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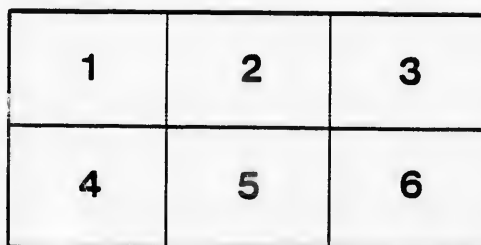
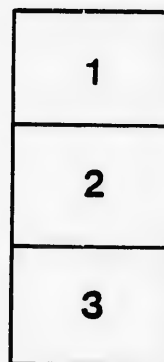
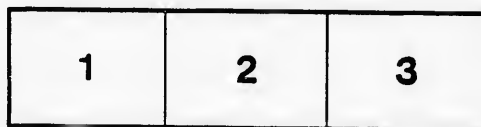
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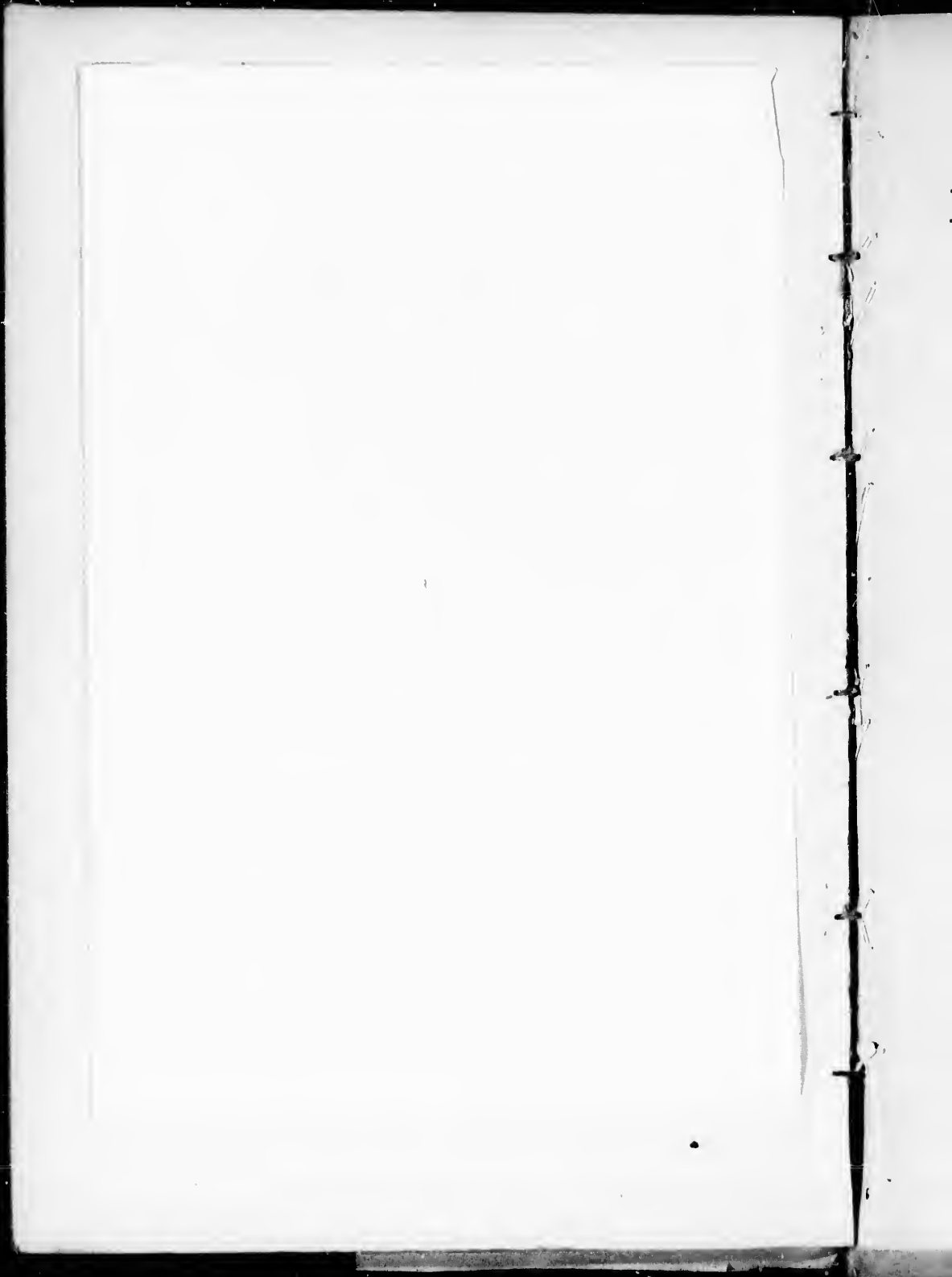
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NO. 19.



