIV	XIA	VIIIB or XII	XIII	XIIIA	IVA	VA	IA
3	I	IXA	VII	VI	V	I or XII	XIV	IX	XIV or XIII	XIIIA	VII or IV	VII or IV	V	V
4	III	I or VII	XIV	II	V or III	IA	XIA or XIV	VIIIB	XIA	I	VIIc	V or XIV	II or III	IVA
5	I or X	IV or VII	VA	VIIIB	IV, V	Ia or VIIIB	IXA	VI	VIIA	I	VIIc or VIIIB	IV	I	IA or IV
6	X	V	I or VA	VII or VIA	II	VIIIB	VIIIC	VI	VIIA	VIII	I or X	VIIIB	V	V or Va
7	I or IV	IV or V	XII	VIIA or XV	VIA	VIIA	VIIA	VIIA	VIIA	VIIA	XII	III or IV	IV	IV
8	X	VII	VIIA or XV	VIIA	VIIA	IV	II	XIIA or VIIA	VIIA	VIIA	XII	III	I	IA
9	IA	VII	VIIA	VIIA	VIIA	II	XII	VIIA or VIIA	VIIA	VIIA	XII	II	I	IV
10	IXB	VIIIB	VIIA	VA	V	IV	VIIIB	VI	VIIA	XIIA	VIIIB	V	I or X	V
11	IXB	VIIIB	Va or VII	II	VIIA	XII	XII	XII	VIIA	VIIc	VIIIB	II	XII	XII
12	IA	XII	VA	VI	VIIA	XIV or VI	VI	VIIA or VIIA	VIIA	VIIA	XII	II	XII, III,	XII or XV
13	X	XII	VA	VIIA	VIIA	VIIA	VIIA	VIIA	VIIA	VIIA	VIIA	II	I, XV	IV or IVa
14	I or IA	XII	VA	VIIA	VIIA	VIIA	VIIA	VIIA	VIIA	VIIA	VIIA	V	I, XII	IV or IA
15	I	IA	XIV	VIIIB	VA	VIIA	VIIA	VIIA	VIIA	VIIA	VIIA	I	IV	XII
16	X	IA or II	XIV	VIIIB	II	VIIA	VIIA	VIIA	VIIA	VIIA	VIIA	I	III or V	I
17	XIA	II	IXA or XV	VIIIB	V	VIIA or XV	VIIA	VIIA	I	VIIA	XIIA	IV	XII, VA	XII
18	XIA or IVa	XIV	VII	VIIIB	XIV	VIIA or XV	VIIA	VIIA	II	VIIA	XIIA	XII	I	XV
19	XIA	XV	VII	VIIIB	II	III or XII	VIIIB or VIIIB	VIIA	VIIA	VIIA	VIIc	XII	IV	VIII
20	IA	IVa	VIIA	VIIIB	II	IXA or XIV	VIIA	VIIA	VIIA	VIIA	VIIc	VIIA	VIIc	VIIA
21	IVA or XIII	V	VIIA or VII	VIIIC	VIIIC	II or III	VIIIC	VIIA	VIIA	VIIA	VIIA	VIIA	VIIc	XII, VIA
22	IXA	VIIA or VII	VIIA	VIIIC	VIIIC	V	VIIA	VIIA	VIIA	VIIA	VIIA	VIIA	VIIc	XII, VIA
23	IXA or X	VIIA	XIV or XV	VIIIC	VIIIC	V	VIIIB	I	XIIA	VIIA	VIIA	VII	XII	VIIIB
24	XIA	VIIA	XIII	VIIIC	VIIIC	I	VIIIB	IA or III	XIIA	VIIA	VIIA	VIIA	VII	VIIIB
25	XIA	XII	VIIc or VIIc	VIIc	XIV	VIIIB	XV	VIIA or VII	VIIA	VIIA	VIIA	VIIA	VII	I or XV
26	IV	XII	XIV	VIIA or VIIB	VII	VIIIB	VIIIB	VIIA or XIV	VIIA	VIIA	VIIA	VIIA	VII	I or III
27	II	VIIA or VIIB	VIIA or VIIB	VIIA or VIIB	XIV	VIIIB	XIII	VIIA or XIV	VIIA	VIIA	VIIA	VIIA	VII	XI
28	IV	VA	VIIA or VIIB	VIIA	XIV	VIIIB	XIV	VIIA or VIIA	VIIA	VIIA	VIIA	VIIA	VII	XII
29	IV or V	VA	VIIA or VIIB	VIIA	VI or VIA	IXA or XIV	VIIA	IV	VIIA	VIIA	VIIA	VIIA	VII	VI
30	VII	VIIIB	XV	VIIA or XV	VIIA or VIIIC	VIIA or IXA	IA or IA	V or VA	IV or VII	VIIA	VIIA	VIIA	VII	VIIA or VIIIC
31	III	XIII	VIIA or XV	VIIA or VIIIC	VIIA or VIIA	VIIA or VIIA	VIIA or VIIA	VIIA or II	IV or I	VIIA	VIIA	VIIA	VII	VIIA or VIIIC

* The roman figures refer to the type of the morning weather chart on the corresponding date. Typical charts are given between pp. 150 and 151.

TABLE I.—continued. NOVEMBER.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	
1	VIIA	VIIA	VIIA	VIIA	VIIIB	VIIIB	I	VI, IV VA	IXB XIA	V, VIA VA	VIIA VIIA	XII, IXA IXA	VA	VII	VIIA XV
2	VII or XV	VII	VIIB	VIIIB	XI, XIA	I							VIIA	XIII, XIV	XV
3	VII	VII	VIIA	VIIIB	I, IA	III	V	IV, II, V	III	VII	IXA	VII	VII	XIA	
4	VIIIB	VIIA	VIIc, XIA	VIIIB, VIIIIA	VIIIIB	IXA	VA		IV	VIIIB	XIA	VII	XIA	VA	
5	VIIA	XV	XIA	VIIIA	VA	XII	III	VA, III XIA, VIA	V	VIIA	VIIIA	VIIA	II	III or XV	
6	VII	VIIIB	XIA	VIIIA	XIA	IV	I	XIA, VIA	III, XII	VIIIB	IA	III	II	XIA	
7	VA	VIIA	VIIc	VIIIA	XIA	IV	II	VI	IV, I	II	IA	VIIA, XII	V	XIA	
8	VII or XIA	IXA	VIIA, VIIA	VIIIB	VIIIB	XIA	I	II, VA	VI, VII	II, VA	I	XII, XV	IV	III	
9	IV	IXA	VIIA	VIIIB	VIIIB	XI	I	XV	V	XI, VIIIB	V	XV, III	I	II	
10	VIA	X	XIA	VIA	VIA	IV	XV	II	VII	II	I, XV	V	XV	XI or V	
11	VII	VIII _b , XIA	XIA, II	I	I	XV	XV	I	III	II	IVA	II	I, IVA	XI or II	
12	XII	XIIIA	XIA	VA	I	IVA	VII	X	III	I	IV _a , VII,	VA, IV	XII	VIII _b	
13	VIIA	VIIIIB	I	VA	I	VII	III	X	XIV	III	I	XI	XI	XI	
14	VIIc	VI	IV	VIIc, XV	XIV	XIV	III, XI	I	VA, XII	I	I	VIIIA	IA	XI	
15	VIII or IX	VA	XIA	VIIc	IXA	XV	VIA	IV	III	VII	I, XIII	VIIc	IA	VI	
16	IX or X	IV	XIA	VI	VIIIIB	I	V, XIV	VA	I	IXA	X	VIIb	II	VI	
17	X	III	VA	VI, XIA	VIIIB	XI	III	VIIA	VA	IXB	X, XI	VIIb	I	VI or VIIc	
18	VI or V	III, VII	XIA, XII	II	VIIIA	I	V	I	VA, II	IXB	VIIIB	VIIA	XI	X or IXB	
19	VII or XIA	IV	VIIc	I, XII	VIIIB	X	XV, XII	I	II, IV	IA	VIIIA	XV	II	X or IXB	
20	IXA, IA	I	VIIc	IV	X	I	IV	I, IV	VA, I	VIIIB	VIIIB	XV	II	XI	
21	II	I	VIIc, XIA	I	X	XIA	X	VI	XII	VIIIB	VIIc	III	I	VI	
22	V	V	V, VIIc	I	X	IVA	X, XII	V	XI, IV	VIIc	VIIc	IV	I	VIA	
23	II	V or II	XV	I	X	IVA	XIV	V	VIIA	VIIA	X	V	I	XII	
24	I or II	V or II	XV	I	I	VIIA	VIIA	II	VA	XIA	X	V, VA	III	V	
25	V	V	XII, XIII	II	I	VIIA	VIIA	V	VA	II	X	V, VA	I	XII or IV	
26	V or VII	IV	XII, VII	II	IV	VII	VII	VIIc	I	II	VA	X	I	XII	
27	I or II	I	VII	IV	V	VIIA	VIIA	VIIc	XIV	I, IV	VA	VIIA	II	XII or IV	
28	IVA	IV or IA	XIV, XV	VA	VA	XV	VIIA	VIIA	VIIA	I	VA	VIIA	III	III or I	
29	IXA	II	XIA	VIIA	VIIA	XIV	VA	XV	I	VA	VIIA	VI	II	XI or IV	
30	VIIc	I	VIIIIB	VI	VIIA	VIIA	V	XV	I	VA	VII	VI	II, IV	XIA	

DECEMBER.

