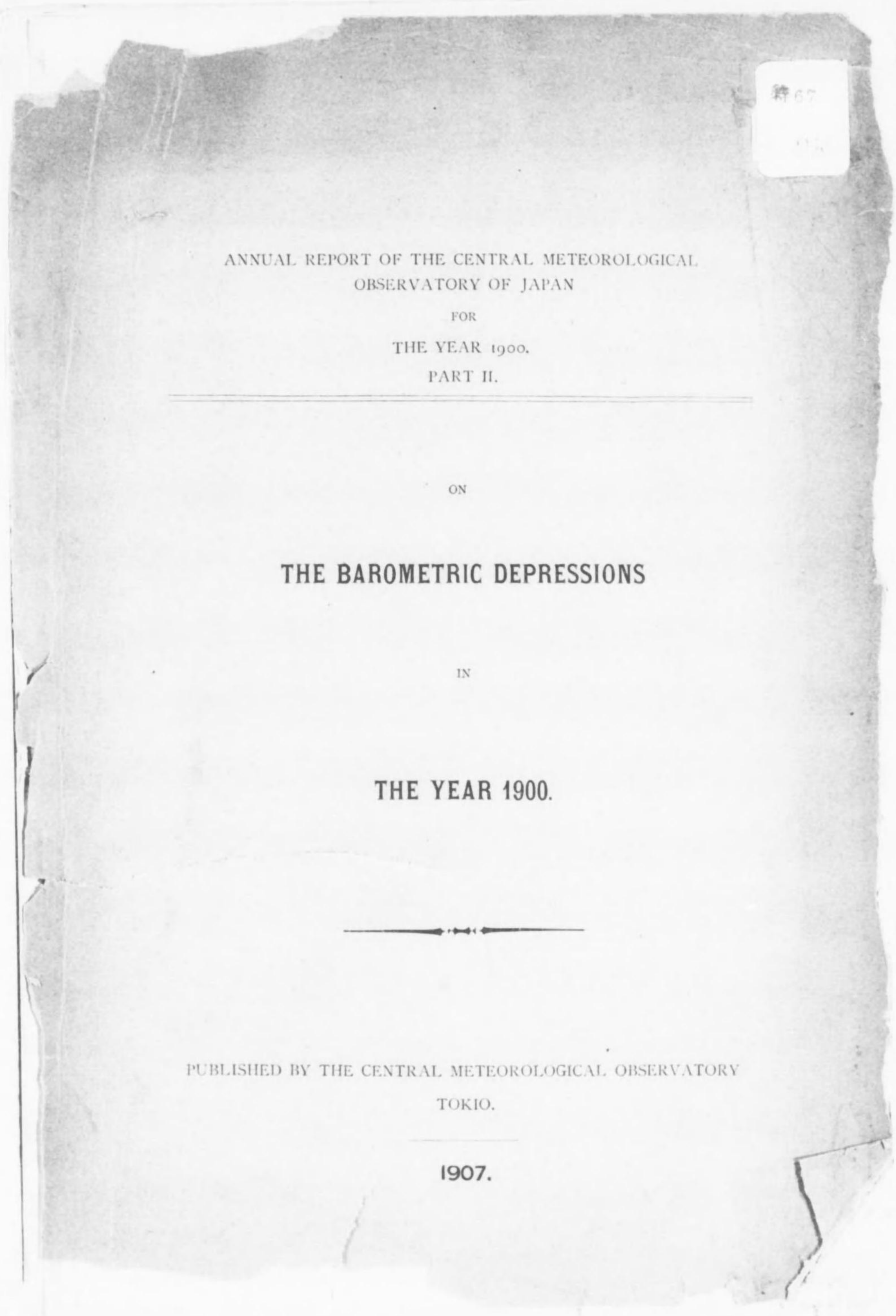
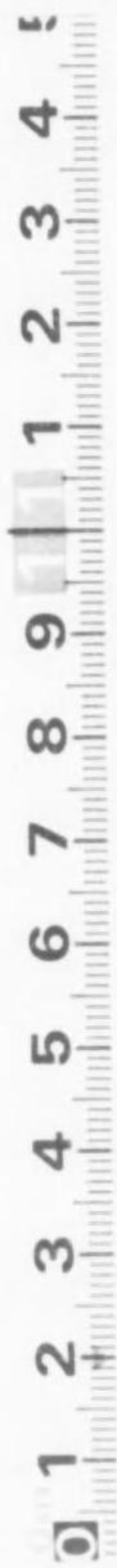




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ANNUAL REPORT OF THE CENTRAL METEOROLOGICAL  
OBSERVATORY OF JAPAN  
FOR  
THE YEAR 1900.  
PART II.

ON  
THE BAROMETRIC DEPRESSIONS

IN  
THE YEAR 1900.

PUBLISHED BY THE CENTRAL METEOROLOGICAL OBSERVATORY  
TOKIO.

1907.

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Observatory of Japan for the year 1900 consists of:—

1. *On the barometric depressions in the year 1900.*
2. *On the precipitation in the year 1900.*
3. *On the earthquakes in the year 1900.*
4. *Magnetic observations in the year 1900.*  
*Observations on atmospheric electricity in the year 1900.*



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IN

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中央気象台寄贈本

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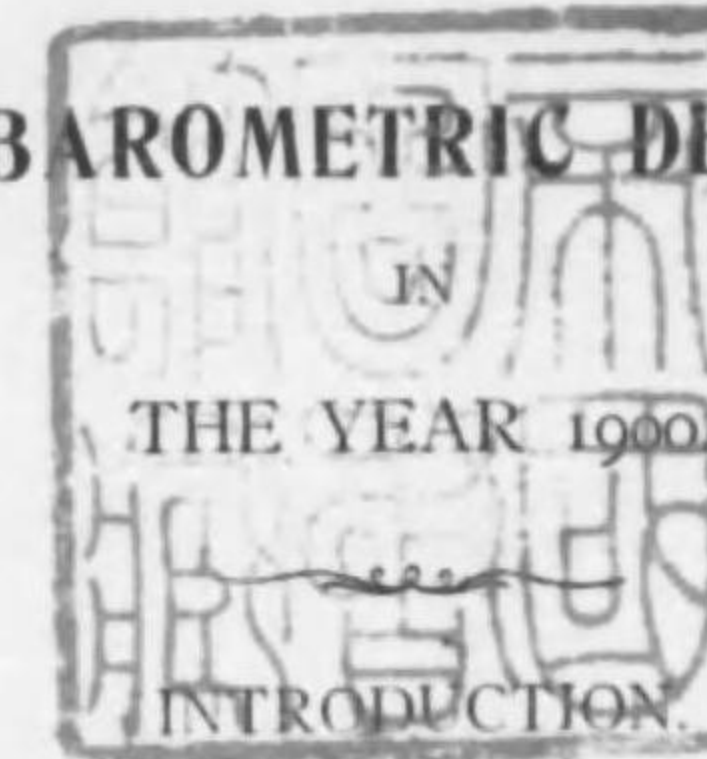
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## ON THE BAROMETRIC DEPRESSIONS



The present report contains the result of investigations of typhoons, cyclones, and secondary barometric depressions that passed over the empire and neighbouring seas during the year 1900.

The documents used for the preparation of this report are the manuscripts of tridaily weather charts of this observatory, and storm records sent from the provincial meteorological stations and naval semaphores. The meteorological logs taken on board the imperial naval vessels, mercantile marines, and foreign vessels have also been used, in so far as they are available. The bulletins of the Zikawei meteorological and magnetic observatory, the China coast meteorological registers published by the Hongkong observatory, the meteorological returns sent from the imperial Korean customs at Chemulpo and Wonsan, and Annales de l'observatoire physique centralNicolas have been consulted.

The present report consists of two parts; the first part contains a general review of the barometric depressions in each month, and the second part, detailed descriptions of more important storms. In the general review of the depressions, their origins, motions and lowest barometric readings are concisely stated. The classification of the cyclonic storms into typhoons, continental cyclones, barometric depressions, etc. is, to some degrees, arbitrary, since we could not distinguish them from one another in several cases. Hence, much importance must not be assigned to the classification given in the heading of the description of each cyclone. In the descriptions of more important cyclonic storms, brief statements of their appearances, passages, and the state of the weather during their visitations are fully given. Damages caused by stormy winds and inundations attending the atmospheric perturbations are also stated as far as possible. Tracks of all the barometric depressions described in the text are fully exhibited on the charts at the end of the volume, and those of severe typhoons are given in thick lines. Each of the small circles in the track indicates the position of the centre of depression at the time specified by the figures printed near it.



I. GENERAL REVIEW OF THE BAROMETRIC DEPRESSIONS.

January.—During the present month, 17 barometric depressions passed over this country and neighbouring seas. Six of them were continental depressions, and passed eastwards or toward ENE. None of these depressions were of intense character so as to cause damage to life and property. In fact, several of them passed this country causing no serious change in current weather.

I. Depression of the 3rd.—probably came from the sea south of Formosa, and appeared north of the island of Ishigakijima on the afternoon of the 3rd. At first, it moved northeastwards, but it changed its course towards the east under the influence of the anticyclonic area then existing in North China, and went into the Pacific, passing between the island of Okinawajima and of Amami-Oshima on the evening of the same day. A gushing shower occurred at Naha between 3 to 4 p.m. on the 3rd. The amount of rainfall for the one hour was 27.5 mm. The lowest barometer observed there was 758.4 mm at 3pm. L. B.\* 755 mm.

II. Secondary depression of the 4th.—developed near Kofu in central Japan on the afternoon of the 4th, and passed southeastwards into the Pacific. L. B. 759 mm.

III. Depression of the 5th to the 7th.—probably came from the sea south of Formosa, and appeared in the north of Ishigakijima on the early morning of the 3rd. At first, the depression advanced eastwards under the influence of a high area which was then existing in the yellow sea, North China and Japan sea, and entered the Pacific passing south of the island of Amami-Oshima about 2 p.m. on the 6th. After entering the Pacific the cyclonic centre changed its course towards the northeast, and approached to our southeast coast on the afternoon of the 7th. A rather heavy snowfall occurred in central and southeastern Japan on the 7th. Northerly gale prevailed on the southeast coast. The depression went away into the Pacific. L. B. 755 mm.

IV. Depression of the 9th to the 10th.—appeared in the sea south of Riukiu on the afternoon of the 9th, and quickly moved northeastwards. The depression passed off our southeast coast on the night of the 10th, causing threatening weather in southeastern Japan. The area of high barometer was covering over the yellow sea, Eastern sea of China, and North China. L. B. 750 mm.

\* L. B. stands for the lowest barometer.

V. Depression of the 9th to the 11th.—appeared in the straits of Korea on the night of the 9th, moved northeastwards and arrived on the west coast of Hokkaido where it probably filled up on the 11th. A rather severe snow-storm occurred in Southwestern Hokkaido on the afternoon of the 11th.

L. B. 750 mm.

VI. Depression of the 11th to the 12th.—appeared in central Japan sea on the 11th, and passed into the Pacific on the morning of the 12th.

L. B. 753 mm.

VII. Continental depression of the 13th to the 14th.—came from North China on the 12th, rapidly traversed Northern Korea and appeared in northern Japan sea on the night of the 13th. It crossed over northern Hokkaido on the evening of the 14th, and passed into the sea of Okhotsk. L. B. 760 mm.