THE KOHL COLLECTION
OF
MAPS RELATING TO AMERICA.

By JUSTIN WINSOR.

CAMBRIDGE, MASS.:
Issued by the Library of Harvard University.

1886.

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A Star prefixed indicates they are not yet ready.

1. EDWARD S. HOLDEN. Index-Catalogue of Books and Memoirs on the Transits of Mercury.
2. JUSTIN WINSOR. Shakespeare's Poems: a Bibliography of the Earlier Editions.
3. CHARLES ELIOT NORTON. Principal books relating to the Life and Works of Michelangelo, with Notes.
4. JUSTIN WINSOR. Pietas et Gratulatio. An Inquiry into the authorship of the several pieces.
5. LIST OF APPARATUS in different Laboratories of the United States, available for Scientific Researches involving Accurate Measurements.
6. THE COLLECTION OF BOOKS AND AUTOGRAPHS, bequeathed to Harvard College Library, by the Honorable Charles Sumner.
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14. WILLIAM H. TILLINGHAST. Notes on the Historical Hydrography of the Handkerchief Shoal in the Bahamas.
15. J. D. WHITNEY. List of American Authors in Geology and Palæontology.
16. RICHARD BLISS. Classified Index to the Maps in Petermann's Geographische Mittheilungen. 1855-1881.
17. RICHARD BLISS. Classified Index to the Maps in the Royal Geographical Society's Publications. 1830-1883.
18. JUSTIN WINSOR. The Bibliography of Ptolemy's Geography.
19. JUSTIN WINSOR. The Kohl Collection of Early Maps.
20. WILLIAM C. LANE. Index to Recent Reference Lists, 1884-1885.
21. A LIST OF THE PUBLICATIONS of Harvard University and its Officers, 1880-1885.
- *22. JUSTIN WINSOR. Calendar of the Sparks Manuscripts in Harvard College Library.

THE KOHL COLLECTION OF EARLY MAPS.

BELONGING TO THE DEPARTMENT OF STATE, WASHINGTON, U.S.A.

By JUSTIN WINSOR, *Librarian of the University.*

*** This collection consists of well-executed hand-copies, with but occasional attempts at reproduction by fac-simile. The maps are contained in a series of portfolios, and each is mounted on a large sheet of card-board, with marginal tablets or other appendage of description. Little use of color is made in them. The names, legends, drawings, and devices are usually in black ink; the coast shadings and larger rivers in a blue wash. The maps vary in size.

Dr. John G. Kohl, a learned German, and a traveler of large experience, was born in Bremen, April 28, 1808, but spent many years in Dresden. He had from his early years pursued the study of historical geography. He came to this country in 1854, bringing copies which he had made of many maps relating to the progress of discovery in America,—some of them from old geographical and other printed treatises, and some from manuscripts of various kinds which he had found in European archives and libraries, public and private. Using an appropriation from the government, obtained in 1856 (\$6,000), he prepared this series of copies, as the foundation of an elaborate catalogue of the early maps of the American continent.