Date.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
1	XII	X	VI	VI	III	VIIIA or IXA	VA	IV	II	V or VIa	VII	VI	XIV	VI
2	VI	IA	VIA	VI	III	VIIIA or VIIIB	VA	I	II	V	XV	XIA	I	VI
3	VI	I	VA	VIIIB	XV	VIIIB	VA	IV	III	VA	IVa	XIA or XII	I	VI
4	V	I	VA	XII	XIV	VIIIB	VA	VIA	I or XV	V	VII	X	IV	VI
5	VA	I	III	VA	I or III	VII	VII	V	II	III	IV	XIA	VIA	VIA or VIIA
6	VA	XII or IX	II or XIA	VA	XIV	VII	VA	VIA	IV	IV	V	VIIIB	VI	VIA
7	VA	IA	Va	V	XIII	VIA	XII	VIA	IV	IV	XV	XII	II	Va
8	II	II	III	V	I	VII	XII or VIIA	VA	VI	III or VIIA	XV	XII or VIIA	II	Va
9	II	I	III	VA	II or VA	VII	XII	VA	II	XIV	IVa	XV	XII	Va
10	XI	X	III	V	II	VII	VII	VA	I	IV	VII	XV	XIA	Va or XII
11	VI	IV	III	XV	VII	XV	XV	VA	II	VIIA	XV or XIV	XIV	XIV	Va
12	XI	III	XII or VIIc	I	VIIIB or VIIc	VII	VA	VA	IV	VIIA	X	XIV	IA	Va
13	IA	III or XIV	III	VIIC	VII	VIIA	VIIA	IV	VIIA	I	XIV	XIV	I	Va
14	IA	I	XV	VIA	VIIC	VIIA	VIIA	VII	II	IV	XIV	XIV	I	II
15	XI	IV	VIIc	V	VIIA	XII	XIV	II	IV	XV	XIV	XIV	I	V
16	II	XI	VIA	VIA	VIIA	VIIA	VII	II	III	VII	XIII	XIV	IV or I	VIA
17	IV	Va or XII	VIA	VIA	VIIA	XIA	I	VIA	II	XII	VIIA	XIA	IXA	I
18	VIA	VI or V	Va	I or III	XV	XIV	I	VIA	II	IXB or VIIA	IX	IV	IXA	III
19	III	VI	V	IV	XIV	II	VIIA	VIIA	VIIA	IV	VII	VII	XIA	XIV or I
20	II	VI	VI	IVA or XIV	XIA	I	XII	XV	V	XIIA or VIIA	XIV	VII	XIA	IV
21	II	VI	VI	III or V	VI	XIA	XII	XV	V	XIIA or VIIA	XIV	Ia or VIIA	XIA or VIIA	IV
22	II or IV	VI	IV or V or XIV	VI	VII	XIA	IV	V	VIIA	IV	VII	XIIA or VIIA	Ia or IXB	IV
23	VIA	VI	V	VI	VIIA	II	IV	V	XIV	VIIc	XV	XIV	IA	XIV, I, or XV
24	VIA	II	IVA	VIA	VIIA	III	V	V	X	IX	VII	IV	I	I
25	V	I	VIIIB	VIIIB	XII or II	I	III	II	IV	VIA	VII	XIV	X	I
26	IV or V	XIV	VIIIB	VIIIB	VIIC	III	I	III	VIIA	VIIA	XIV	XIV	X	IV or I
27	VII	I or X	VIIIB	VIIIB	VIIc	IV	X	IV	IV	VII	VII	VII	X or IXB	III or II
28	VII	X or XV	VIIA	VIIc	III	XI	III	III or XV	XV	VIIA or VII	IV	VIIA	VIIA	II
29	XV	X	VIII	XII	IV	IA	IVA	III	X	I	VIIA	II	VIIIA	IV
30	IVA	IVA or V	VIII	VIIc	XI	VA	VA	II	V	IXB	VII	VII	VIIIA	XIV
31	VIA	VII	VIII	VA	XI	V	V or II	V	IXB	VIIA or VII	VII	VII	VIIIA	XIA

* * The Roman figures refer to the type of the morning weather chart on the corresponding date. Typical charts are given between pp. 150 and 151.

TABLE II.—JANUARY.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
I	5, 6, 7, 10, 12, 20, 26, 30, 31.	3, 4, 6, 11, 29.	20, 28, 31.	8, 12, 31.	19, 20, 21, 30.	1, 10.	3, 4, 31.			2, 6, 27.	9, 12, 16.	8, 9, 10, 11,	1, 2, 4, 5.	9, 10, 11, 13.
IA			II, 27.	30.	7, 9, 10.			4.			19, 24.		10.	4.
II	2, 3, 4, 8, 9, 11, 12, 25, 27.	II, 12, 13, 14, 17, 25, 26, 27, 28, 29.	5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 28.	6, 18, 25, 26, 27, 28.	3, 5, 6, 10, 11, 15, 16, 29.	2, 3, 10, 11, 15, 17, 18.	9, 21, 25, 26, 27.	2.		4, 26, 28, 29, 30.	19, 20.	3, 5, 6, 7, 10, 12, 15, 20, 21, 22, 24, 25, 26.	1, 3, 7.	
III		5, 10, 29.	I, 2.		I4.	I2.	II.	5.	23.		4, 6, 7, 8, 11, 13, 15, 21, 31.			
IV	4.	7, 9, 18, 31.	10.	7.	I3.	I, 4, I3, I5, 23, 26.	28.	6, 8, 22.	18, 19, 26.	3, 7, 21, 27.	5, 8, 10, 24, 26.	2, 6, 9, 12, 14, 16, 23, 27.	3, 5.	I2, 14, 17.
IVA					I9.				22.					I9.
V	24.	18.		I5.	I, 17.	5, 8, 9, 31.			I, 2, 6.	8, 25, 30, 31.	I4.	4, 16, 17, 23.		6, 17, 23, 24, 25, 26, 27, 28, 29, 30.
VA		I2, I3, I5, I7.	I.			I4, I6.	7, 8.	I3, I4.	3, 4, 5, 30, 31.		20.	I8, I9.		
VI	22.		23, 24.	II, 12, 21, 22, 23, 24.	2, 4, 21, 22, 23, 24, 28.	7.	I7, 23, 24.			I2, I9, 20.				
VIA	8, 14, 15, 16, 20, 23.	I, 2, 3, 4, 15, 16, 25.	19, 20.	I3, I4, I6, I7, 19.	I, 18, 25, 26, 27.		29.	I1, I2.	7, 8, 27, 29.	I0, I1, 22, 23, 24.		I, 28, 29, 30, 31.		20, 21, 27, 28, 30, 31.
VII	I7.	9.						9, 10, 15, 24.	I3, I4, I5, I6, 17, 24, 28.			I, 2, 7, I3.		22.
VIIA							31.	I8, 20, 21.						
VIIIB	I7, 21.			I.				I5, I6, I7, I9.	9, 10, 11, 27, 29.		3, 27.		22, 24, 25, 21, 27, 28.	
VIIIC	I, 18, 19.			I.			3, 4, 5, 30.		I2.	9, II.			I8, I9, 20, 21.	
VIII								23, 26.					I7.	
VIIIA				2.			31.			I7.				23, 24, 29, 30.
VIIIB				2, 10.			20.	27, 28, 30.		I4, I5, I9, 20, 21, 22.				
IX							I3.						31.	I, 3.
IXA								7.			22, 23.		I4.	
IXB	26.	22.	I7.				I5.	29.	26.	I3, I6, I8.	25, 28, 29.			
X		I9, 21.	26, 30, 31.	29.	9, 30.	21, 22.	2, 12.				I7, I8, 22, 29.		9.	2, 3, 8.
XI	I7.	23, 24.	I8, 20.			4, 5, 6.	I8, I9, 28.	I.		I, 3.	30.			
XIA	I8.		25, 20, 21, 22.	3, 4, 5.	I9, 20.		I4, I6.	23.						I0, I5, I6, 5.
XII							6, 7.							6, II, 12.
XIII							27.		25.					
XIIIA														I5.
XIV		8.					22.		I4, I7.					I8.
XV		6.	2, 3.	8, 9.		24, 25, 28, 29.			I9, 20, 21, 25.	5.	4, 9.	8, 9, I3.	7, I5, I6.	

* * * The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.
GEOGRAPHICAL MEMOIRS, No. 16.