VIII. Depression of the 13th to the 14th.—appeared in southern Japan sea on the morning of the 13th, moved towards ENE, and entered the Pacific, crossing Northeastern Japan on the 14th. L. B. 750 mm.

IX. Continental depression of the 16th.—appeared in the gulf of Tartary on the morning of the 16th, moved southeastwards and entered the Pacific on the night of the same day. L. B. 755 mm.

X. Depression of the 18th to the 19th.—probably came from the Eastern sea of China, passed the strait of Tsushima on the 18th, and entered the sea of Japan. The depression approached to the northwest coast of Japan proper on the morning of the 19th, and passed into the Pacific crossing northeastern Japan on the afternoon of the same day. L. B. unknown.

XI. Continental depression of the 20th to the 21st.—Developed in the valley of the Yangtsekiang on the 19th, and rapidly moved eastwards. On the night of the 20th, the centre of depression was in the central part of the Eastern sea. It passed south of Kiushiu about noon of the 21st, and passed into the Pacific. It passed off our southeast coast, causing general rainfall in southern Japan and heavy snowfall in central and southeastern Japan on the 21st. L. B. 755 mm.

XII. Continental depression of the 23rd to the 24th.—developed near Chongking in the upper Yangtse valley on the 21st, rapidly moved eastwards and entered the Eastern sea of China on the night of the 22nd. The centre of depression passed south of Kiushiu on the morning of the 23rd, and got into the Pacific. It was lying near the island of Hachijo on the morning of the 24th. General rain or snowfall occurred in Japan proper during the visitation of the depression. L. B. 755 mm.



- XIII. *Continental depression of the 25th.*—came from Eastern Siberia on the early morning of the 25th, and appeared near the west coast of Hokkaido on the morning. It crossed Hokkaido, and got into the Pacific. L. B. 755 mm.
  - XIV. *Secondary depression of the 25th.*—developed near Kofu in central Japan on the afternoon of the 25th, and passed into the Pacific, moving southeastwards. A cyclonic system of wind developed around the centre of depression. L. B. 753 mm.
  - XV. *Depression of the 25th to the 26th.*—appeared in the sea of Okhotsk on the night of the 25th, moved southeastwards, and passed into the Pacific on the morning of the 26th. L. B. unknown.
  - XVI. *Depression of the 28th to the 29th.*—appeared near the north coast of Formosa on the early morning of the 28th, moved at first northeastwards and arrived at the sea off Southwestern Kiushiu where it changed its course to the east, under the influence of an area of high barometer which was then occupying North China and the Yellow sea. The depression quickly travelled eastwards along the coast of the Pacific. Threatening weather occurred in Japan proper during the visitation of the depression. L. B. 750 mm.
  - XVII. *Continental depression of the 28th to the 29th.*—came from Siberia on the 28th, passed over northern Japan sea on the morning of the 29th, and entered the sea of Okhotsk on the night of the same day. L. B. 750 mm.
- February.**—The barometric depressions that passed over the empire and the neighbouring seas are eleven in number. All of them were areas of low barometer, and caused no serious atmospheric perturbations
- I. *Continental depression of the 2nd to the 3rd.*—appeared in southern China on the 1st, moved eastwards, and traversed over the Eastern sea of China and entered the Pacific. The depression near the island of Hachijo about noon of the 3rd. L. B. unknown.
  - II. *Continental depression of the 3rd to the 4th.*—probably came from Manchuria, passed near Wladiostock on the early morning of the 3rd, and passed into the Pacific, traversing northern Hokkaido on the night of the 3rd. L. B. 750 mm.
  - III. *Secondary depression of the 4th.*—developed near Kofu in central Japan on the afternoon of the 4th, and entered into the Pacific moving southeastward on the evening. Squally weather occurred in southeastern Japan. L. B. 755 mm.

- IV. *Depression of the 4th to the 6th.*—first noticed in the Yellow sea on the morning of the 4th. The depression moved rapidly eastwards, and traversed central Korea and Japan sea. It passed near the strait of Tsugaru on the night of the 5th, and travelled along the south coast of Hokkaido. Snow storm occurred in Hokkaido during the visitation of the depression. L. B. 748 mm.
- V. *Continental depression of the 9th.*—appeared near the northwest coast of Hokkaido on the afternoon of the 9th, and passed into the Pacific, traversing southeastwards over central Hokkaido. L. B. 748 mm.
- VI. *Depression of the 12th to the 14th.*—appeared in the sea southeast of Formosa on the morning of the 12th, moved along the chain of islands of Riukiu on the 13th, and passed into the Pacific. It was found lying far south of the Hachijo about noon of the 14th. It was a mere low area of no special importance. L. B. 758 mm.
- VII. *Depression of the 13th to the 15th.*—appeared in Northern Korea on the afternoon of the 13th, and travelled along the coast of southern Siberia. It crossed over southwestern Hokkaido, and entered the Pacific on the early morning of the 15th. L. B. 755 mm.
- VIII. *Depression of the 16th to the 18th.*—came from the sea southeast of Formosa, went northeastwards and entered the Eastern sea of China on the 16th. It passed north of the island of Amami-Oshima on the morning of the 17th, and entered the Pacific. The depression was noticed off our southeast coast on the 18th. Threatening weather occurred on our Pacific coast during the visitation of the cyclone on the 18th. L. B. 755 mm.
- IX. *Continental depression of the 19th to the 21st.*—probably came from Manchuria, and appeared near the coast of Northeastern Korea on the afternoon of the 19th. It traversed over Japan sea and Northeastern Japan, and passed away into the Pacific on the early morning of the 21st. L. B. 755 mm.
- X. *Secondary depression of the 22nd.*—developed near Kofu in central Japan on the afternoon of the 22nd, and passed into the Pacific, moving southeastwards. Northerly gale was experienced on the southeast coast of Japan proper. Thunderstorm occurred at Choshi on the night of the 22nd. It may be remarked that the secondary depression that develops in central Japan is in general attended by thunderstorm in summer, but rarely in winter. L. B. 754 mm.
- XI. *Continental depression of the 24th to the 26th.*—probably came from Man-



churia, appeared near Vladivostok on the afternoon of the 25th, and passed into Southern Kuriles, traversing Southern Hokkaido on the 26th.

L. B. 755 mm.

**March.**—During the present month, 17 lows were noted. Of these lows, ten passed along the Pacific coast, and the remaining 7 over the sea of Japan. Of these, six were continental depressions. Most of these depressions were areas of low barometer, and none of these caused no serious storm or high winds.

I. *Continental depression of the 1st to the 2nd*—probably came from the Yangtse valley and appeared near the northwest coast of Kiusiu on the 1st. It crossed over Western Japan and entered Japan sea on the early morning of the 2nd. Traversing northeastern Japan, the cyclone passed into the Pacific on the same day. L. B. 755 mm.

II. *Depression of the 1st to the 2nd*—appeared to the east of Amami-Oshima on the 1st, moved northeastwards and passed away into the Pacific on the 2nd. L. B. unknown.

III. *Continental depression of the 2nd to the 3rd*—came from Siberia, and appeared near the west coast of Hokkaido on the night of the 2nd. It crossed over Southern Hokkaido and entered the Pacific on the early morning of the 3rd. L. B. 755 mm.

IV. *Depression of the 2nd to the 3rd*—developed near the islands of Formosa on the 2nd, and moved northeastwards. Passing north of the island of Amami-Oshima, the depression entered the Pacific and travelled along the coast of Japan proper on the 4th. L. B. unknown.

V. *Continental depression of the 6th to the 7th*—came from Siberia and appeared near the west coast of Hokkaido on the early morning of the 7th. It crossed over Southern Hokkaido, and passed into the Pacific on the same day. Snowstorm has occurred in Southern Hokkaido during the visitation of the depression. L. B. 150 mm.

VI. *Secondary depression of the 7th*—developed near Mount Fujiyama on the afternoon of the 7th, and entered the Pacific, moving southeastwards. A cyclonic wind has developed around the centre, and a passing shower has been experienced several at localities in Southeastern Japan. L. B. 754 mm.

VII. *Secondary depression of the 8th*—developed near Mount Fujiyama on the afternoon of the same day, and passed southeastwards. L. B. 753 mm.

VIII. *Depression of the 10th to the 11th*—probably came from the Yellow sea,

and appeared in the western part of Japan sea on the afternoon of the 10th. The depression passed through the strait of Tsugaru on the early morning of the 11, and passed away into the Pacific, traversing Southern Hokkaido. A severe snowstorm was been experienced in Hokkaido during the visitation of the cyclone. L. B. 735 mm.

IX. *Continental depression of the 13th to the 16th*—developed in S. Mongolia on the 12th. Marching toward ENE the depression passed south of the Shangtong on the 13th, and appeared in Southern Yellow sea. It traversed over South Korea on the morning of the 14th, and travelled along the coast of Japan sea up to Northeastern Japan. Crossing over the Tsugaru provinces, the cyclone passed away into the Pacific. A rather severe snowstorm was been experienced in Northeastern Japan and Hokkaido on the 15th. L. B. 750 mm.

X. *Secondary depression of the 14th*—developed in Southern Shikoku on the afternoon of the 14th, moved along the coast at Tokaido, and passed away into the Pacific, touching on Cape Inuboye at 8 p.m. on the same day. Thunderstorm occurred on the west coast of the Kii peninsula on the same day. L. B. 745 mm.

XI. *Depression of the 17th to the 19th*—developed near the east coast of Formosa on the 16th, moved northeastward and entered the Pacific, passing between the islands of Okinawa and Oshima on the afternoon of the 17th. It appeared in the south of Cape Shiomisaki on the 18th, and passed northeastwards on the 19th. L. B. 753 mm.

XII. *Depression of the 20th to the 22nd*—appeared in the south of Formosa on the 20th, moved northeastwards and passed into the Pacific on the 21st, travelling along the north side of the Riuk'iu group. The depression passed by the island of Hachijo on the afternoon of the 22nd, causing a moderate rainstorm on our southeast coast. L. B. 750 mm.

XIII. *Depression of the 23rd to the 25th*—appeared in the south of Formosa on the 23rd, moved northeastwards, and travelled over the Pacific coast of Japan on the 24th. The depression passed into the Pacific from our east coast on the 25th. General rainfall occurred in Japan proper during the visitation of the depression. L. B. 750 mm.

XIV. *Continental depression of the 24th to the 25th*—appeared in the south of Irkutsk on the 21st, and moved southeastwards. On the 22nd, the depression was in the northwest of Tientsin. On the 23rd, the centre of depression was deflected by an area of high barometer that was occupying in Eastern



Siberia, and descended towards SSE. The cyclonic centre arrived the straits of Tsushima where it changed its course towards NE on the 24th. Traversing Southern Japan sea the depression approached to the west coast of Hokkaido on the 25th, and finally passed into the Pacific, crossing over Southern Hokkaido. L. B. 754 mm.

XV. *Depression of the 26th to the 27th.*—appeared near the east coast of Formosa on the afternoon of the 26th, and rapidly moved on a southeasterly course. After passing north of the island of Amami-Oshima on the night of the same day, the area of low barometer entered the Pacific, and thence travelled along the coast of Japan. It passed by the island of Hachijo on the afternoon of the 27th. L. B. 755 mm.