He also, using for illustration some of the same maps, prepared for the Coast Survey memoirs of the early cartography (eastern and western coasts of the present United States and of the Gulf of Mexico), which are described in the *Reports of the Survey for 1855 and 1856*. As the results of this study, Dr. Kohl later printed in the *Zeitschrift für Allgem. Erdkunde* (neue folge, xv), two papers on the "Älteste Geschichte der Entdeckung und Erforschung des Golfs von Mexico und der ihn umgebenden Küsten durch die Spanier von 1492 bis 1543," and he confessedly published this essay as a part of his greater work made for the United States Coast Survey. He likewise prepared, what is in good part an excerpt from this larger collection, a memoir on the early cartography of the northwest coast of North America. This manuscript was later in the possession of Professor Henry of the Smithsonian Institution, and was given by him to the American Antiquarian Society, in whose library at Worcester it now is. Cf. the *Proceedings* of that Society, Oct. 1867; Apr. 1869, and Apr. 1872.

Dr. Kohl failed to get from the government all the sanction which he wanted for the publication of his results, and so returned to Europe about 1858, leaving these collections behind him. At home he became the librarian of the city library of Bremen, and prepared and published various studies in his special department; the chief of which were, first,

a treatise (1861) on the earliest official maps of America,—*Die beiden ältesten General-karten von Amerika*,—which was accompanied by fac-similes on a large scale, excellently done, of the well-known maps of 1527 and 1529; and, second, a treatise on the early discovery and cartography of the region known as the Gulf of Maine,—with references, however, to some adjacent and even somewhat remote parts,—which he undertook at the invitation of the Historical Society of Maine. This book, which forms the first volume of the Documentary History of that State, published by that society, is called *A History of the Discovery of Maine*, and was published, partly at the cost of the State, in 1869. It remains the most important single contribution to the history of the discovery and cartography of our Eastern coast. It was illustrated with numerous sketch maps, mostly, if not entirely, excerpts from this collection, which were used by him under the advantage of greater knowledge and experience than he possessed when he formed the Washington collection. He also printed in 1861, at Bremen, a *Geschichte der Entdeckung Amerikas*, which was translated by R. K. Noel, and published in London in 1862, in two volumes, as a *Popular History of the Discovery of America from Columbus to Franklin*. A treatise on the history of the Gulf Stream was another fruit of these later labors.

Dr. Kohl has amply set forth his methods and purposes in his favorite study in his introduction to his *Discovery of Maine*, and he has explained the importance of old maps in historical study in a lecture *On the Plan of a Cartographical Depot for the History and Geography of the American Continent*, which he delivered at the Smithsonian Institution, and which is printed in its *Annual Report for 1856*, pp. 93-147. Another useful little treatise was also printed by him in Washington in 1857, entitled: *A Descriptive Catalogue of those maps, charts, and surveys, relating to America, which are mentioned in Vol. III. of Hakluyt's Great Work*. In this publication he speaks of having studied American maps "a little better than those of the other parts of the world," and calls his tract a part of *A General Catalogue of all the maps relating to America*,—which seems to have been the title intended for the work, which he hoped finally to publish under the patronage of the government. He also printed at this time in *The National Intelligencer* an interesting paper on "Lost maps."

Dr. Kohl died at Bremen, Oct. 28, 1878; and Mr. Charles Deane, who had known Kohl well during his sojourn in Cambridge, where he had done much of his work on American maps, using in part the

extensive collection of printed maps in the college library,—commemorated him in the following December in a notice before the Massachusetts Historical Society, which is printed in their *Proceedings*, vol. xvi. p. 381. Kohl's reputation as a student and expounder of comparative cartography was very high. Mr. Major, the eminent head of the map department in the British Museum, referring to Dr. Kohl's *Discovery of Maine*, spoke of it as "a most admirable work; and I am proud to think (he adds) that it was at my suggestion that the proposal was made to my learned friend to undertake so responsible and learned a task." Mr. Deane properly says of him: "After the death of Humboldt, he was unquestionably the most distinguished geographer in Europe." Mr. James Carson Brevoort, whose own knowledge of early American maps is so critical, accords him the highest place among his contemporaries; and Mr. Henry C. Murphy, by whose recent death scholarship in this field has lost a devotee of superior attainments, also bears testimony to the rich quality of his work.