TABLE II.—*continued.* FEBRUARY.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
I	1, 2, 3, 11, 12, 19.	2, 3, 28.	17, 21, 22, 24, 25.	1, 8, 9, 16, 18, 19, 20, 23, 24, 25, 26, 29.	1, 4, 5, 6, 15.	6, 8, 9, 27.	20, 24, 26.				23, 24, 25.	17, 19.	26, 27.	25, 27, 28.
IA	13, 14.	8.	16.	5.	2, 3.		19.							26.
II	4, 5, 6, 7, 10, 13, 15, 16, 17, 18, 25.	1, 2.	15, 18, 19.	3, 10, 11, 15, 21, 27.		4, 5, 7, 16.	16, 17, 18, 21, 22.	24, 27.	3, 4, 8.	16.	1, 27, 28.	8, 13.	23, 24, 28.	10, 11, 22, 26.
III	28.	25, 26.	20.	22, 23, 28.		21, 24.				19, 23.	8, 21.	9, 14, 15, 16.		
IV		10, 21, 22, 23.	22.	17.		12.	27.	28.	2.	9, 17.	20.	10, 18.	16, 19, 25.	7, 8, 12, 21, 23, 24.
IVA									28.		15, 16.	12.		
V	8.	17, 18.	15.	13.		22, 23, 28.	23, 25.	23, 25, 26, 29.	5, 6, 10, 24, 26.	1, 2, 3, 4, 15.	3, 4.	3.		
VA	25, 26.	9, 14, 15, 16, 25.	9, 10.	14.	9.	1, 2, 10, 11, 13, 14, 15, 17, 18, 20.	10, 12, 28.		1, 7, 9.	8, 10, 11, 12, 13, 14, 26, 27, 28.	2, 18.	6, 7.	20.	1, 2, 3, 4, 5, 6, 9, 18, 20, 22.
VI	9.		3, 6.	12.	8, 16, 19, 20, 22.		9, 14, 15.		11, 23.			1, 4.		15, 16, 17, 18.
VIa		13, 19.	7, 8.		21.	19.		16, 17.	25.	5, 6, 7.	4, 26.			1, 2.
VII		10.						9, 10, 15, 19, 22.		20, 21, 23.	9, 10, 11.		17, 18, 20.	
VIIA		23.						1, 11, 12, 18.			6, 13, 17.	27.	2.	
VIIIB	24.							4, 5, 6, 7, 8.		-	5, 7.	26.		
VIIIC					23, 24, 25.				16.					
VIII					II.									
VIIIa	22, 23.				12, 26.				17, 18, 19, 20, 21.			23, 24, 25.	22.	
VIIIb			28.		13, 14.			1, 2, 3, 5, 6.		12, 14, 22.			20.	6, 7, 9, 10, 12, 13, 14, 15.
IX	21.				16, 28.		4.	2, 3.						
IXa								14.				26.	5.	
IXb			I.				8.							
X	II, 12, 20.	4, 13.	13, 23.	2, 4.			7.					22.	8.	
XI			2, 26, 27.	5, 6, 7.	7, 17.		13.		13.				11.	25.
XIa		5, 6, 7, 14.	4, 5, 14.		27.		4, 12.	21.	15.	20, 24, 25.			21.	1, 2, 3, 4, 8.
XII		12, 19, 20, 24.	11.			3.	11.		27.	18.	19.	2, 5.		13, 25.
XIII						4.							21.	
XIIIa														
XIV	20.	17, 27.	12.						13, 20.		22.	14.	27.	
XV	27, 28.	II.			10.	25, 26.					12, 20, 22.	II, 29.		

* * The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.

TABLE II.—*continued.* MARCH.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
I	31.	1, 2, 9, 14, 31.	8, 9, 10, 14, 19, 22.	7, 11, 31.	26	13.	1, 15.	7, 29.		2, 3, 4, 7, 27.	1, 2, 6, 11, 13, 14, 15, 16.	29.	18.	20, 29.
IA	4.	13.	20, 23.		5.	13, 16, 20, 21, 22, 23, 24.	4, 5, 6, 8.	30.	8.		9, 10, 12, 17, 29, 31.		24, 25, 28.	
II		4, 6, 7, 8, 16, 17.	7, 13, 15, 22.	31.		16, 17.	2, 3, 10.	13, 27, 28, 29.	10, 15.			30, 31.	13, 17, 19, 23,	27.
III	10, 11, 12, 19.	18.	17, 18.	8.				3, 5, 6, 7, 19, 20.	16, 20.	6.			30.	28.
IV	8, 28.	10, 15.	21.	13.	24, 27.		5.	8, 16, 24.	11, 18, 24.	5, 11, 17, 28.		25.	1, 9, 27.	20.
IVA					17.		31.	23.			20, 21.			
V	9, 29, 30.	5.						1, 2, 4, 8, 25, 26.			24.			21, 29.
V A	5, 6, 7, 14, 16, 17, 18, 27.		16.	23, 28, 29, 30.		1, 7, 9, 27.		2, 13, 14, 15, 26.	2.	1, 12.	4, 5.			11, 12, 30.
VI			27.						25, 26.				16.	9, 10, 18.
VIA	23.		5, 29, 31.	21, 27, 28, 29.		2, 3, 7, 8, 9.			1.	13.				
VII	11, 14, 15, 20, 25, 26.	11.		22.	20, 21, 22, 29.	2.		9, 17, 18, 21.	28	12, 14, 18, 19, 23, 24, 30, 31.	3, 23.			5, 10.
VIIA						6, 9, 18.		17, 18, 19.	10.	29.	25, 29.		10, 14, 15, 18, 19, 20.	6.
VII B	21, 22.				19.	4, 5, 6.	20, 21, 22.		27, 30.				2, 16, 17.	4.
VII C		3, 4.	19, 20.			3, 30, 31.	30.		31.				2, 3.	3, 4, 14.
VIII					10, 11.		23, 29.			26.			10, 11, 12, 13, 21, 22.	8.
VIIIA					31.		27, 28.				27, 28.			7.
VIIIB						22, 23, 24, 25, 26.								13.
IX	2.	21, 22, 23, 27.			1.		25.				8.	7.	15.	1, 25, 26.
IXA		24, 25.			12, 15.	12.	24, 26.				8.			2.
IXB	3.	20, 28, 30.				27, 28, 29.	7.				25.			
X		19, 20, 29, 31.	11, 23.	13.	13, 14, 16.	18, 19.	14.			7, 18.	4, 5, 6.	21, 22, 26, 27.		
XI	3.	1, 2, 12, 24, 25, 26, 28.	15.			14, 20, 28.	8.	12.	25.					21, 22, 23, 24.
XIA	4.	26.	30.	18, 24, 26.		15.							19, 22, 26, 29, 30, 31.	1.
XII	5, 26.	18.	6.	16, 23, 25.		11.	6, 9, 11.	15.						12.
XIII				5, 12, 14, 17, 26.	23.			11, 31.		9.			23, 24.	
XIII A				14, 17.										
XIV		14.		2, 4.	2, 4, 16, 23, 28, 31.		11, 12, 13, 16.			10, 15, 16, 22.		16, 28.	14, 31.	
XV	1, 12, 13, 24.	12.		1, 3, 4, 6, 7, 9, 10.	3, 6, 7, 8, 15, 22, 25, 26, 30.	10.		18, 22.	17, 19, 23.	20, 21.		3, 26, 27.	11, 12, 20, 29, 30.	5, 28, 29, 31.

* * The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.

TABLE II.—*continued.* APRIL.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
I	5, 7, 8, 23, 24.	22, 24.	28, 29, 30.	I, 21.	I, 30.	20, 21, 22, 29, 30.	24.	7, 9, IX.	I.	8.	I, 4, 9, 10, XI, 21.	II, I3, I4, I5,	I, 10, I3, I6, 18, 20, 21.	7.
IA		X4.	22, 24.	22.	I2, I3.			X0.	X0, XI.	X4.	X6, X7.	9, X0, X2, X6.	X9, X7, X8, X9.	
II	4, 9.	21.	23.	2, 3.		II, I9.	I5, 20, 21, 22, 26.	3, 4, 5, 6.		24.	4.			2.
III	29.	28, 29.	7.	4.	I4, 29.		23, 27.	8.		6, 7.	5, 8.			6.
IV	I, X0, 25, 26.	20.	19, 20.		I9.	23, 27.	I7, 25, 28.	2.	I3, 20.	2.	3.	23.	X6, X7.	
IVA	3, X2.			29, 30.	28.					I.	30.			
V	5, 27.				16.	I2.	2.		I4, 21.		2.			
VA	28.	13.	21.		II, X7, X8, X9.				I5, I6, I7, I8, 25, 26, 28, 29.	I2, I3, 23.	6, 7.	X7.	8.	
VI					4, 5.			I6, I7.		20, 21, 22.				
VIA	9, X0.	4, 5.	6.		4.	I3.				X0.		24, 25.		
VII	II, 30.			27, 28.	22, 23, 24.	I8.	I, X8, X9.		27, 30.	5.				
VIIA			4, X2, I3, I4.											3, 4.
VIIIB	I3, I4, I5, I6.	I2.	2, 3.					I8, X9.		I8.		26, 27.		
VIIIC	I7, X8.		I, 5.	II, X2, I3, I4.	21.	I, 2.		20, 21, 22, 23.	2.	I9.				23, 24, 25.
VIII			II.	I5, I6, I7.		4, 5.			6.	30.				IX, 26, 30.
VIIIA	X9.								24, 26, 27.	3, 4, 5.	26.	29, 30.		X0, XI, 28, 29.
VIIIB				6, 7.				I5.			23, 28.	2.		
IX	I9, 20.	I8, X9.	I0, I5, I6.	9, X8, X9.		8.	I5, 6, 7, 8, 9, X0.	25, 28, 29.	7, 8, 9.	30.				I3, I4, I5, I7, I8, 27, 29.
IXA			27.		I.	5.						22.		I4, I6.
IXB	I, 2, 3, 9, X0, I5.			2, 3.			II, I2, I3.	I2, I4, 30.			25, 27, 29.	6.		23, 24, 25, 26.
X	6, 21, 22.	23.	I7, X8, 25.	5, X0, 20.		9.	3, 4.	I.	I2.	25.	I3.	5.	4, 7, I2, I5, I7, 21, 22.	I9, 20.
XI					9, X0, I5.	I0.	I4.			I5, I6, I7, I8, 27, 28.	I.			
XIA	6, 7, 8, XI, I6, I7, 27.	26.	8, X0.	6, 7, 8.	28.	I6.	I3.	22, 23.	29.	I2, I4, I5, I8, I9, 24.	3, 4, 7, 8, 9, X0, XI, 28, 29.	5, X9, 29, 30.	5, 8, 9, 22.	
XII	2.	26, 28.		24.			25, 26.			I1.	20, 22.	4, 17.	6, 9, X0, I2, I4, I5.	
XIII	II.			24, 25.		3.					5.	21.	2.	7.
XIIIA		7.												
XIV		25, 30.		23, 26.	25, 26, 27.	I6, 7, I3, I4, I5, I6, I7.	29, 30.		24.	3, 4, 9.		21.	4, II.	I2, 26.
XV	7.		8, 9.			24.			I9.			I8, I9, 20.	2, 3, 9, I4.	I1, I2.