XVI. *Depression of the 26th to the 28th.*—first noticed in the southern part of Japan sea on the night of the 27th, moved along the coast of Japan sea up to the west coast of Hokkaido where it finally filled up on the 28th.

L. B. unknown.

XVII. *Depression of the 31th.*—first noted near the southeast coast of Formosa at 6 a.m. of the 31th. The depression moved eastwards, and passed south of the Okinawajima on the afternoon of the same day, causing a thunderstorm in Southern Ryukiu. L. B. 757 mm.

**April.**—During the present month fifteen depressions passed over the empire and neighbouring seas. A few of them were well developed cyclones, and caused rough weather over the country.

I. *Continental depression of the 1st to the 2nd.*—developed in the upper valley of the Yangtsekiang on the 30th of March, and passed South of Shanghai on the night of the 31th. On the early morning of the 1st of April the depression entered Japan sea through the straits of Korea, and travelled along our northwest coast up to Northern Hokkaido on the 2nd. After crossing over the latter district the cyclone passed away into the Okhotsk on the night. L. B. 746 mm.

II. *Secondary depression of the 1st to the 2nd.*—developed in the Peninsula of Kii on the night of the 1st, and went towards NE, causing squally weather in Southeastern Japan. The depression seems to have entered the Pacific, in the neighbourhood of Mito in Eastern Japan on the 2nd.

L. B. 745 mm

III. *Continental depression of the 5th to the 7th.*—developed in the upper valley of the Yangtsekiang on the 5th, advanced toward NE and entered Japan sea through the Korea straits on the 6th. The depression traversed over

Southern Hokkaido, and passed into the Pacific on the early morning of the 7th. L. B. 754 mm.

IV. *Depression of the 5th to the 7th.*—appeared in the Formosan channel on the afternoon of the 5th, moved northeastwards and passed into the Pacific, after traversing Southern Kiushiu on the 6th. The depression attended thunderstorm near its centre. L. B. 746 mm.

V. *Depression of the 6th to the 7th.*—first noticed near the west coast of Japan on the night of the 6th, traversed central Japan and entered the Pacific on the 7th. L. B. 746 mm.

VI. *Continental depression of the 9th to the 10th.*—developed to the south of Chongking in the upper Yangtse valley on the 7th. Advancing slowly toward ENE the depression passed south of Kiukiang on the evening of the 8th, and near Shanghai about noon of the 9th. The depression arrived to the south of the Islands of Goto on the early morning of the 10th, and thence it travelled along the west coast of Japan, and filled up in the neighbourhood of the Island of Sado on the night of the same day.

L. B. 754 mm.

VII. *Depression of the 9th to the 10th.*—probably came from the sea east of Formosa. It was first noticed in the north of the Yaeyama group on the night of the 9th. Moving toward NE the depression crossed over Southern Kiushiu, and passed away into the Pacific on the 10th. L. B. 757 mm.

VIII. *Continental depression of the 9th to the 12th.*—developed in the south of Chongking on the 10th. Moving towards the east the depression traversed the Eastern sea and Japan proper from the 11th to the 12th, and passed away into the Pacific. L. B. 748 mm.

IX. *Depression of the 10th to the 13th.*—came from the Eastern sea on the 10th, and travelled on the Pacific coast of Japan on the 12th, causing stormy weather in Southeastern Japan. L. B. 746 mm.

X. *Depression of the 14th to the 15th.*—appeared to the southeast of Formosa on the 14th, moved at first toward NNE and then to the NE. Passing by the Island of Tanegashima about noon of the 15th, the depression passed into the Pacific. L. B. 760 mm.

XI. *Depression of the 17th to the 19th.*—came from the sea south of the Yaeyama group on the 17th, moved towards NE and passed away into Northern Japan sea on the 19th. L. B. 759 mm.

XII. *Depression of the 18th to the 20th.*—came from the south of the Formosa channel on the morning of the 18th, moved towards NE and traversed over



the Eastern sea on the 18th. The depression travelled on the Pacific coast and went away into the Pacific in the neighbourhood of Mito on the 20th. L. B. 755 mm.

XIII. *Depression of the 21st.*—came from the sea south of Formosa on the morning of the 21st, moved towards NE and passed away into the Pacific on the night of the 21st. L. B. 762 mm.

XIV. *Depression of the 24th to the 25th.*—came from the sea south of Formosa on the night of the 24th, moved northeast and traversed the Eastern sea on the 25th. After passing near the island of Tanegashima the cyclone passed into the Pacific. L. B. 758 mm.

XV. *Secondary depression of the 27th.*—developed near Kofu in Central Japan about noon of the 27th, and entered the Pacific, moving Southeastwards. L. B. 753. mm.

**May.**—During the present month sixteen barometric depressions passed over the empire and neighbouring seas. Most of them were low areas of moderate intensity and caused no serious storms over this country.

I. *Depression of the 1st to the 3rd.*—appeared near the east coast of Formosa on the afternoon of the first. Moving toward NE the depression traversed over the Eastern sea on the 2nd, and travelled over the Pacific coast of Japan proper on the 3rd. A rather severe storm has occurred in the Eastern Japan. L. B. 748 mm.

II. *Continental depression of the 3rd.*—came from the Yellow sea on the 2nd, moved northeastward and passed into the Pacific, traversing Northern Hokkaido. L. B. 744 mm.

III. *Continental depression of the 4th to the 5th.*—probably came from the Gulf of Tartary, crossed over Hokkaido on the 4th, and passed away into the Pacific on the morning of the 5th. L. B. 744 mm.

IV. *Depression of the 7th to the 8th.*—appeared in the northern part of the Formosan channel on the 6th, moved northeastwards, and traversed over the Eastern sea and Central Korea on the 7th. Thence the depression travelled over Japan sea, and passed away into the Okhotsk on the 8th. Severe storm occurred on the coast of Japan sea and in Southern Korea. L. B. 740 mm.

V. *Continental depression of the 7th to the 8th.*—developed to the Southwest of Tientien on the 5th, moved toward SE and passed by Nagasaki on the afternoon of the 7th. Thence the depression crossed over Northern Kiushiu,

and passed into the Pacific on the night of the 7th. On the morning of the 8th the depression was found passing southeastward over the sea off Cape Shiwomisaki. L. B. 747 mm.

VI. *Continental depression of the 11th to the 12th.*—came from the upper valley of the Yangtsekiang, and appeared in the Yellow sea on the afternoon of the 11th. Moving toward NE the depression crossed over Central Korea and Japan sea, and passed away into the Pacific through the straits of Tsugaru on the night of the same day. L. B. 755 mm.

VII. *Depression of the 12th to the 13th.*—appeared in the straits of Korea on the afternoon of the 12th, moved Southeastward and entered the Pacific, after crossing over Western Shikoku on the 13th. L. B. 755 mm.

VIII. *Secondary depression of the 13th.*—developed near Matsunoto about noon of the 13th, moved northeastward and arrived to the north of Akita on the night. Probably the depression filled up there on the same day. L. B. 750 mm.

IX. *Depression of the 14th to the 15th.*—appeared in the Southern Japan sea on morning of the 14th, moved northeastwards and passed into Okhotsk on the night of the 15th. L. B. 750 mm.

X. *Secondary depression of the 15th.*—developed near Mito on the east coast on the morning of the 15th, and passed northeastward into the Pacific. L. B. 753 mm.

XI. *Continental depression of the 17th to the 18th.*—appeared to the west of Vladivostock on the 17th, moved toward NE, and entered the Okhotsk crossing Southern Saghalien on the 18th. Southerly strong gale occurred. L. B. 748 mm.

XII. *Depression of the 18th to the 21st.*—first noticed near the east coast of Formosa on the afternoon of the 18th. Moving northeastward the depression travelled over the Eastern sea, the Pacific coast of Japan proper and entered the Pacific on the 21st. Stormy weather occurred in Japan proper on the 20th and 21st. L. B. 748 mm.

XIII. *Secondary depression of the 20th to the 21st.*—developed near Shimonoeki on the afternoon of the 20th, moved northeastwards and passed away into the Okhotsk on the 21st, causing southerly gale in Hokkaido. L. B. 747 mm.

XIV. *Depression of the 23rd to the 24th.*—appeared near Foochow on the early morning of the 23rd, moved towards NE and arrived to Southern Kiushiu



on the night of the 23rd. Moving towards SE the depression passed into the Pacific on the 24th. L. B. 255 mm.

XV. *Continental depression of the 27th to the 28th.*—developed in the upper valley of the Yangtsekiang, and was found to be lying between Chonking and Ichang on the 27th. Advancing along the river the cyclone passed by Shanghai on the evening of the 26th, and arrived to Western Kiushiu on the morning of the 28th. The depression passed into the Pacific crossing over Southern Kiushiu on the same day.

L. B. 750 mm.

XVI. *Secondary depression of the 29th to the 30th.*—developed in the plateau of Central Japan on the Pacific, causing northerly gale on our Southeast coast on the 30th. L. B. 748 mm.

June.—During the present month 10 depressions were traced. All of them were low areas of no special importance.

I. *Depression of the 5th to the 6th.*—The depression was first noticed to the ENE of Luzon on the 4th. On the early morning of the 5th the depression appeared to the east of the Yaeyama group, and continued its northeasterly march. After travelling over the Pacific south of Southern Japan the depression passed northeastward. L. B. 753 mm.

II. *Continental depression of the 10th to the 11th.*—probably came from North China on the 9th and made its way toward the east. It was found passing near Wladivostock on the afternoon of the 10th. After crossing over Northern Japan sea the cyclone passed through the straits of Soya on the afternoon of the 11th, and went away into the Okhotsk. L. B. 750 mm.

III. *Depression of the 10th to the 11th.*—appeared near Quelpart island on the 10th, moved eastward and travelled over Shikoku and Southern Kii peninsula on the 11th. It passed into the Pacific on the night of the same day. L. B. 753 mm.

IV. *Depression of the 13th to the 14th.*—developed in the northern part of Formosan Channel on the night of the 13th. Moving toward NE the depression arrived near the west coast of Kiushiu on the 14th, and disappeared there. L. B. 752 mm.

V. *Continental depression 22nd to the 23rd.*—appeared in the middle Yangtse valley on the 22nd, moved toward NE and entered the Yellow sea. Crossing over central Korea the depression passed into the sea of Japan on the 23rd. Owing to the sparseness of data the track of the depression could not be traced with certitude. L. B. unknown.

VI. *Secondary depression of the 23rd to the 24th.*—developed near the west coast of Japan proper on the afternoon of the 23rd, and arrived to the neighbourhood of Niigata on the morning of the 24th. The depression filled up there. L. B. 753 mm.

VII. *Continental depression of the 24th to the 25th.*—came from the Peninsula of Shangtung on the 24th. Moving toward SE the depression arrived to the neighbourhood of Quelpart island where it recurved toward the east. The cyclone travelled over the Inland sea district and the plateau of central Japan on the 25th, and passed away into the Pacific from our east coast.