After his return to Europe Dr. Kohl also published at Berlin in 1877 a *Geschichte der Entdeckungsreisen und Schiffsfahrten nach Magellan's-strasse und zu den ihr benachbarten Ländern und Meeren, mit acht Karten*, which had previously appeared in vol. xl. of the *Zeitschrift der Gesellschaft für Erdkunde in Berlin*. This also he considered a fragment of a greater work, which he proposed to call "*Geschichte der Entdeckung und Geographie der Neuen Welt*." He had prepared a history of the search for the northwest passage from Cortes to Franklin and McClure, which failing health prevented his putting to press. Some fragments of it were printed however in the periodical *Ausland*, published at Augsburg. A portrait of him, following a photograph, is engraved in the *Narrative and Critical History of America*, vol. iii. p. 209; and a memoir is printed in the *Beilage zur Allgemeinen Zeitung*, Augsburg, July 9, 1879.

This valuable collection had for twenty-five years remained practically unused in the custody of the Department of State at Washington. At the outbreak of the civil war it was temporarily in charge of the War Department, placed in an apartment occupied by troops, and barely escaped destruction. Scholars have occasionally referred to it, but they chiefly brought away from it a sense of its importance and of the want of a key to it. Being in communication with the librarian of that department, THEODORE F. DWIGHT, Esq., the preparation of an annotated calendar for the use of scholars was suggested; and on his representation of the subject to the Department permission was promptly obtained to have the maps sent to the College library at Cambridge to facilitate the preparation of such a Calendar. Dr. Kohl had arranged the maps on a system, from which it does not seem necessary to depart. Since he was engaged upon this collection a great advance has been made in the study of early American cartography. His comments, therefore, are not as useful now as formerly; and though constant use has been made of them, the editor has been obliged to exercise large discrimination, as well as to rectify Kohl's English, whenever it is quoted. Many important and useful maps have been brought to light or made public, which were not known to Dr. Kohl. In order to make the enumeration as useful as possible as a check-list for the student, notices of many of these additional maps have been inserted in their proper chronological order; but only such as Dr. Kohl contributes have had a marginal serial number given to them.

I.

THE WORLD BEFORE COLUMBUS.

1. A symbolic representation of the earth, heaven, and sun, from an Egyptian papyrus.

Dr. Kohl credits this to a hieroglyphic papyrus in the Cabinet des Médailles of the Bibliothèque Nationale in Paris, and to a reproduction given by Charton in his *Voyageurs anciens et modernes*.

At the bottom of the picture, as a representation of the earth, is an outstretched human figure, its body spotted with leaves. Heaven is in form of another figure, bent like an arch over the earth, with marks of stars covering its body. Among other symbols, the goddess Maou kneels beneath the arch, with weights on her arms, indicating the force of equilibrium. Outside the arch, on the left and on the right, two boats are represented as carrying the rising and setting sun.

2. Hindu representation of the world.

Taken from engravings which appeared in the *Journal of the Asiatic Society*, and in Charton's *Voyageurs anciens et modernes*.

It represents an expanded lotus-flower floating on the sea. A surrounding chain of mountains (not shown in the drawing) separates this from the great vacuum. The centre of the flower forms Mount Meru, the residence of the gods, and from this mountain rivers flow in all directions. The leaves represent the great peninsula: regions of Asia.

3. A. D. 550. The universe after Cosmas.

Taken from a print in Charton's *Voyageurs anciens et modernes*.

A case, in shape like the tabernacle of Moses, gives in the upper portion the abode of the Creator. The earth is in the form of a high mountain, round which the sun revolves, and its base is washed by the ocean, arms of which like the Persian Gulf (Persicus), the Arabian Gulf (Arabicus), and the Mediterranean Sea (probably intended by Sinus Romanus) indent the foot of the mountain. The Caspian Sea (Caspicus) is represented on the side of the mountain.

Cosmas was a geographer of the sixth century. Cf. Humboldt, *Examen critique*; Santarem's *Atlas*, pl. 3; C. P. Daly, Address on the *Hist. of Cartography*, p. 19.