* * The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.

TABLE II.—*continued.* MAY.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
I	3, 8.	I, 31.			12.	4, 8, 9.	6.	29.	18, 19.	9.	II.	22, 28.	30.	24, 25.
IA	9, II, I2, I4, 16, 23, 24.	29, 30.		20.	II, I3, I4, I5.	I, 26.		17.	16.	I3, I9, 20, 28, 31.	31.		I.	
II			3, 4.	I7, I8, I9, 27.	I8.	29, 30, 31.		8, 9, 18.	20, 22, 23.	21.		I6.		
III				7, 9.		6, 7.		2.		6.			I4.	23.
IV	I0, 25, 31.		I.	I0, II, I6.				I0, I3, I4, 28.	2.	I0.		I0, I3, I4, I7, 23, 26, 31.	7, 9.	
IVa		3.	30.	3, 8, I3.			I.		28.		2.	II, 18.		
V												20.		
Va	30.	27, 28.		25, 26.	22, 23, 29.		2, 3, 4, 23, 24, 25.	I5.	29, 31.			27.	24.	
VI		7.			3, 4, I9.		9.		25.		I.	I9, 21, 24.	25, 26.	I4.
VII	26, 29.	2, 5, 6, II.	8, 9, I0, II.		20.			7, I9.	21.				I3, 22, 23, 31.	I5, I6, I7, 20, 21.
VIIA		22.	I2, I3, I4, 25.	I, 2, 4.				31.	8, I2.	4.			I8, 21.	
VIIb		I2.	5.	31.	5, 6, 7, 21.	I4, I8, I9, 20.				4, 5.		9, I0, II, I2, I9.		
VIIc	6, 7, 27, 28.	I3.	I9.	29.	31.	I1, I2.	8.			I6.			20.	I7.
VIII			21.	30.		I6, I7.	I1, I2, I3.		I3.		I3, I5.	I, 2, 5.	7, 8.	I, 5, 22.
VIIIA			20, 28.		8, 9.	I5.	I0, 29, 30, 31.				I8, 24, 25, 26.		6, 17.	
VIIIB	5, I6, I7.			28.			28.			I4, I5.	I0, 27.		2, 3, 4.	27, 28, 29, 30, 31.
IX	I8.								I4.				5.	
IXA	I9, 20, 21.	I8, I9, 20, 21.				23, 24.		23.			I4, 23, 28.		28, 29.	8, 24.
IXB	I5.				I0, I3.	25.		25, 26.		I.	8.		I6.	
X	I3, 20, 21, 22.		I6, I7, I8, 26, 27.	I.	27.	I9, 20.	24, 27.		9, 24.	I2, I4, 29, 30.		I5.	I9, 26.	
XI				23.	2, 24, 30.			I.	24.	2.	7.	31.		
XIA	4.	8, I5.	I4, 22, 29.	3, 24.	I6, I7, 28.	2, 3, 21, 22, 28.	I5, I7, I6, I7, 18, 21, 22, 26, 27.	I, 2, I5, 26.	I3, 6, I7, I8, 22, 25, 29, 30, 21.	I, 9, I9, 20, 22, 25, 29, 30, 21.	4, 20, 29, 30.	I.	II.	
XII		4, I0, I4, I5.		22.		5.			3.	II, I2, 23.		I5.		I2, I8, I9.
XIII								22, 30.	5, 6, I7.	7.		I2.		6, I0.
XIIIA										26, 27.	6.			
XIV	2.		I5.	I2.			I5.	I2, I6, 21.			I3, I7.	3, 6, 7, 9.	27.	I3.
XV	I.	9, I6, I7.	3.	I5.	I8, 26.	I0, I3.	I4.		4, I8, 27.	8.	I6.	3, 8, I2, I5, 25.		I2, I3.

* The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.

TABLE II.—*continued.* JUNE.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
I	28.	I, 21, 22, 30.	16, 21, 23, 29.	5, 8, 9.	6, 7, 18, 19.	13, 14, 26, 27, 30.	26, 27.	16.	12, 20, 25, 27, 29.	1, 3, 4, 5, 6, 7.	4, 29, 30.	2, 3, 10, 11, 20, 27, 28.		15, 16, 21, 22, 23, 27, 28, 14, 20, 11, 24.
IA			25.	7, 25.	3, 27.		20.	26, 30.	II, I2, 22.	24, 25, 26, 28.	I.			7, I3, 14.
II			I4, 19, 20, 22, 26, 27, 28.	I2.		3, 29.	28, 29, 30.		6, 7.		5.	30.	3, 23, 26.	
III			I, 6, I3, I5, I6.	I6.	20.	23, 28.	20, 21.	20.	8, 10.		3.	I.	I9, 24.	
IV	2, 4, 22.	20, 24, 25.	I7, I8, 22, 24.	10, 21.		15.	21.	I3, I4, I7, I8.	I3, 21, 22, 26, 28.	18, 29.	2, 6.	4, 21, 22, 29.	22.	I2, I8.
IVA	I8.	23.	4.		28.	24.		I4, I5.			I7, I8.			
V	2, 3, I9.	26, 27.		I5.		I, 2.		I8, 21.	2, 3, I4.	I9, 30.			4, I6.	
VA		24.	I4.	II, I3.				23, 24.		20, 21, 22, 23, 24.			I, 2, I8.	
VI			II.						I, I5.		7.		I5.	
VIA	20, 21.		8, 9, II.		21.			I9, 22, 25.	4.		8, 9.		I4.	
VII	I5, I8, 29.		I, 2, 5.	I.	22, 23, 29.	21, 22.	I6, I7, I8, I9, 22.	I7, I8, 23.		28.				
VIIA			IO, I2.				3.	IO.						
VIIIB	I2, I3, I4, I6, I7.	I8.		2, 3.		20.		I.	5.			23.	6, 7, 8, I3.	
VIIIC	24, 25.					9.			I4.				IO, II, I2.	
VIII	IO, II, 30.	I7.			4, 7, 29.	8.		IX.			23, 24, 25.			
VIIIA	24, 25.	16.		30.		7.							27.	
VIIIB					I5.	I9.	6.				IO, 20.			I, 2, 3, 4, 5, 8, 29.
IX	7, 8, 9, IO, 23.	I3, I4, I5, I6.	30.			5, 6.	II, I2, I3, I4.		30.	8, 9, I5.	I3, I4, I9.	I6.		
IXA	5, 6.	29.		I7.	27.		8.	I2.		9, I3.		I3.	29.	IO.
IXB	23.	5, 6, 8, 9, IO, II.		26, 27, 28, 29.		I6, I7, I8.	6, 7, I5.				II, I2, I5.	I7.	30.	8.
X		2, 3, 4, IO, I2, I3.		6, 20, 26.	5, 9, IO, II, I2, I3, I4, I6, I7, 30.		9, IO, I2.			2, I6.		9, I2, I4, I5, I9.		II, I7, 24, 25, 26.
XI		6, 21.		I0.					9, 28.				3.	
XIA		7, I9.		4, 19, 22, 23, 24.	2, 8, IO.	IO, II, I2.	I, 2, 4, 5.		I6.	IO, II, I2, I4, I, 21, 22, 27.	I8.	5, 9, IO, I4, 6, 9, 20, 30.		
XII		28.		I4, I6.									25.	
XIII				I8.		4.		7, I2.					20.	
XIIIa									30.	I4, I7.	I6.			
XIV	I, 27.		30, 7.		I, 25.	I, 24, 25, 28.	24.	2, 3, 4, 5, 7, 8, 9, 29, 30.	I9, 24.		26.	8, 9, 25, 26, 29.		
XV	26.		3.		24, 25, 26, 27.		23, 25, 26.	5, 6, 28, 29.			26, 27, 28.	5, 6, 7, 24, 25, I9, 21.	I9, 21.	9, 19.

* * The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.