L. B. 749 mm.

VIII. *Continental depression of the 25th to the 26th.*—came from Manchuria on the 25th, and appeared to the west of Vladivostock on the evening of the day. Making its way toward E the depression crossed over Northern Japan sea and Southern Hokkaido and passed away into the Pacific on the night of the 26th. Threatening weather was experienced in Hokkaido during the visitation of the cyclone. L. B. 748 mm.

IX. *Depression of the 28th to the 29th.*—came from the Eastern sea of China on the 28th, and travelled along the Pacific coast of Southern Japan on the 29th. L. B. 754 mm.

X. *Depression of the 29th to the 30th.*—developed in Northern Formosa on the afternoon of the 29th, and entered the Pacific on the 30th moving toward ENE. L. B. 753 mm.

July.—During the present month 12 barometric depressions passed over the empire and neighbouring seas. With a single exception of the typhoon which visited this country from the 5th to the 8th, they were of moderate nature, and caused no serious storms.

I. *Depression of the 4th to the 5th.*—appeared near the Goto group on the afternoon of the 4th, and arrived to the neighbourhood of Matsuyama crossing over Northern Kiushiu. The depression filled up there on the morning of the 5th. L. B. 753 mm.

II. *Depression of the 5th.*—appeared off our South coast on the early morning of the 5th, moved toward the northeast, and disappeared from our area on the evening of the same day. L. B. 755 mm.

III. *Continental depression of the 5th.*—came from the Amur district on the morning of the 5th, and passed into the Okhotsk, traversing Southern Saghalien on the night of the same date. L. B. unknown.



IV. *Typhoon of the 5th to the 8th.*—This typhoon was first noticed to the northeast of Luzon on the 5th. It approached the east coast of Formosa on the night of the same day. On the 6th the typhoon crossed over Northern Formosa and the channel and arrived in the neighbourhood of Foochow where it recurred toward the northeast. At Taihoku the barometer fell to 741.5 mm. at 8.30 a.m. on the same day, and several flashes of lightning were observed.

After traversing the Eastern sea the typhoon approached Western Kiushiu on the night of the 7th, and travelled over the Island Shikoku, and the southern part of the peninsula of Kii on the 8th. Thence, it passed eastward along our southeast coast, and disappeared from the limit of our area on the afternoon of the same day. Severe storm occurred in this country, and caused a great deal of damages in the prefectures over which the centre passed. The rainfall attended to the typhoon was enormous; On the 7th heavy rain fell on the west coast of Kiushiu; and the total amount for the day exceeded 100 mm. at several localities on the coast. On the 8th, precipitation more than 200 mm. was observed at Hamamatsu on the southeast coast of Japan proper. As the consequence of the excessive rainfall several rivers rose rapidly, and flowed over their banks, causing enormous loss of plantations and property. L. B. 741 mm.

V. *Secondary depression of the 8th.*—developed in the Bay of Wakasa on the early morning of the 8th. Moving northeastward the depression crossed over Northern Hokkaido, and passed away into Southern Kuriles on the night of the same day. L. B. 750 mm.

VI. *Depression of the 9th to the 11th.*—Probably came from the eastern sea of Formosa on the 9th. Moving toward NE the depression passed through the straits of Tsushima on the night of the 10th, and travelled over Japan sea toward Southern Saghalien on the 11th. L. B. 748 mm.

VII. *Continental depression of the 11th to the 13th.*—Appeared in the Southern part of Japan sea on the night of the 11th. Moving southeastward the depression crossed over Western Japan on the 12th, and passed into the Pacific, causing rainfall over Japan proper. L. B. 745 mm.

VIII. *Continental depression of the 14th to the 15th.*—developed to the north of Ichang in the upper valley of the Yangtsekiang on the 13th. Making its way toward ENE the cyclone passed the neighbourhood of Tsingtao on the afternoon of the 14th, and continued its eastward movement. After traversing over Japan sea the depression got into the Pacific, crossing Southern Hokkaido on the 15th. L. B. 752 mm.

IX. *Depression of the 17th to the 19th.*—first noticed in the strait of Korea on the afternoon of the 16th. Moving toward NE the depression crossed over Eastern Japan, and passed away into the Pacific on the night of the 19th.

L. B. 747 mm.

X. *Depression of the 19th to the 20th.*—appeared in the Yellow sea on the early morning of the 19th, traversed over Southern Korea Japan sea and northeastern Japan, and passed into the Pacific on the 20th.

L. B. 751 mm.

XI. *Continental depression of the 22nd to the 23rd.*—came from Amur district on the night of the 22nd, and passed into the Okhotsk on the 23rd.

L. B. unknown.

XII. *Continental depression of the 26th to the 27th.*—came from amur district on the 26th, moved SE ward passed into the Pacific, crossing over southern Hokkaido on the night of the 26th. L. B. 752 mm.

**August.**—During the present month seven barometric depressions were traced. Two of them were typhoons of unusual violence. The typhoon of the 17th to the 19th is one of the memorable storms that visited this country in recent times.

I. *Continental depressions of the 4th to the 5th.*—Came from Eastern Siberia on the 4th, and entered the sea of Okhotsk, passing through the strait of Soya on the morning of the 5th. Thence, the depression crossed Southern Kuriles, and passed away into the Pacific on the night of the same day.

L. B. 755 mm.

II. *Continental depression of the 6th to the 8th.*—Appeared in the sea off Western Hokkaido on the afternoon of the 6th, and passed into the Okhotsk, traversing the strait of Soya on the morning of the 7th.

L. B. 753 mm.

III. *Depression of the 7th to the 8th.*—First noted in the strait of Korea on the early morning of the 7th. It moved northeastwards and travelled along the west coast of Japan proper. On the 8th it passed into the Pacific, traversing northeastern Japan.

L. B. 755 mm.

IV. *Continental depression of the 12th.*—came from Eastern Siberia and passed into the Okhotsk, traversing Southern Saghalien on the 12th.

L. B. unknown.

V. *Typhoon of the 17th to the 19th.*—Appeared in the sea southeast of the Okinawa islands on the 17th, moved rapidly northwards and approached



the South coast of Kiushiu on the early morning of the 19th. After traversing Kiushiu and the western part of the Inland sea district, the typhoon passed into the sea of Japan on the afternoon of the 19th. Thence, the cyclone travelled over Japan sea, and passed away into the interior of Eastern Siberia. A heavy storm occurred in Western Japan on the 19th, and resulted in a great damage. A fuller description of this storm will be given in the next chapter. L. B. 717 mm.

VI. *Typhoon of the 22nd to the 25th.*—First noted in the sea southeast of the Riukiu on the night of the 22nd. The typhoon moved at first towards the northwest, and entered the Eastern sea of China, passing south of the Oshima on the morning of the 23rd. Arriving on the 29th parallel of latitude the cyclonic centre recurved its course towards NE, and travelled along the west coast of Kiushiu on the 24th. After traversing the strait of Tsushima, it passed over Japan sea and disappeared in the interior of Siberia on the 25th. L. B. 738 mm.

VII. *Typhoon of the 25th to the 27th.*—Appeared in the sea northeast of Luzon on the 25th, and moved northwestward. After crossing northern Formosa on the night of the 26th, the typhoon entered the Formosan channel, and passed into the continent. Heavy rain fell in Northern Formosa during the visitation of the cyclone. L. B. 748 mm.

**September.**—During the present month nine barometric depressions were traced. Two of them were typhoons of unusual violence. The typhoon of the 26th to the 29th was most remarkable rotatory storm; it crossed over Southeastern Japan, and caused severe tempest over this country. The centre of the typhoon was very deep, and the barometer fell to 718 mm at the town of Hamamatsu near which the centre passed.

I. *Continental depression of the 1st to the 3rd.*—first noticed in the Liaotung peninsula on the morning of the 1st, moved eastwards, and crossed over North Korea on the same day. After entering Japan sea the depression made its way toward NE, and passed away into the Okhotsk on the 2nd. L. B. 757 mm.

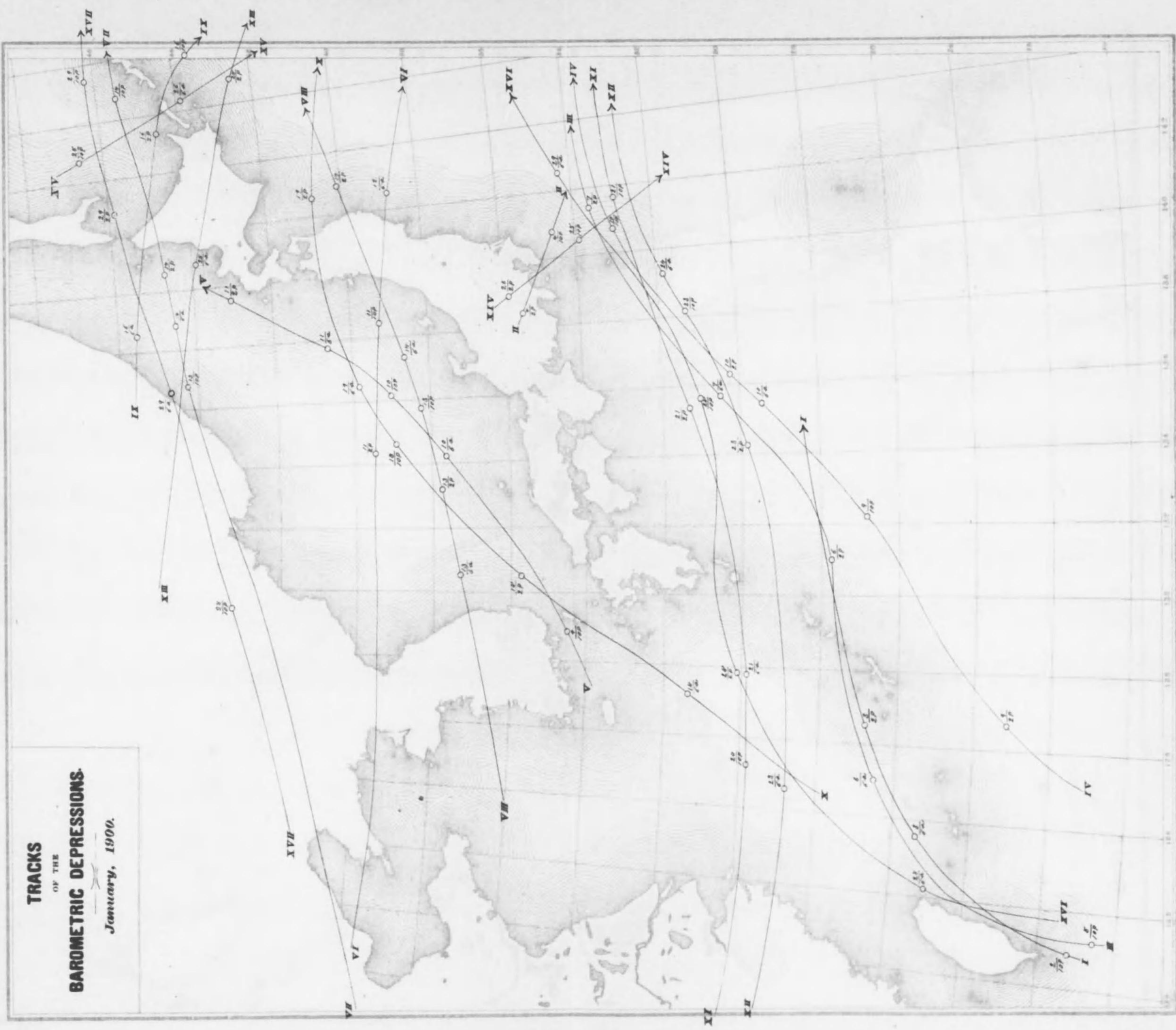
II. *Continental depression of the 2nd to the 4th.*—first noticed in central Korea on the afternoon of the 2nd. It moved northeastwards, and passed into the Okhotsk on the 4th, after it traversing Japan sea and Southern Saghalien. L. B. 755 mm.