4. viii. cent. The world.

A map, found by Libri in the library of Alby, belonging to a manuscript of the eighth century, and believed by Libri to be the most ancient cartographical monument known to us. Santarem in his *Histoire de la Cartographie*, etc., ii. 23 (*Atlas*, pl. 2), has analyzed the map, but Kohl, who does not say from what his own copy was made, points out that Santarem's description does not wholly agree with it.

The earth is a huge island of a horse-shoe shape, of wide arms but of narrower apex, lying upon an ocean,—a gulf of which, representing the Mediterranean sea, fills the space between the arms of the shoe.

Kohl points out that this geographer of Charlemagne's day did not know so much of the earth as was known in the time of Alexander the Great. Lelwel, vol. i., gives it, and calls it of the eighth century. Jomard, *Atlas* (pl. xiii.), gives a map resembling it, which he calls of the tenth century.

5. A. D. 787. Spanish map of the world.

Kohl says this drawing is based on a tracing, made by him from a copy, belonging to Santarem, of an original, which is a part of the Spanish manuscript commentary on the Apocalypse by an unknown writer, of about 787. Kohl does not say where the original is; but Santarem has included it in his *Atlas*, pl. 12.

The earth is a parallelogram with rounded corners, surrounded by the ocean, arms of which cut it like straight canals.

— ix. cent.

Santarem in his *Atlas* (pl. 3 and 10), gives two mappemondes of the ninth century; and Lelewel *Atlas* (pl. vii.) gives one from a MS. then preserved at Strasbourg, which had been previously published by Mone in the *Anzeiger für Kunde der deutschen Vorzeit*, 1836.

— x. cent.

Examples of this century, representing an Anglo-Saxon map and an Arabian map may be found in Vivien de St. Martin's *Atlas dressé pour l'Hist. de la Géog.*, Paris, 1874. The same are also given on a small scale in Daly's *Address on the History of Early Cartography*, pp. 20, 22. The Anglo-Saxon map is in the British Museum, and was first published by Strutt in his *Chronicle of England*, vol. ii., and was again published in the *Magazin pittoresque*, 1840, p. 267, by Santarem in 1842, and in Lelewel's *Atlas*, pl. vii. Santarem in his *Atlas* (pl. 3, 4, 6 and 7) also gives four specimens belonging to the tenth century.

6. xi. cent. The world.

After an engraved fac-simile in Naumann's *Catalogus librorum manuscriptorum, qui in bibliotheca senatoria civitatis Lipsiensis asservantur* (Grimæ, 1838), which in turn follows an original in a manuscript of the eleventh century, written in the convent of St. John in Magdeburg, and containing beside the maps, parts of Horace, Lucan and Salust. Cf. Santarem, *Hist. de la Cartographie*, ii. 93.

The earth is circular, surrounded by the ocean, and bisected by a canal-like water, above which is Asia, and below which, another canal at right angles to the first subdivides the lower half, with Europe on the left and Africa on the right.

There is a small sketch of it in the *Atlas* of St. Martin (pl. vi. no. 5). Santarem in his *Atlas* (pl. 8) also reproduces it; and Jomard, *Atlas* (pl. xii.), gives it, but calls it of the tenth century. Lelewel, *Atlas* (pl. ix.), gives it as of the eleventh century.

— xi. cent.

Santarem, *Atlas*, pl. 4, 6, and 9, gives other maps of this century, the original of one being in the British Museum, and another is represented as "tiré de la Cosmographie d'Azaph."

The mappemonde of St. Sever found in a Spanish treatise by Beatus on the Apocalypse, preserved at Paris, is given in facsimile in the *Choix de Documents géographiques conservés à la Bibliothèque Nationale*, Paris, 1883. It is placed in the xiii. century, and accounts of it are found in Davezac's *Une digression géographique*, Paris, 1870, taken from *Le Bibliophile illustré*; and in E. Cortambert's *Trois des plus anciens monuments géographiques du moyen âge*, Paris, 1877, taken from the *Bull. de la soc. de géographie*.