TABLE II.—*continued.* JULY.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
I	6, 13, 17, 18, 19, 20, 21, 23, 15, 16, 19, 20, 24, 25, 28, 31.	6, 8, 12, 14, 15, 16, 19, 20, 30, 31.	2, 7, 10, 25, 14, 31.	4, 7, 8, 10, 11, 13, 17, 30.	1, 2, 3, 4, 19, 23, 26.	1, 2.	1, 2.	5, 8, 10, 11, 15, 19.	22, 23, 24, 25, 26, 27, 28, 29, 30.	1, 5, 8, 12, 15, 18, 30.	5, 8, 9, 10, 13, 14, 15, 18, 29.	20, 21, 30.	21, 28.	
IA	7, 10.	13.	11, 12.		19.	6.	16, 17.		17, 18.	7, 15, 16, 17, 18.	9, 10, 11, 14, 21.	10, 11, 16, 19, 30, 31.	17, 19, 25.	5, 6, 7, 25.
II	3, 15.	17, 23.	28.	9, 30.	3, 13, 14, 15, 16, 18, 21, 31.		19.	8.	18.		3, 14, 20, 29.	12.	17, 28.	
III	15, 16, 30.	29.	5, 6, 8, 9, 27.		6, 23, 24.	21, 22, 29.	18.	29, 30.			22, 23, 24, 28, 31.		16.	13, 18, 19, 24
IV	4, 7, 11, 12, 14, 27, 29.	1, 9, 21, 22.	13.	8, 15, 19.	2, 5, 9, 12, 20, 22, 27, 28, 29.	5, 20, 24.	3.		9, 12, 16.	4, 8.	2, 16, 25, 27.	1, 6, 12, 20.		8, 9, 22, 29.
IVa	22.	28.	3, 4, 22, 23, 24, 25, 29.					23.	21.				15.	
V	9, 26.	18.		16.		27, 30.		9, 31.		13, 31.	26.		18, 26, 27.	
Va		29.		23.		31.		8, 10, 11, 12.		7.			13, 15.	
VI						20, 21.				10.	19.			19.
VIa	2.	26, 31.			+ 28.	20, 28, 31.				12, 19.			12, 13, 14.	14, 15, 17, 31
VII		22, 26.	10.			27, 30.	24, 25, 26.			14.		1.		16.
VIIa		24.				26.					6.			
VIIb		30.				29.				2, 9, 10, 11.	4.			
VIIc			24, 25.											
VIII					15, 16, 17.		22.				24.	7, 8, 22.		
VIIIa			1.			12.	16, 17.	24, 25, 26.						
VIIIb			15, 16, 19, 20, 21.	2.		12.	9, 10, 11.		1.		22.	23.		30.
IX		17.	4, 5, 6.		11, 14.	13, 14, 15.	4, 5, 18, 20, 21.	1, 26, 27, 28.				4.	2, 4.	
IXa	1, 5.			13.		18.	3, 17.	23, 31.			24.	9, 10.	27.	
IXb						12.						21, 26.	2, 3, 6, 11.	3.
X		11.	1, 17, 18.	3, 18, 19, 20, 21.	1, 7.	7, 8, 9, 10, 13.		2, 19, 20.	2, 3, 4, 6, 7, 20, 23, 29.	29.		17, 28.	1, 5, 10, 30, 31.	
XI		25.		22, 27.			4, 5, 6.			1.				
XIa	8.	2, 3, 4, 5, 6, 7, 10, 24.		26, 28.			7, 8, 22, 23.	6, 7, 13, 14, 15.	30.	21.	13.	3, 20, 25, 27.	24.	1.
XII			10.				25.		14.	3, 19.		4.		
XIII													20.	10.
XIIIa			14.	29.			24.					23.	23.	20.
XIV		27.		7, 11, 12.				27, 31.	13, 14, 22.	5, 6.		2.		22.
XV				17, 18.	25, 26.	25, 26.		28.		5, 16, 20.	7, 17	7.	19	11, 12, 23, 26.

* * The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.

TABLE II.—*continued.* AUGUST.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
I	8, 11, 12.	8, 9, 11, 17, 19, 27.	1, 7, 15, 19, 20, 21, 22, 23, 24, 26.	II, 12, 30, 31.	I, 13, 14, 21, 22, 25, 26, 27, 30, 31.	5, 22, 31.		2, 9.	8, 9, 10, 13, 14.	27.	4, 15, 16.	18, 19, 20, 21, 28.		9, 18, 31.
IA				I, 4, 9, 13.	II, 12.		30.				20, 21, 22.	3.		15, 23, 26, 30.
II	6.	4, 5, 16, 21.	25, 27, 30.	10.	29.		29.						16.	17, 19, 20.
III	5, 10.			5, 6, 8, 9, 10, 14, 15, 17, 18, 19, 29.	23, 27, 28, 29.		19.	25.	21.		7.		26, 27.	18. 4, 8, 24.
IV	7, 21.	6, 10, 12, 20, 24, 26.	3, 11, 12, 13, 16, 28.	24, 26.		6, 7, 12, 16, 17, 18, 20, 23.	6, 18, 24.	8, 11, 16, 17, 22, 23, 25, 28, 31.	12, 13, 15, 21, 25.	6, 25.	8, 9, 10, 31.	I, 22, 24, 31, 30, 31.	7, 27.	
IVa	2, 15, 24, 25.	23.	2.			13, 14.					I, 7.	23, 25.		25.
V	7.	22.			15, 20, 23, 24.	25.	4, 26, 27, 28.	17, 18.		9, 10, 21, 22, 23.	5.	24.	25.	
Va	18, 19.	3, 14, 15.	29.		19.		3.		16, 22.	26.	II, 12.	13, 14.	17.	
VI		29, 30.			5.		8.							14, 21, 22.
VIa	9, 22.	I, 2, 13, 31.				28.	2, 5, 9.			I, 8, 24.	5.	II, 12.	13, 21, 22.	II, 22.
VII	3, 4.	7.	4.			3, 4, 11, 14, 15, 24.	I.	29.		2.	13.		6, 7, 8, 23.	1, 5.
VIIa				20.		I.		4.	29.		2.	25, 29.		2, 3.
VIIb										13, 14, 15, 20.				
VIIc														
VIII	16.						14.							2.
VIIIa				19.			II, 12, 13.			16.				
VIIIb				2, 3.					I, 2, 3.	12, 18, 19.	24, 27.	5.		II.
IX				17.		9, 10.			17.					
IXa				6.	2.		22.		4, 5, 31.				I, 2, 3.	
IXb	17.			15.	3, 10.				I, 2, 18, 19, 20.	17.		7.		13, 28, 29.
X	30, 31.	18.		5, 7, 8, 14, 16, 18, 31.	31.		15, 16.	13.	6, 7, 12.		17, 18, 19, 29, 30.	4, 5, 6, 17, 19.		
XI	14.	28.			4, 8, 28.		7, 9, 17, 31.		25.	II, 31.	23, 25, 26.	I, 8, 9.		10.
XIa	I, 13.			31.		6, 7, 9, 29.		10, 18.		26, 27, 28.	28, 29.	28.	2, 22.	I2, 16.
XII	5, 8.			31.		16, 21.	21.		10, 12.	23, 24.	5.		30.	I5, I9, 20, 26.
XIII					22.	17.	8.	20, 21, 23.	3.	II.		14.		4.
XIIIA					8.						30.		10.	5.
XIV	20.				21.	17.		19, 22.	6, 8, 19, 24, 26, 27.	30.			17, 18, 27.	4, 26.
XV	23, 26, 27, 28, 29.	25.			25.	18.	2, 26, 27, 29, 30.		1, 5, 7, 14, 15, 20, 30.		3, 4.	3, 6.	I5, I6, I7, 30.	I9, I0, I1, I2, I3, I4, I5, I6,

* * The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.

TABLE II.—*continued.* SEPTEMBER.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
I	I, 2, 3, 4, 12.	6, 16.			2, 10, 11, 12.	I, 4, 5, 20.	I, 2, 3.	21, 28, 29, 30.	I, 2, 5, 6, 7, 8, 15.	13, 18, 27, 28.	23.	5, 12, 13, 14, 16, 19.	2, 9, 12, 14, 21.	I, 2, 3, 11, 12, 13, 28.
IA		9.			I, 14, 15, 16, 17.	5, 6.		21, 23, 24.	6, 18.	14, 17.	9.		15.	
II	8, 11, 13.			4.		4.			19, 27.	4.	II, 12.	15, 16.	18.	15, 16, 17, 22, 23, 27, 28, 30.
III	XO.				26.				20.			I2		I7
IV	4.	5.	3, 4.		5, 13, 16, 27, 28.	30.	2.	22.	3.			5, 6.	II.	3, 13, 24.
IVA					3.					19, 22.		14, 17, 28.		4, 5.
V	5, 6, 7, 8, 9.			5.	7, 8, 14, 17.						II.	13.	I.	I8.
VA		I4, I5.	6.	I5.				I, 2, 24, 25, 26, 27.		25, 26, 27.	I4.			I8, I9, 25, 26.
VI			7, 10, II, 23.	30.				I, 2, II.			I, 6, 23, 24, 25, 26.	7, 10.	23.	
VIA		I, 2, II.	I2, 24, 25, 26.	I8, 19, 29.			I8, 27, 28, 29.	IO.				8, 23, 24.	2, 22, 24.	4.
VII				23, 26.	25.				29.	I5, 23, 24.	8.		3, 26.	I6, I7.
VIIA	23, 24, 28.			27, 29.			24, 29.	26.	8, 21, 23.	28, 30.	I6.	5, 9.		5.
VIIIB	22.	30.	30.	20, 22, 25.	22, 23, 28.			8.	26, 27.	28, 29.	I, 2, 3.	9, 10, II, I9, 20, 21, 22.	25, 27, 28.	
VIIIC	21.	I3, I8, I9, 20.	28.			I6, 17, 18.	9.		23, 24, 25.	3, 4, 21, 27.				
VIII	24, 25.			29.							3, 5.	4	29.	
VIIIA		24.				27.				2, 6, 7, 30.		I9.		
VIIIB			8, 9, 22.				I0, 22.	4, 7, 17, 18.	I2, I3, I4, I6, I8, I9, 20, 21, 22.		22, 29, 30.		6, 8.	
IX		21.				I3.	II, I5, 21.	I5, I6.					30.	
IXA	25, 29.	I7.			4.	II, 12.	4, I4.			I.				30.
IXB	I5.	I0, 22, 23.				I4, I5, 26.	7, 8, 12, 16, 17.	IO.		IO.				
X	I6, 30.	I0.	I5, 21.			2, 8.	4, 5, 6, I3, 20.	I4.	9, 10, II, I5.	I0, 18.	I9, 20, 21.	2, 3, 4, 27, 29, 30.	I4, I9, 20, 21.	
XI	I5.	7, II, 25, 26, 27, 28, 29.	I8, I9, 20.	I2		3, I9.	25.						I7.	20.
XIA	I4, I7, I8, I9, 20.	4, 8.	I3.			9, 10, II, I2, 20.	I9, 30.	3, 5, 7, 9, I2, I3, I4.		7.	I2, I8.	7, 8, 9, I0.	6, 7, 8, I0, II, 29.	
XII		3.			I1.	7.					I0, I7.			8.
XIII	I6.				21.									
XIIIA														
XIV	27.	I6.				6.				I7.	I.			I0.
XV	26.			2, 3.	I, 9, 24.	7, 21.		30.		I3, I4, 20.		25, 26.	3, 4.	I0, 23.