III. *Depression of the 5th to the 10th.*—developed in the Eastern sea of China on the 5th. Moving towards the northeast the depression passed through



PL. I.

**TRACKS**  
OF THE  
**BAROMETRIC DEPRESSIONS.**  
January, 1900.





Pl. I.

TRACKS  
... 1114  
BAROMETRIC DEPRESSIONS  
January, 1900.





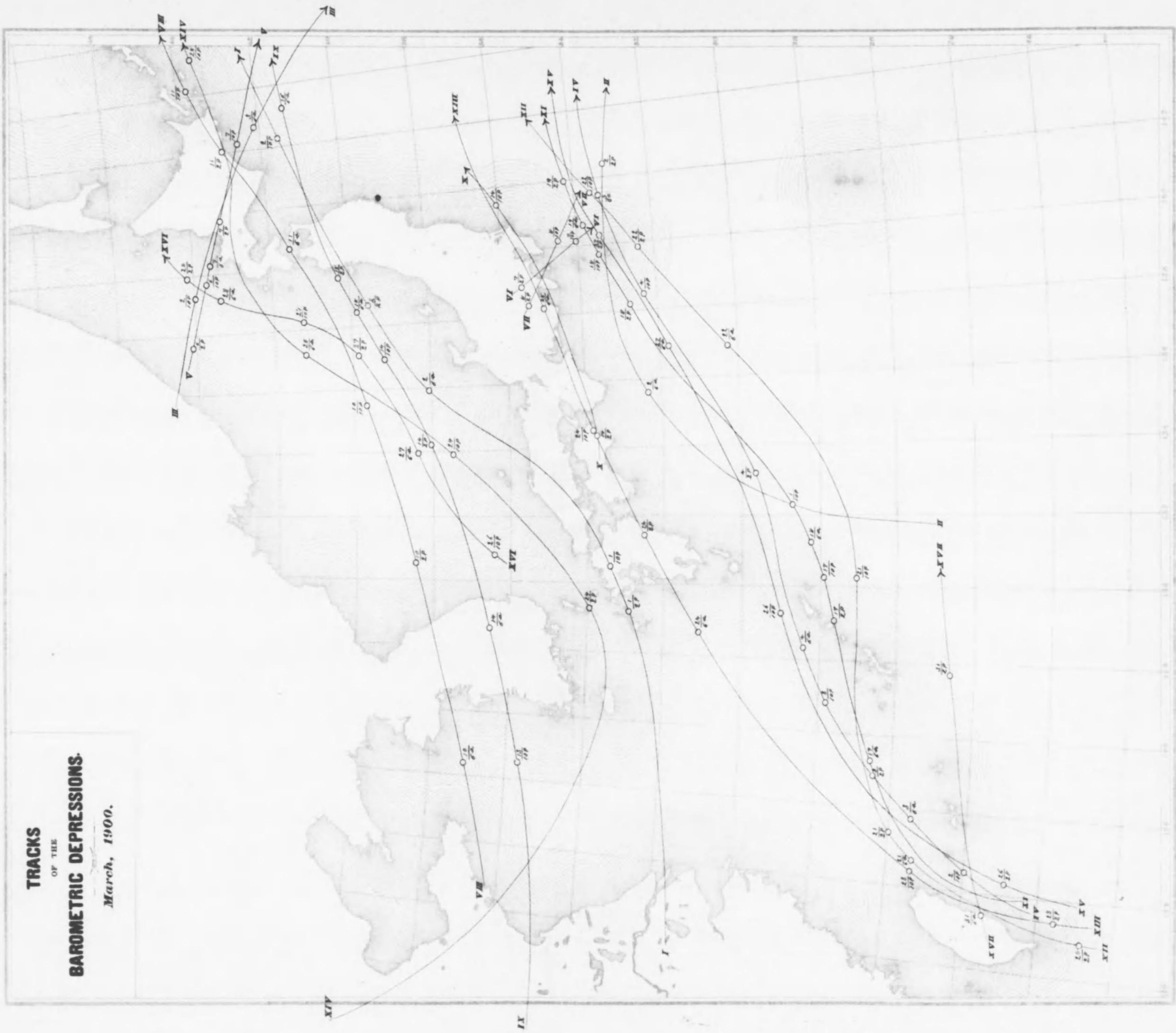
**TRACKS**  
OF THE  
**BAROMETRIC DEPRESSIONS.**  
February, 1900.





PL. III.

TRACKS  
OF THE  
BAROMETRIC DEPRESSIONS.  
March, 1900.





露光量違いの為重複撮影

PL. III.

TRACKS  
OF THE  
BAROMETRIC DEPRESSIONS

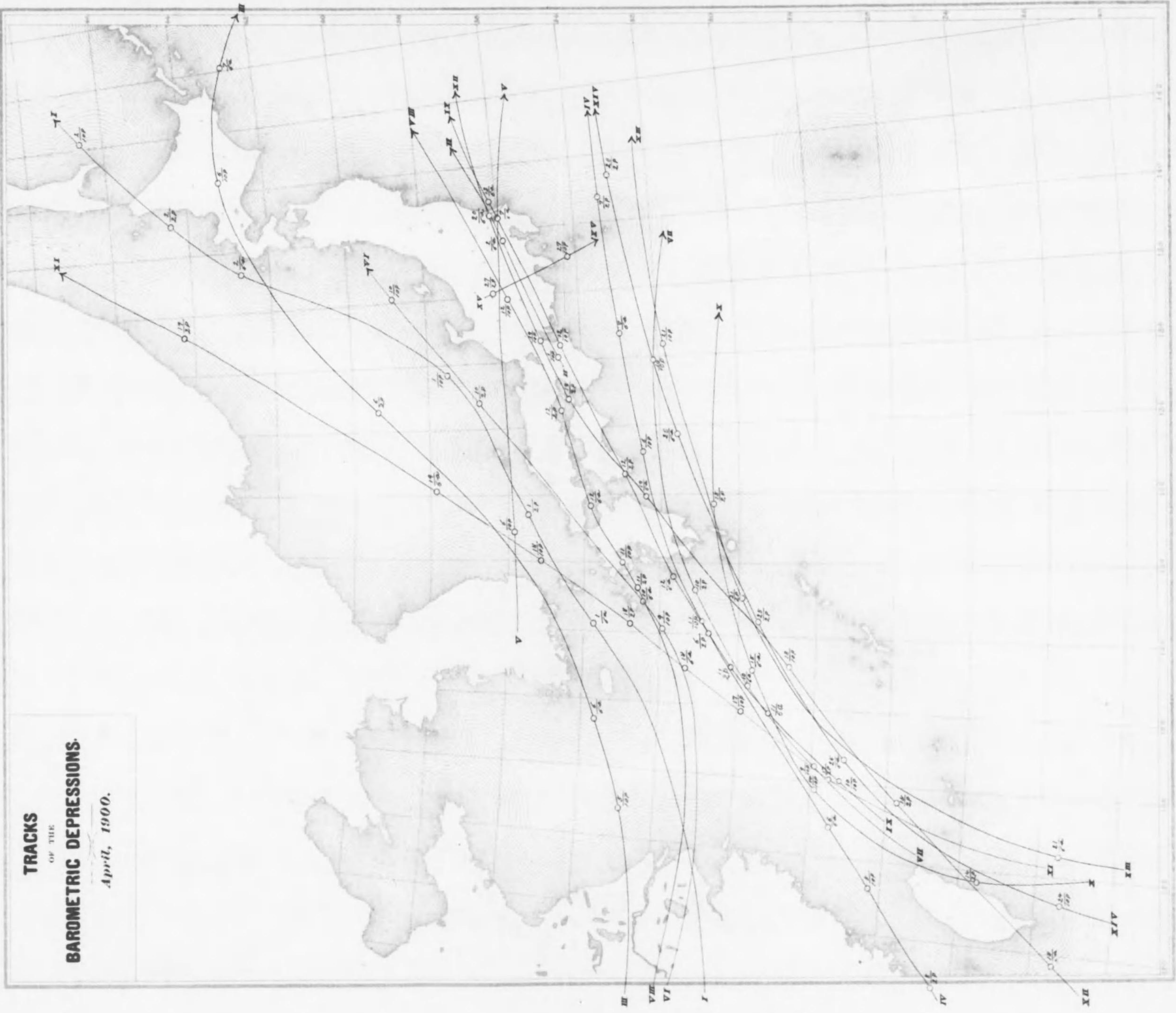
March, 1900.





PL. IV.

TRACKS  
OF THE  
BAROMETRIC DEPRESSIONS.  
April, 1900.





露光量違いの為重複撮影

PL. IV.