* * The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.

TABLE II.—*continued.* OCTOBER.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
I	2, 3, 5, 7, 14, 15.		6.		24, 25.	3.	23.	27, 31.	15.	1, 2, 4, 5, 6.		15, 16.	5, 6, 8, 9, 10, 11, 13, 14, 18, 25, 26, 27.	16.
IA	1, 3, 9, 12, 14, 20.	15, 16.			30, 31.	4, 5, 31.	24.							1, 2, 5, 8, 14, 22, 25, 26.
II	27.	16, 17.		4, 11.	6, 8, 16, 19, 20, 21.	9.	31.	18, 19, 20.	16, 24.	3.		9, 11, 12, 13, 31.	4, 22, 31.	
III	4, 31.				4, 8, 21.	19.	24.		22.			7, 8, 31.	3, 4, 7, 12, 16 26.	
IV	7, 26, 28, 29.	4, 5, 7.			5, 9.	10.	29.	15, 30.				5, 17.	7, 11, 15, 19, 24, 29.	4, 5, 7, 9, 13, 14, 28.
IVa	18, 21.	20.					26.		9.		1.	2, 3.		13.
V	29.	1, 2, 6, 7, 21.		8.	3, 4, 5, 10, 17, 22, 23.	1, 18.	30.		16, 18.			4, 6, 10, 14.	1, 3.	3, 6, 10.
Va	24, 28, 29.	5, 6, 11, 12, 13, 14, 22.	10.		2, 13, 14, 15.		30.	13, 16.	31.	27, 28.	13, 14.		2, 16, 17.	6, 21.
VI				1, 3, 6, 12, 29.		7.	12.	5, 6, 7, 8, 9, 10, 11, 12.	14, 17, 25.					29.
VIa		5, 22, 23, 24, 26.	21.	2, 6, 7, 9, 13, 14, 29, 30, 31.	7, 11, 12.		13.	8, 12, 28.	13, 19, 20, 26, 27, 28, 30.			24, 29.	1, 20, 21.	30.
VII	30.	4, 5, 8, 9, 22.	1, 2, 3, 11, 18, 19, 21.	28.			19, 20, 21.	25, 26, 27, 29, 30.	11, 21.	25.	7, 21, 22, 23, 28, 29, 30, 31.	3, 23, 25, 26, 27, 30.	30.	22.
VIIa			8, 9, 10, 20, 28, 29, 31.	27.		14, 16, 17, 22.			5, 7, 8, 10, 29.	22, 23, 29, 31.	24.	22, 24.		
VIIb		10, 11.	1, 28.	15, 16, 17, 18, 19, 20, 27.		15, 23, 24, 25, 26, 27, 28.	14, 18, 19.		12.	21, 24.	9, 10, 11, 20.	22.		
VIIc		26.		21, 22, 23, 24, 25, 26, 31.		21.	6, 15, 16, 17.				11, 15, 16, 17, 19, 20, 29, 30.	4, 5, 15, 16, 19.	20, 21.	31.
VIII						29.			1, 2, 6.			1.		19.
VIIIA								9.						
VIIIB				5.		5, 6, 14.	10.	4.	24.	2.	5, 6.			23, 24.
IX								3.			26.			
IXA	22, 23.	3.	17.		29, 31.	13, 20, 30.	5.	22.			25.			20, 21.
IXB	10, 11.													
X	5, 6, 8, 13, 16, 23.						1, 2, 9.			6.			10.	
XI							II.			7, 8, 9.				27.
XIa	17, 18, 19, 24, 25.			1, 2.	8.	4, 7, 8.	2, 23.	4, 23.	10.	17, 27.				
XII		12, 13, 14, 27.	7, 23, 25.			2, 3, 11, 12, 19.		14.		12.	8, 12, 18.	18, 19.	12, 14, 17, 21, 23, 28, 30.	11, 12, 15, 17.
XIII	21.	31.	24.				27.	21.	3.	13.	2.		12	
XIIIA										18.	3.	1.		
XIV		18.	3, 4, 15, 16, 23, 26, 27.		18, 26, 27, 28, 29.	12, 20.	3, 4, 26, 28.	28.	3, 9.	14, 26.		4.		
XV		19, 30.	8, 17, 26, 30, 31.			17.	22, 25.	1, 22, 24.	8.			28, 30.	13, 25.	12, 18.

* * The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.

TABLE II.—*continued.* NOVEMBER.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	
I	24, 27.	20, 27, 30.	I3, 24.	I9, 21, 22, 23.	I0, II, I2, I3, 24, 25.	I, 2, 8, 9, 16, 18, 20.	6.	II, I5, I9, 20, 21, 28.	7, 16, 28.	I2, I4.	8, I0, I3, I4, I5.	9, 26.	7, II, 21, 22, 23, 25, 27.	28.	
IA	20.	28.			3.					I9.	6, 7.	I2.	I4, I5.	23.	
II	21, 23, 24, 27, 29.		II.	I7, I8, 25, 26.			I, 7, 8.	8, 22, 24, 25.	I8, I9, 20, 26, 27, 29, 30.	7, 8, I0, II, 25.		II, I2, 28.	5, I6, I7, 20, 29, 30.	9, II.	
III		I7, I8.				3, 26.	5, I3, I6.	I0.	3, I5.	I3.	9.	6, 8.	6, 9, 24, 28.	5, 8, 23, 28.	
IV	9.	I6, 26, 28.	I4.	I0, 24, 27.	26.	6, I0.	I.	3, I6, I1, 28.	4, I9, 22, 27.			21, 22.	8, 26, 30.	25, 27, 29.	
IVA	28.					I2, 22, 23.		3.	7.		II, I2.		II.		
V	I8, 22, 25, 26.	21, 22, 23, 24, 25.		II.			3, I5, I7, 30.	4, 9, 23, 26.	5.	9.		I0, 24, 23.		I0, 24.	
VA	7.	I5.	I7, 22.	I2, I3, 28, 29.	5, 27, 28, 29, 30.		2, 4, 8, 29.	5, I7.	I, 2, I4, I7, I8, 20, 24, 25.	8, 26, 27, 28, 29, 30.		I, 2, 24, 25.		4.	
VI	I8.	I4, 23, 24.		I6, 30.				7, 8.				29, 30.		I5, I6, I7, 21.	
VIA	I0.		8.	I0.			I4, 28.		I, 23.		28, 29.	7.		22.	
VII	2, 3, 6, II, 26.	2, 3, I8.	26, 27.			I3.	II, I2.		6, 8, 9, I0, II, I2.	3, I5.	I2, 30.	3, 4.	I, 3.		
VIIA	I, 5, I3.	I, 4, 7.	I, 3, 8.	29.		25, 27.		I8.		I, 2, 5.		5, I8.		I.	
VIIIB	4.	6.	2, 9.	I, 2, 3, 4, 7.		24.			9.	4, 6.		I6, I7.			
VIIIC	8, I4, I9, 30.		4, 7, I9, 20, 21, 22.	I4, I5.			25, 26, 27.	6.		22, 23.	21, 22.	I5.		I7.	
VIII	I5.			8.											
VIIIA				4, 5, 6.	I8, I9.		23, 24.				5, I9.	I4.			
VIIIB		II, I3.	30.	9.	I, 4, I6, I7, I9.			3.		20, 21.	I8, 20.			I2.	
IX	I5, I6.														
IXA	20, 29.	8, 9.			I5.	4.				I6.	I, 2, 3.				
IXB						8.		I.		I7, I8.				I8, I9.	
X	I6, I7.	I0.			3, 20, 21, 22, 23.	I9, 30.	20, 21.	I2, I3, I4.			I6, I7, 23, 24, 25, 26.			I8, I9.	
XI		I2.				2, 9.					I7, 27.	I3.	I3, I8, I9.	I0, II, I3, I4, 20.	
XIA	8, I9.	II.	4, 5, 6, I0, II, I2, I5, I6, I8, 21, 29.	I7.	2, 6, 7.	21.		2, 6.		24.	4.		4.	3, 6, 7, 29, 30.	
XII	I2.			I8, 25.	I9.		5.		I4, 21, 22.				I2.	23, 25, 26, 27.	
XIII				25.								I5.	2.		
XIIIA		I2.									I2.	7.	2.		
XIV				26, 28.		I4.	I4, I7, 29, 30.	I5, I8, 21, 22.	5, 27, 30.	6, I3.		I, 9, I0.	8, I9, 20.	I0.	2, 5.
XV	2.	5, I9.	23, 28.	4, I4.			7, II, I5, 28.	9, I0, I3, I8, I9.	29.						

* * The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.

TABLE II.—*continued.* DECEMBER.

Type.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.
I		3, 4, 5, 9, 14, 25, 27.		12, 18.	5, 8, 20.	17, 18, 24, 25, 26, 30.		2.	4, 10, 14.	16, 29.	13.		2, 3, 13, 14, 15, 24.	16, 17, 19, 20, 23, 24, 25, 26.
IA	13, 14.	2, 7.				29.					21.		12, 18, 22, 23.	
II	8, 9, 16, 20, 21, 22.	8, 24.	6.		9, 10, 25.	19, 23.	31.	14, 15, 16, 17, 18, 25, 30.	1, 2, 5, 9, 11, 12, 13, 20, 27.			8, 29, 30, 31.	6, 7, 8.	14, 27, 28.
III	9.	12, 13.	5, 8, 9, 10, 11, 13, 21.	13, 18.	1, 2, 5, 24, 26, 28.		25, 26, 28.	28, 29.	3, 16.	5, 8, 17, 18, 20.	7.	22.	21.	18, 27.
IV	17, 22.	11, 15.	22.	19.	27, 29.	20.	22, 23, 27.	1, 3, 27.	6, 7, 14, 15, 25.	6, 7, 10, 19, 22.	5, 14, 20, 28.	18, 24.	4.	16, 21, 22, 26, 29, 30.
IVA	26, 30.	30.	20, 24.				29.				3, 9.			
V	4, 25, 26.	18, 30.	19, 21, 22, 23.	7, 8, 10, 15.			24.	5, 19, 20, 21, 22, 23, 24, 31.		1, 2, 4, 30.	26.			15.
VA	5, 6, 7.	17.	3, 4, 7, 18.	5, 6, 9, 31.	9, 23, 31.	14.	1, 2, 3, 4, 6, 12, 19, 30, 31.	8, 9, 10, 11, 12, 13.		3, 31.	22, 26.			5, 7, 8, 9, 10, 11, 12, 13.
VI	2, 3, 11.	18, 19, 20, 21, 22, 23.	1.	1, 2, 21, 22, 23.					8, 21, 22.			1, 6.		1, 2, 3, 4.
VIA	18, 23, 24, 31.		2, 16, 17.	14, 16, 17, 24.		7.	17, 18.	4, 6, 7.		1, 8, 18, 25, 26.		21, 22, 28.	5.	5, 6.
VII	27, 28.				11, 22.	5, 6, 8, 9, 10, 12, 13, 16.	5, 8, 10, 13, 14, 16.	26.		27, 28.	1, 4, 10, 15, 16, 19, 24, 25, 26, 27, 30, 31.	19, 20.		
VIIA			28.			2.				11, 12, 13, 28.	17, 29.			
VIIIB			25, 26, 27.	25.	12.	3, 4.								
VIIIC			15.	26, 27, 28, 30.	12, 13, 14.					23.				
VIII		31.	29, 30, 31.			1.								
VIIIA					15, 16.	2.							29, 30, 31.	
VIIIB				3.					19.					
IX		6.								24.	18.			
IXA						1.						27.	10, 17.	31.
IXB									18, 20, 31.			27.	11, 22, 27, 28.	
X		1, 10, 27, 28, 29.				27.			17, 24, 29, 30.		12.	4.	25, 26, 27.	
XI	10, 12, 15.	16.			30.	28, 31.								
XIA			6.	20.	17, 21.	22.			21.			2, 3, 5, 7, 17.	19, 20, 21.	
XII	1.	6, 17.	12.	4, 29.	25.	15, 21.	7, 8, 9, 20.				3.	9.	10.	
XIII					7.							16.		
XIIIa														
XIV		13, 26.	12, 20, 22.		4, 6, 19.		15.		23.	9, 21.	7, 11.	11, 12, 13, 14, 15, 21, 23, 25, 26.	1, 16.	19, 23.
XV	29.	28.	14.	11.	3, 18.	11.	11, 21.	28.	4, 28.	14, 15.	2, 6, 8, 11, 15, 21, 23,	9, 10.	1.	23.

* * The figures in the table give the days of the month on which the corresponding type occurred. Typical charts are given between pp. 150 and 151.

approximate about equally closely to two or three types. In such cases they have been classified under each of the two or three types.

The frequency of the types in the different months of the year is shown in the following table: in compiling this table a chart classified under two different types has been counted as contributing one-half to the frequency number for each type: so that the numbers in the table may be taken as giving the number of days in fourteen years on which the corresponding types occur. Some types such as I. and XV. are summer and winter types, and are less frequent in spring and autumn. Types II. and VI. are winter types; while types VII. and XI. are most frequent in spring and autumn.

TABLE III.—TYPE FREQUENCIES. Totals for 14 Years.

Type.	Jan.	Feb.	March.	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
I.	46	46	32	39	18	51	78	50	47	29	52	35	523
IA.	9	8	21	19	25	15	30	14	14	19	7	11	192
II.	68	44	27	18	14	18	20	15	24	20	29	33	330
III.	16	15	16	15	8	15	27	23	6	11	20	29	201
IV.	31	21	22	19	21	29	42	51	24	19	24	38	341
IVa.	2	4	5	7	9	8	10	11	8	9	6	6	85
V.	25	26	22	8	0	15	13	22	15	23	23	23	215
VA.	16	47	22	22	20	12	8	13	16	23	33	41	273
VI.	21	19	7	7	15	5	2	7	15	21	13	23	155
VIA.	42	13	12	7	21	12	16	17	24	24	10	25	223
VII.	15	14	26	13	24	20	11	20	11	36	21	34	245
VIIA.	4	8	17	7	13	4	2	9	13	18	17	8	120
VIIIB.	17	10	20	13	19	16	7	5	24	24	14	7	176
VIIIC.	13	4	15	20	16	5	2	0	16	30	17	8	146
VIII.	3	2	12	9	17	10	7	3	5	4	2	7	81
VIIIA.	6	11	5	11	16	5	7	5	7	1	9	1	84
VIIIB.	10	19	5	5	16	11	10	10	24	11	13	2	136
IX.	3	5	13	30	4	20	20	8	8	2	1	3	117
IXA.	3	3	8	3	15	10	11	4	7	11	9	3	87
IXB.	11	2	8	23	9	20	8	13	11	3	5	7	120
X.	16	11	19	24	21	30	29	23	27	8	17	13	238
XI.	13	10	17	12	9	4	7	18	16	5	13	7	131
XIA.	14	21	12	37	49	33	27	18	29	17	22	12	291
XII.	4	10	9	11	11	4	5	9	5	25	14	12	119
XIII.	2	4	9	5	9	4	3	11	1	7	2	3	60
XIIIA.	1	0	1	1	3	3	5	4	0	2	1	1	22
XIV.	4	8	17	23	14	21	12	14	7	19	8	22	169
XV.	19	10	35	12	18	20	15	37	16	13	18	20	233
													5113

The following are brief notes on the different types written after the armistice, when more leisure was anticipated but hardly obtained amid the difficulties of carrying on both current work and demobilisation.

The notes relate primarily to the winds and weather of NE. France and Flanders.

TYPE I.

This type is frequently transitional, and in such cases is associated mainly with fair weather, though there may be occasional showers: the sky is not continuously overcast and may clear entirely at night; but if it does, inland fog is likely to develop. At other times the type shows persistence, and in these cases much more low cloud develops, and mist and drizzle come in NE. France if the weather at Scilly is cloudy and misty.

The type is very favourable for winds nearly due West at night.

A notable instance of the type was November 20-27, 1917, during the Battle of Cambrai, which began in the early morning of November 20.

An instance of the transitional type occurred on March 19-20, 1918: it was followed by fair weather in the evening of the 20th, and inland fog on the morning of the 21st, when the Germans began their offensive.

Type IA. is a modification of Type I., in which the anticyclone occupies a more Northerly position. It is usually associated with fair weather in Flanders, as at the end of July 1916, March 24, 25, 1917, and December 1917.

A rather indefinite form of IA. existed also on July 28, 1917, and broke down with thunder-storms. Usually a breakdown of this type comes, owing to a depression spreading down from the North, and bringing in winter milder but unsettled weather.

The type is much less persistent than the reverse type No. VI., and less favourable for a spell of fair weather.

TYPE II.

This is a type in which little or no rain falls in Flanders, but it is frequently persistently dull, with indifferent visibility; and on the high ground of the Boulogne-St. Quentin Ridge there may be drizzle or drifting fog. Much depends on the weather at Scilly: if it is cloudy or overcast there, and misty, the weather in Flanders is almost certain to be dull with this type.

A notable occasion was the 12th and 13th of October 1916: the operations of the 13th suffered considerably owing to the low cloud between Albert and Bapaume, which prevented the full co-operation of aeroplanes.

On March 17, 1917, on the other hand, during the German retreat from the devastated area, the same type was accompanied by fine weather.

The causes of the difference are not very clear, but this is a type where more detailed information from Western stations and information from the Atlantic, including information about humidity and upper air temperatures, would be of great assistance to the forecaster.

TYPE III.

In this type NE. France is in the middle of the region between the anticyclone to the South and the depression to the North; in the region of straight Westerly isobars, in fact. Fresh or strong winds between West and SW. prevail, and the weather varies: at times heavy rain falls and at times the sky is almost cloudless. The forecaster is much puzzled: the rain comes when he expects fair weather, and the fair weather when he expects it to be at least dull. He sees slight indications of a secondary disturbance passing like a wave along the isobars from West to East: he expects rain in front of the trough; instead, he gets fair weather in front of the trough and rain behind it. So he decides that he will not be caught the next time; but the next time either the reverse happens or the weather is continuously dull, or thunderstorms and squalls come along, as on August 26, 1916, when several aeroplanes failed to return through a squall coming from the West while they were over the German lines.

The elucidation of these differences can probably be achieved by a combination of Sir Napier Shaw's results on the travelling disc of rotating air, with details of the upper-air temperatures and humidities. The heavy rain and squalls are caused by

instability arising from a saturated layer spreading over the lower current: the drizzle or low cloud from a saturated lower current moving beneath a potentially warmer upper current.

TYPE IV.