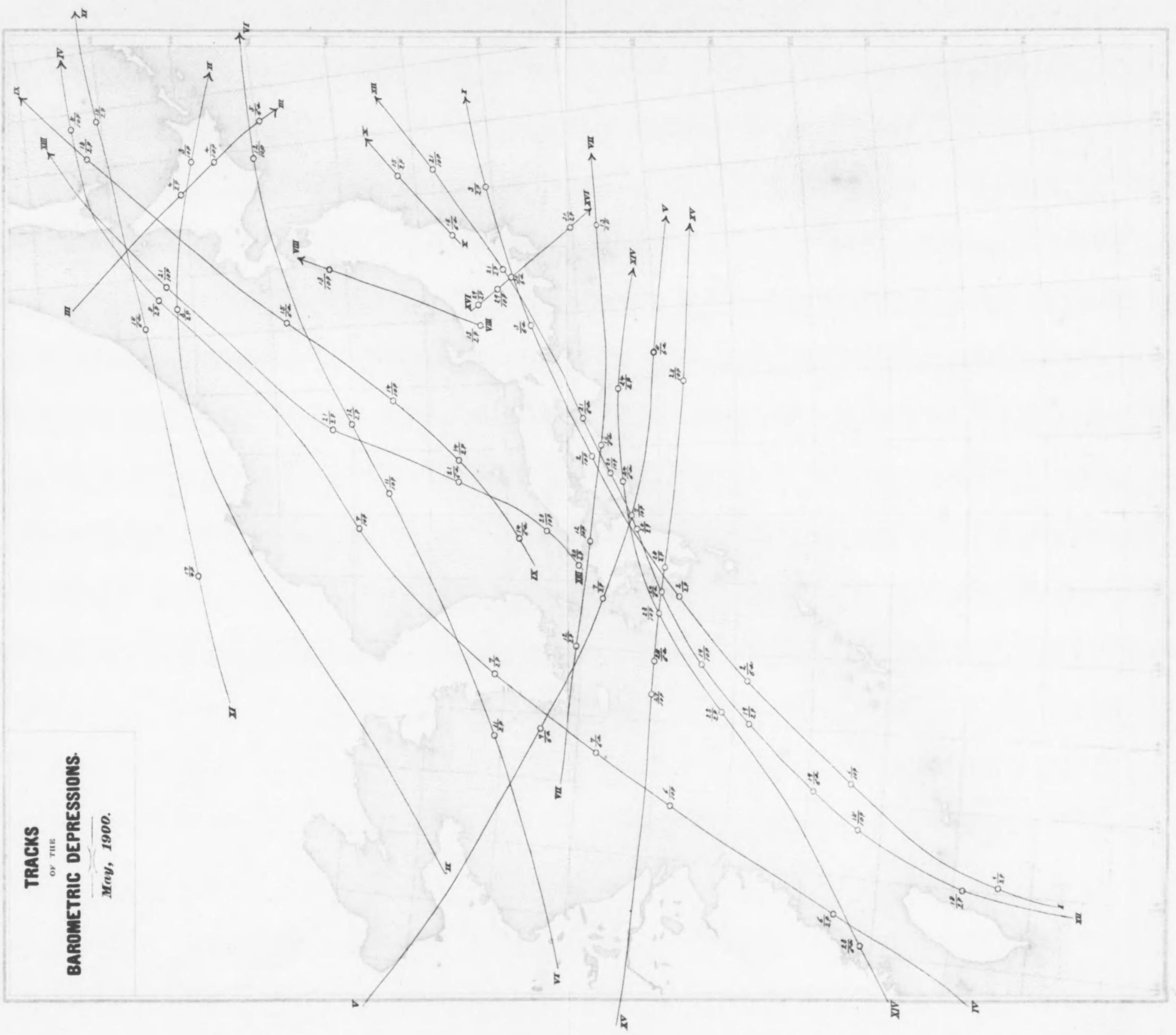
TRACKS  
BAROMETRIC DEPRESSIONS

April, 1966.





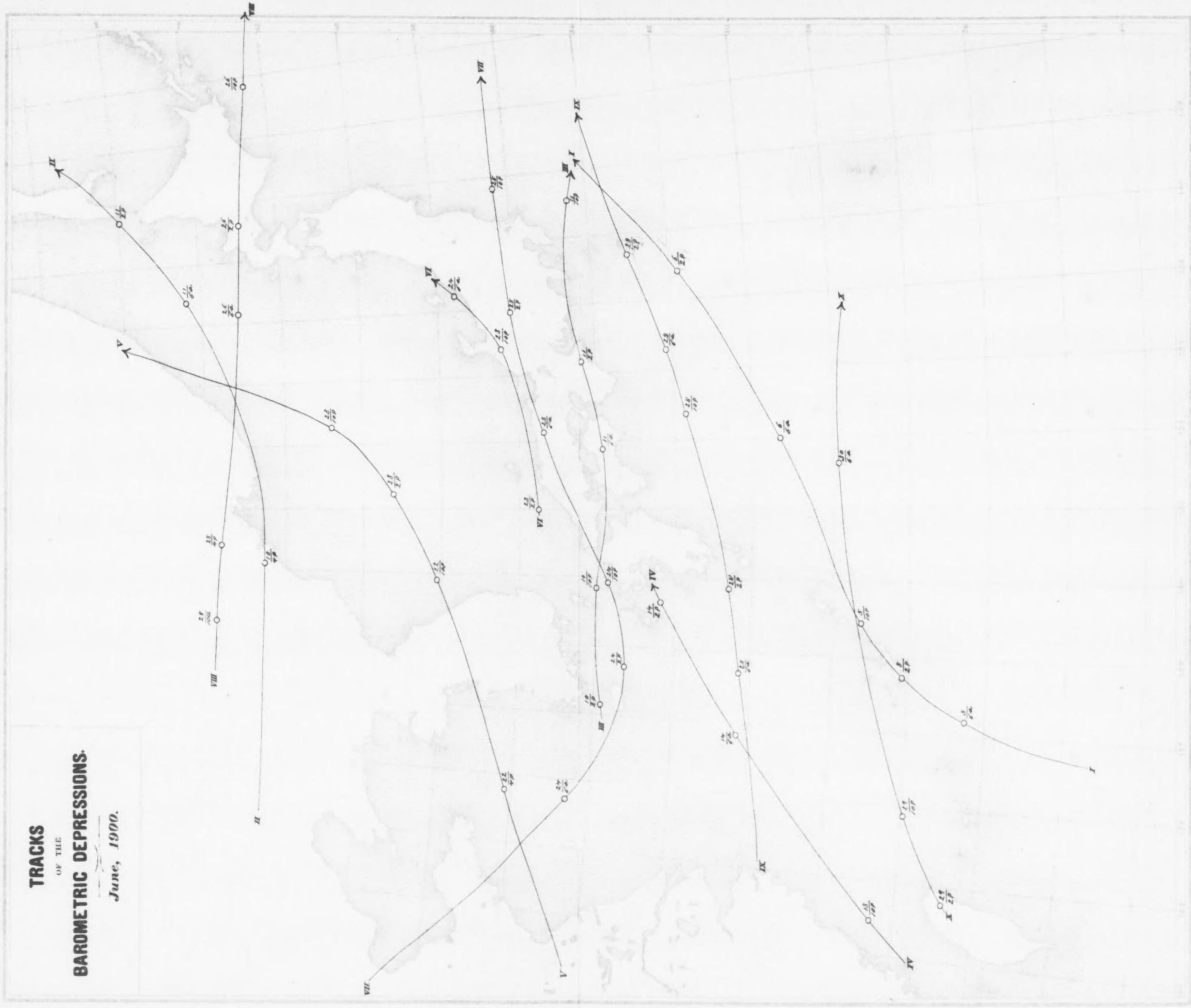
PL. V.