This is a transient type. It occurs with depressions moving across Scotland or North of it. It may follow Type I. or Type III. It is usually associated with fair weather; but occasionally in Flanders the sky remains overcast, and the wet weather of the advancing depression begins before the clearing anticipated in the rear of the retreating depression materialises. This is especially the case if the ridge is "flat": the explanation appears to be that the current, instead of coming to Flanders across the hills of Ireland and Wales, keeps a more Southerly course; and the high ground of NE. France is then sufficient to produce or maintain the cloud formation: whereas in the case of the sharp ridge any condensation which is to be got out of the current by orographic causes is precipitated in the British Isles. It may also be that the NW. burst of colder air behind the depression never reaches NE. France, which continues in the more humid Westerly current.

In addition to steepness of ridge, another decisive factor for mainly fair weather and bright, is in fact relatively low temperature in the NW. of Ireland at the time when that region is situated in front of the ridge.

In *Type IV_A*. the depressions are on a more Southerly track, and produce stronger winds and more rain in NE. France. Northerly winds at Stornoway and Lerwick appear to be favourable for increase of intensity in the advancing depression. A notable case is that of November 11, 12, 1915. The type is not a very frequent one.

TYPE V.

In this type depressions move from SW. to NE. on the Atlantic, the centres keeping NW. of the British Isles. In NE. France the weather is usually fair; but if low cloud or fog sets in on the West coast of France, driving wet fog and rain or drizzle may be expected. Usually also with this type the wind attains less strength, especially South of the Somme, than would normally be anticipated from the fall of the barometer in the West.

In *Type V_A*. the Atlantic depression is situated further NW., and is very extensive, including within its sphere of influence the whole of the British Isles and Northern France. The weather in this type is more dull and wet, as a rule, than it is in Type V.

TYPE VI.

is a definitely fair weather type, with NE. or East winds in NE. France. It is, however, sometimes continuously dull and misty, without precipitation. It usually persists for some days, or changes into one of the other types, with rainless weather and Easterly or light variable winds, *i.e.* the rainless weather may last considerably longer than the precise isobaric type. The break-down of the weather usually comes with a depression spreading from the North, and bringing, in winter, milder conditions. But occasionally a depression from the Mediterranean spreads across France and changes the curvature of the isobars from anticyclonic to cyclonic, at the same time causing snow in winter.

In *Type VI_A*. the North-South radius of the anticyclone is greater and the isobars are less curved. This is also a fair weather type, but in summer it is one

favourable for the development of thunderstorms. The surface winds are South or SE., while the upper winds are South-Westerly: this change in direction arises from the thermal gradient: the air over the Continent is, roughly speaking, warm, and that over the ocean cold, which gives SW. to NE. mean isotherms and consequently a turning of the isobars to the SW.-NE. direction. This results in the cooler humid air from over the ocean passing above the warm dry air of the land: consequently instability is produced and thunder-storms.

Types VI. and *VII.* predominated in the period September 22-27, 1916, when successful operations were carried out in the Somme Battle during the fair weather spell, which was eventually broken up by thunder-storms late on the 27th.

TYPE VII.

is from one point of view merely a further extension of the change from VI. to VI_A. The anticyclone is in about the same position, but the curvature of the isobars has become cyclonic in the region under consideration. This is sometimes a transient type, but sometimes it persists with little change in the relative positions of high and low. The winds are South-Easterly in Flanders, and the weather usually either unsettled or only temporarily fair.

Type VII_A. is a modification of VII., in which the depression is centred further South-East, so that winds over Flanders are Easterly or even slightly North of East. There is usually some precipitation in Flanders, though not generally in large amounts. A notable occasion of this type was November 18, 1916, during the Battle of the Ancre: on that occasion snow fell, and the wind was strong or high, so that conditions were of the "blizzard" type.

Type VII_B.—The depression is larger and is well away from land: the curvature of the isobars is very slightly cyclonic: usually the weather is fair: the type may last for a few days, but it is also often a prelude to one of the less settled types, such as II. or V_A. A notable occasion of this type is found towards the end of January 1917, during the great frost of that year.

Type VII_C.—In this type the curvature has become definitely anticyclonic, with the high pressure centred over Scandinavia and the Northern Baltic. This type is definitely equinoctial: it is very rare in midwinter and midsummer. It is associated with fair weather in Flanders, with NE. winds; sometimes, however, the weather is dull and misty, the mist apparently coming from the Baltic and forming low cloud over the high ground of the Boulogne-St. Quentin Ridge. The rainless weather of this type usually lasts for days.

This type preceded Type VII_B. in the long spell of frost in January–February 1917. It followed Type VII_B. in June 1917, during the Battle of Messines, for which a week's fair weather was forecasted and came.

TYPE VIII.

The anticyclone is centred North of Faroe, and North France is in a region of low pressure. Winds in Flanders are light and mainly Easterly. The type brings snow in March, though not as a rule heavy snow.

Type VIII_A. is similar to Type VIII., but the anticyclone is further South, and the winds in Flanders are definitely NE., moderate or fresh inland, strong or high at Calais. (It is worth noting, specially in connection with East and NE. types,

how high the wind gets at Calais even when it is moderate inland.) This is a fair weather type: whether it is going to be dull or bright depends much on the conditions over Denmark and the Baltic. Overcast weather and mist there mean dull weather in Flanders.

Type VIII_B.—The anticyclone is centred over Great Britain: winds in Flanders are still Easterly, but less strong, and the weather is definitely fair and usually also bright. A notable occasion of this type occurred at the end of May 1918 (May 27–31), when the Germans made their great attack on the Aisne against the French.

TYPE IX.

The anticyclone is NW. of Scotland, and Northerly winds, with NE. upper winds, prevail across Great Britain and North France and Flanders. The weather is usually dull, with banks of cloud drifting over from the North Sea: drizzle is frequent, and sometimes there is appreciable rain. So far as Flanders is concerned, the type is a "Sea" type, *i.e.* the wind has had a long stretch of sea to come over, and unless there is very good reason to the contrary the weather will naturally be overcast. It is not easy to realise this with a generally rising barometer and an anticyclone apparently spreading towards Flanders; but experience shows that the fulfilment of the promise of fair weather with Type IX. is nearly always postponed later than anticipated.

Type IX_A.—The anticyclone is in a similar position, but the depression is further North and is centred near Flanders: this is an unpleasant type: it is dull: it may be wet or snowy: it is generally cold for the time of year: and it persists sometimes after promising to change to a fairer type. The most notable example in all history of this type is the one which persisted in the first three days of August 1917, at the beginning of the Battle of Ypres. On that occasion the heavy rain was practically confined to the area North of Arras. Another example occurred at the beginning of November 1915.

Type IX_B—In this type the anticyclone is centred over Great Britain, and the depression is far to the SE. In this type there is usually very little rain though it may be dull drizzling weather: on some occasions, however, it is fair and bright with this type (April 1917). An example occurred at the end of June 1917, in which this type followed IX_A., and brought a gradual improvement in the weather.

TYPE X.

This is a Northerly type, with the anticyclone to the West of Ireland. It is usually a transient type, and is frequently accompanied by rain or snow in its earlier stages, followed by fine weather: if the type is transient between depressions moving from NW. to SE. the fine weather is usually a very temporary affair, and is followed by wet or snowy weather, as in April 1917, during the Battle of Arras. If, on the other hand, the type changes over to a IX_B. or VIII. type, the fine weather will probably come more slowly and last longer.

TYPE XI.

This is the typical fair weather anticyclonic type. It may be cloudy and, in autumn, overcast, but it is more often bright in the day, with mist in the early morning. The wind is light and variable. This type prevailed immediately after the Armistice in November 1918 and at the time of the German offensive in March 1918.

Type XIa.—The characteristic feature of this type is an anticyclonic band, cut in the middle by an area or trough of relatively low pressure, but only slightly lower in the trough than the general level in the band. The type is most frequent in April and May. Usually there is little or no rain, but frequently the weather is overcast near the trough, and sometimes there is drizzle or slight rain: and in summer thunderstorms often occur with this type, or immediately after it.

TYPE XII.

This is the V-shaped depression. In front it is usually mild: behind it the weather is cool. If it is of the well-defined quickly moving squall type, the weather, wet in front of and in, the trough usually improves after the trough has passed and the visibility becomes very good. Sometimes, however, the trough sticks, as at the beginning of September 1915, and the dull wet weather then persists.

TYPE XIII.

The characteristic feature of this type is a large area of low pressure in which a number of smaller shallow "lows" are found. It is not of very frequent occurrence. It is usually associated with raw weather in winter and with thunder-storm weather in summer.

Type XIIIa. is the converse of Type XIII., being a large area of high pressure in which a number of smaller "highs" are found. The weather is generally fair, but thunder-storms may occur in summer.

TYPE XIV.

This is the "dumb-bell" depression. Usually the two depressions rotate in a counter-clockwise direction, and the whole system simultaneously moves forward, most frequently in an Easterly direction. Heavy rain or snow is associated with depressions of this type, but in the area between the two centres there is usually a patch of bright weather.

The very wet August of 1912 was characterised by a relatively large proportion of depressions of this type, the most notable being that which caused the exceptional rain near Norwich.

April 11, 1917, was also a notable example: heavy rain, sleet, and snow fell in NE. France (third day of the Battle of Arras).

TYPE XV.

is the converse of Type XI.: it is typical cyclonic conditions, with stormy unsettled weather. An excellent example is the mid-day chart of December 27, 1915. Another is the morning chart of August 28, 1917, when the gales in NE. France blew trees down on so many telegraph lines that the chart itself could not be issued in France, the telegrams not arriving in time, owing to the great congestion caused by the damage due to the gale.

Usually the cyclone moves quickly away, but sometimes it persists for days, with little change of position, though it usually fills up in such cases. When this occurs the weather may be fair in spite of the isobars.