**TRACKS**  
OF THE  
**BAROMETRIC DEPRESSIONS.**  
May, 1900.

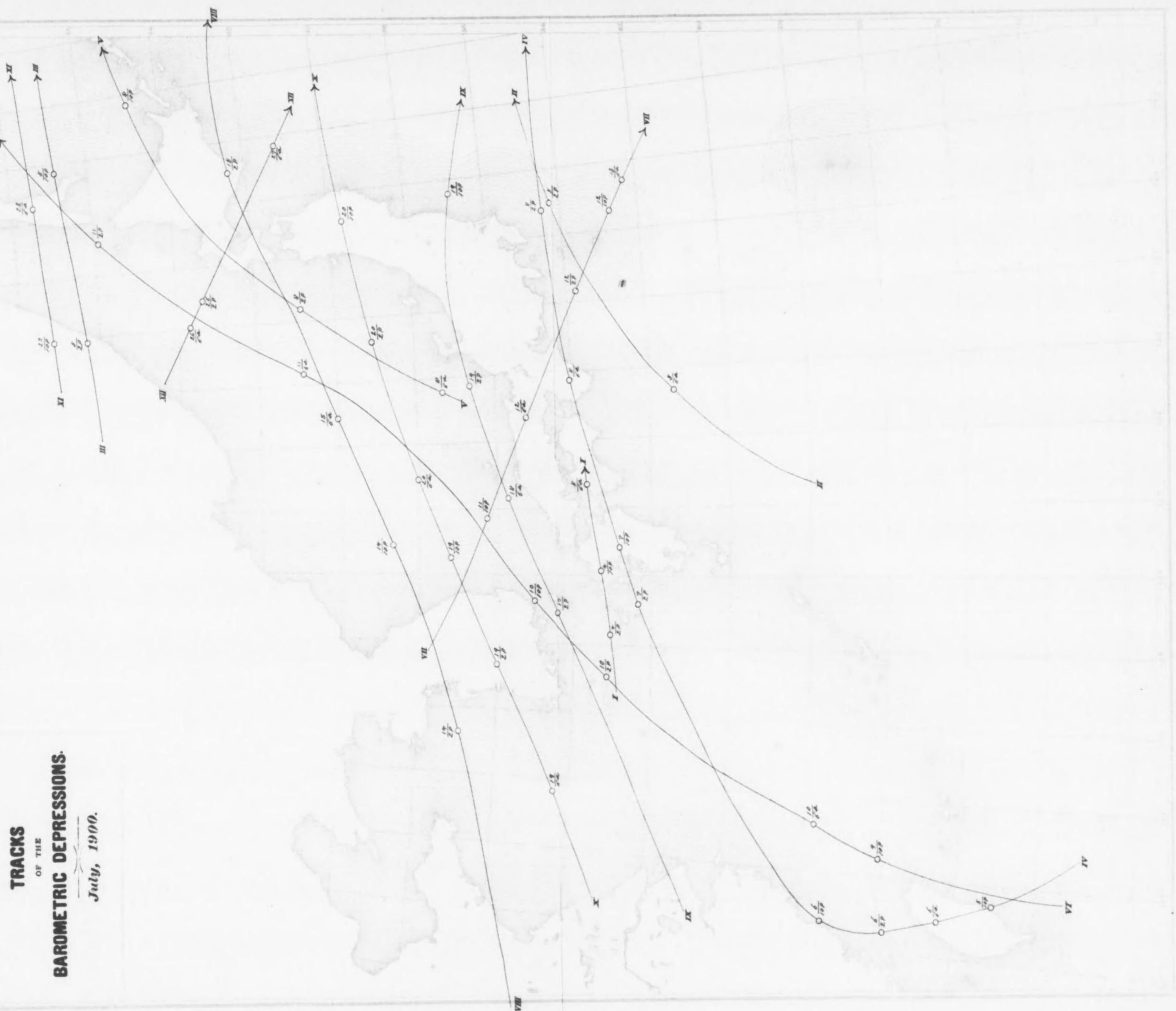


**TRACKS**  
OF THE  
**BAROMETRIC DEPRESSIONS.**  
June, 1900.





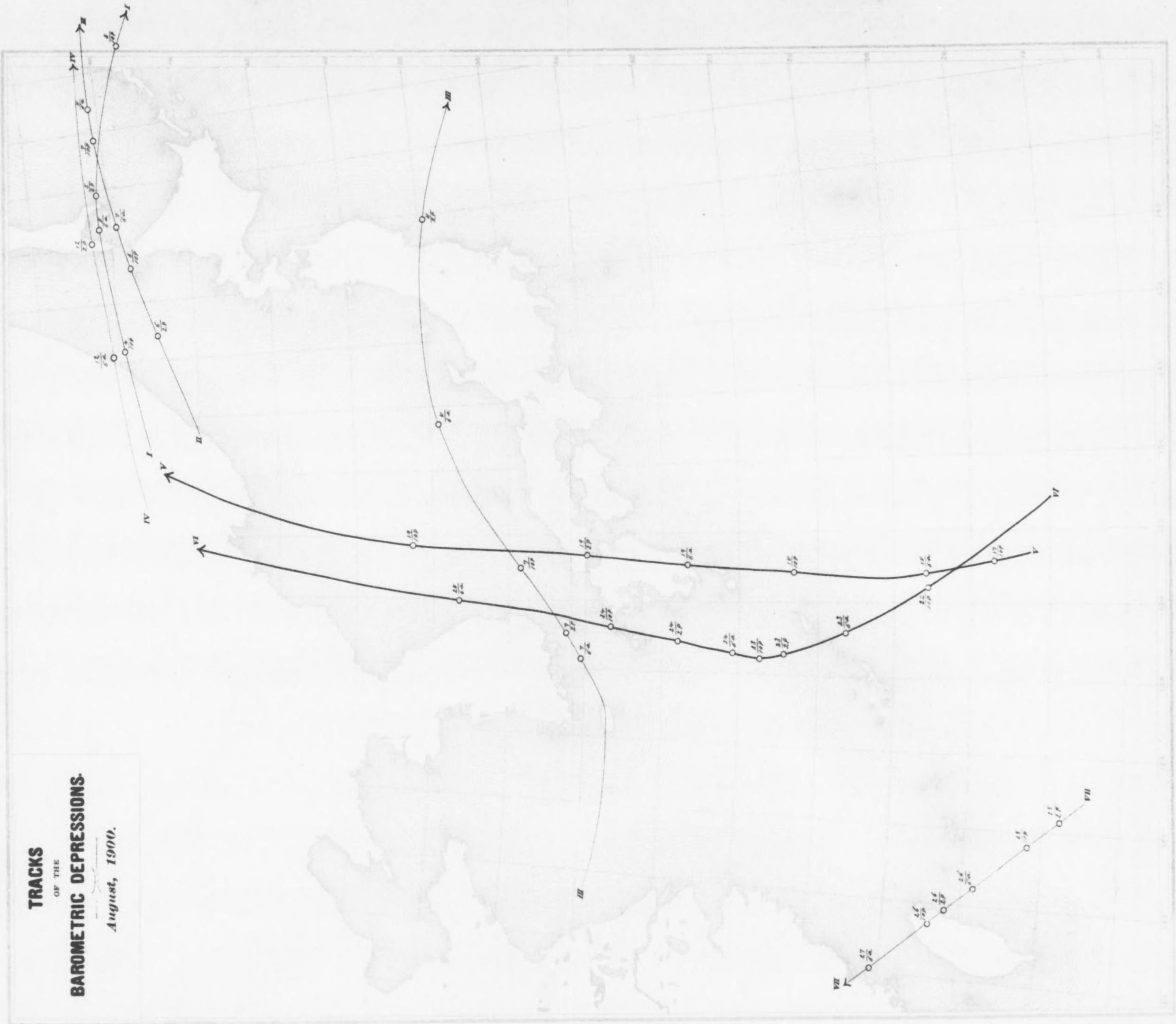
PL. VII.



**TRACKS**  
OF THE  
**BAROMETRIC DEPRESSIONS.**  
July, 1900.

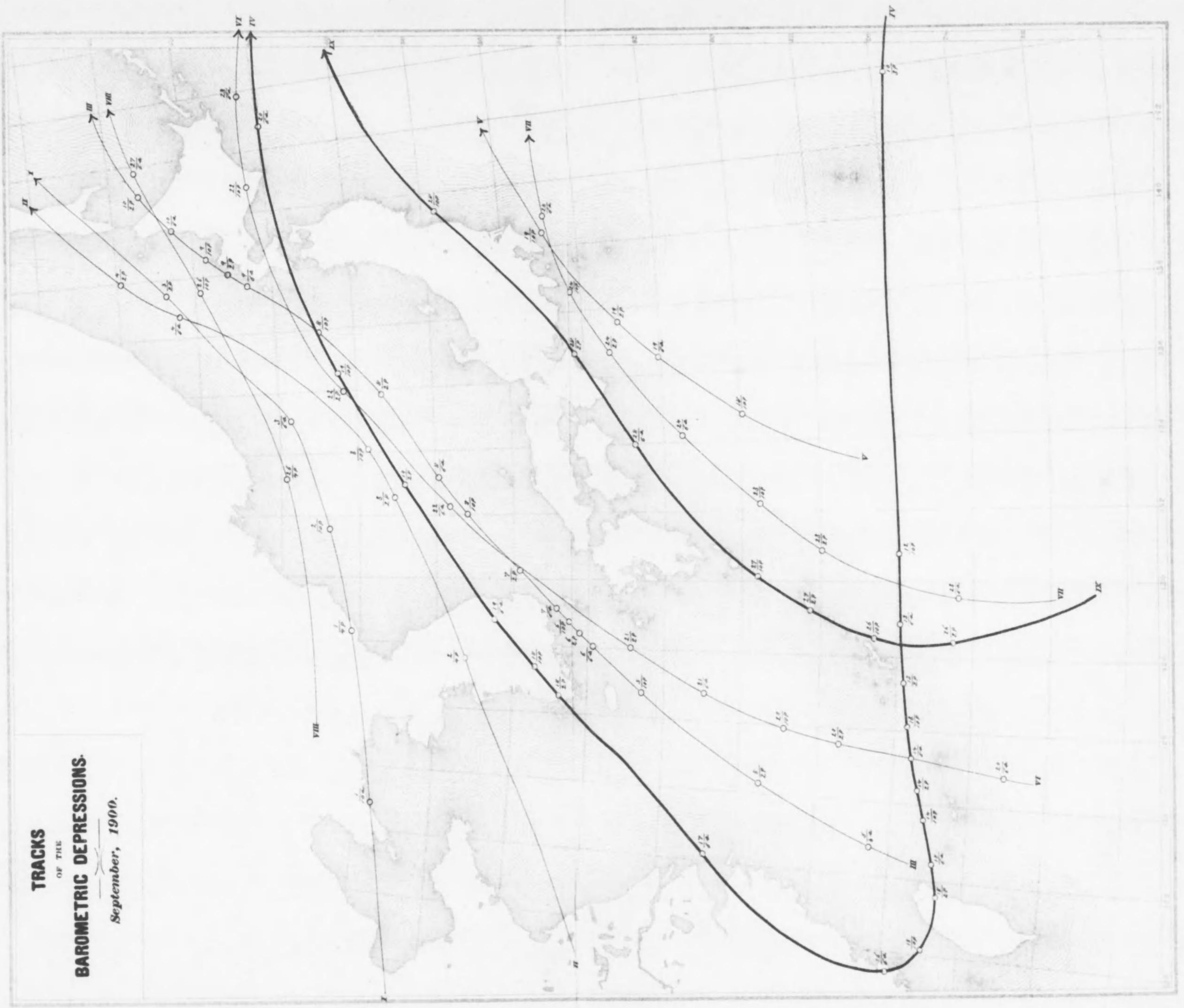


**TRACKS**  
OF THE  
**BAROMETRIC DEPRESSIONS.**  
August, 1900.



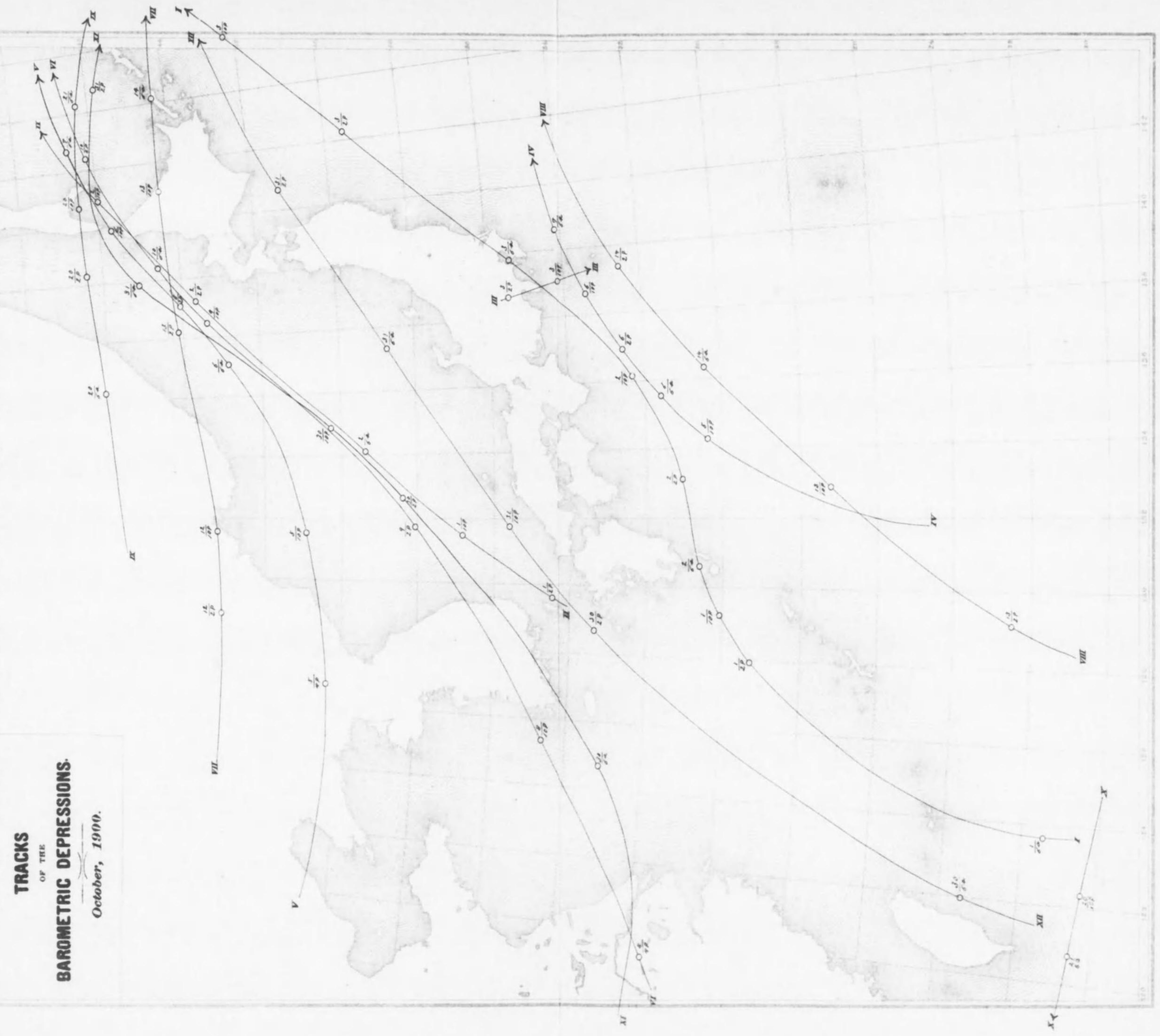


**TRACKS**  
OF THE  
**BAROMETRIC DEPRESSIONS.**  
September, 1900.





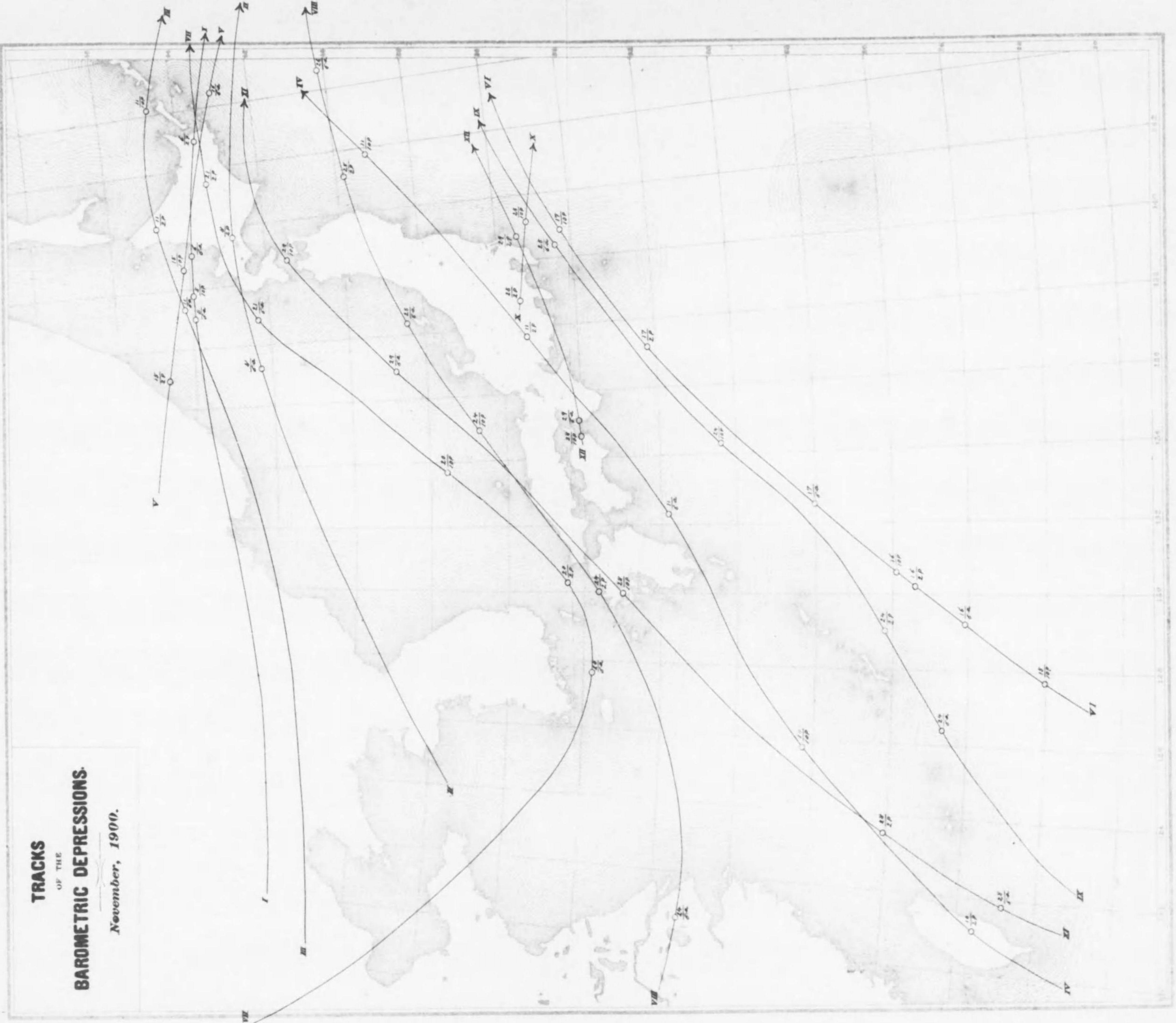
PL. X.



**TRACKS**  
OF THE  
**BAROMETRIC DEPRESSIONS.**  
October, 1900.

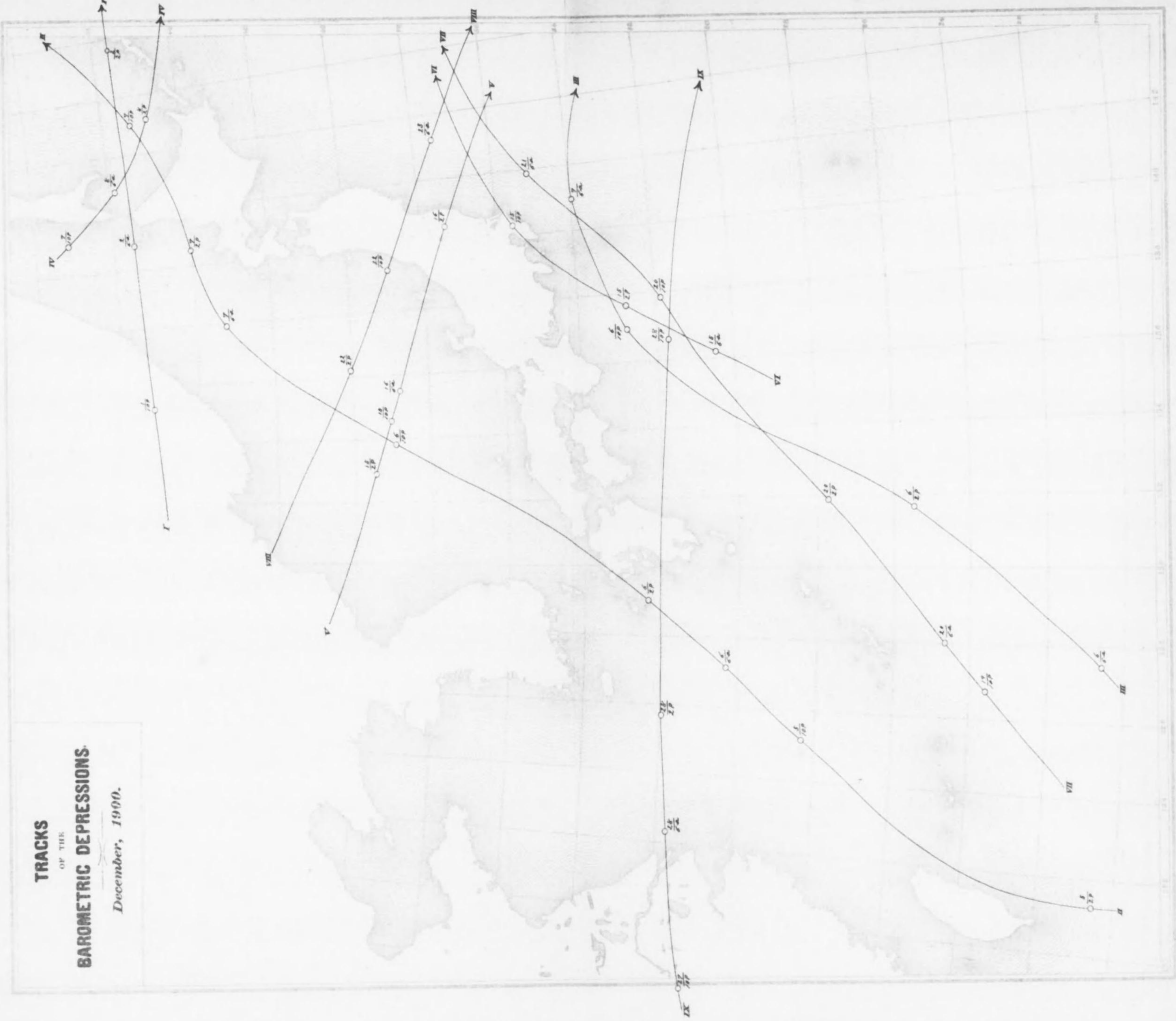


**TRACKS**  
OF THE  
**BAROMETRIC DEPRESSIONS.**  
November, 1900.





**TRACKS**  
OF THE  
**BAROMETRIC DEPRESSIONS.**  
*December, 1900.*



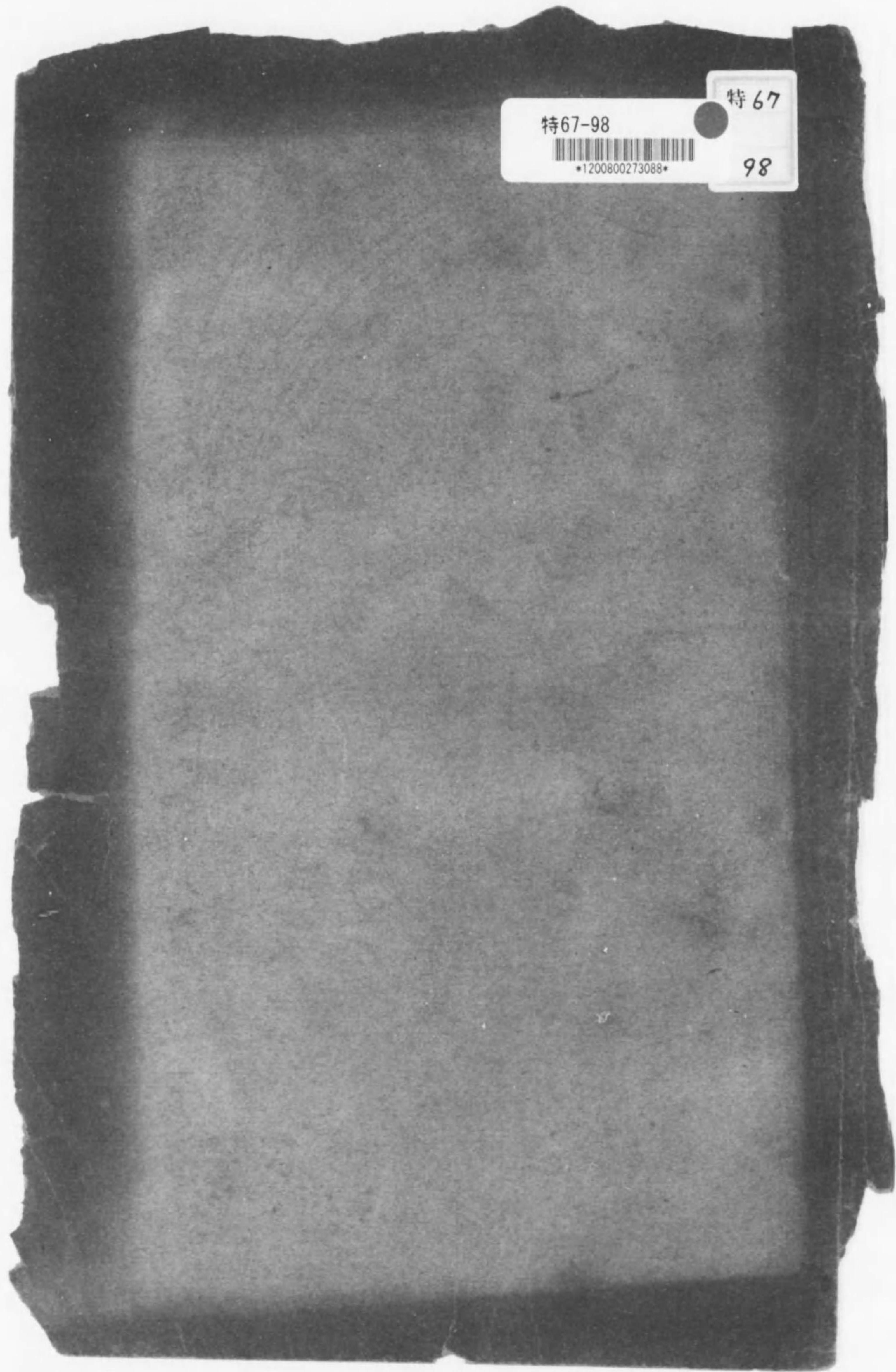


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