Lelewel, *Atlas* (pl. ii.), gives a map of the Egyptian Abul Hassan ali Ibn Iunis (A. D. 1008), reconstructed; and, on the same plate, a map representing the habitable globe of this period; also (pl. v.) a reconstruction of a map by Abu Rihan (A. D. 1030); and (pl. vii.) a part of a map after a manuscript at St. Omer, which had been previously published by Mone in the *Anzeiger für Kunde der deutschen Vorzeit*, 1836.

7. A. D. 1063. The world.

The original of this is in a manuscript *Victorii Canon Paschalis*, preserved in the Sir Thomas Phillipps' collection in England.

Kohl, referring to the delineation of a similar map, found at Dijon, given by Santarem, says that its configuration is an ordinary one in the eleventh century. In it we begin first to derive an intelligible idea of the views and aims of the early Portuguese navigators, whose explorations down the African coast harbingered the spirit which led Columbus to undertake his western voyage.

The earth is circular, surrounded by the ocean. A central belt constitutes the burnt zone. A southern belt is thought to be an inhabited region, by analogy, because the northern belt holds that portion of the world known to geographers. This northern belt gives in a rude way Europe and Asia, with northern Africa, as far south as the upper edge of the burnt zone, the island "Meroe" of the Nile lying at this point. On the burnt zone is the following inscription:—

"Zona terræ fusta quam undige sursum et deorsum circum fluit oceanus, qui a suis duabus extremitatibus oriente scilicet et occidente in septentrionem et austrum refunditur, qua refusione reumata id est ebullitiones maris fieri videntur."

8. xii. cent. The world.

The original is attached to a commentary on the Apocalypse preserved in the Royal library at Turin. It has been engraved in Pasini's catalogue of that library; and again in Santarem's *Atlas*. Kohl considers that though the Turin copy may be of the twelfth century, it is probably a copy of a much older original, and points out its resemblance to the Spanish map numbered 5 (above), though the present map is circular instead of squarish. It is figured by Daly and others as of the eighth century. Jomard, *Atlas* (pl. xiii.), gives it, and assigns it to the tenth century. Lelewel, *Atlas* (pl. ix.), calls it of the twelfth century.

9. xii. cent. The world.

The original is in the British Museum, and belongs to a manuscript concerning the Apocalypse of St. John, among the Harleian MSS. no. 2799. The Museum authorities put it down under this century; and Kohl agrees with them.

The earth is circular surrounded by water; the Mediterranean, Black, and Red Seas are united in a T shaped canal, with the upright part connecting with the external ocean at the west.

— xii. cent.

Santarem in his *Atlas* (pl. 4, 5, 7, 10, 13, 15, and 30) gives other maps of this century, one of which is called "dressée par Henri, chanoine de Mayence"; another, "tirée d'un MS. Liber Guidonis"; a third from a manuscript of Lambertus in the library at Gand; and also a planisphere belonging to

a MS. of the *Imago Mundi*. The last two are also in the *Atlas* (pl. viii.; also xxv.) of Lelewel, who in his *Épilogue* to his *Cat. des Moyen Âge* gives several eleventh and twelfth century "rudimenta latina geographorum"; and again in his *Atlas* (pl. viii.) gives one from a manuscript of A. D. 1119 of the bibliothèque de Bourgogne at Brussels.

— A. D. 1160.

There are sketches of Edrisi's map of the world in St. Martin's *Atlas* (pl. vi. no. 10), and in Daly's address, where it is dated 1154. Lelewel (vol. i. and *Atlas*, pl. x., xi., and xii.) gives it, and dates it 1154; and he also gives a "tabula rotunda Rogeriana restaurata."

It is circular, with a surrounding ocean, of which the Mediterranean and Indian seas are arms, running to the centre from the west and east respectively. The lakes which feed the Nile are prototypes of the great Albert and Victoria lakes of our day. The map was made by an Arabian geographer, Edrisi, by direction of King Roger of Sicily, and engraved on a round plate of silver, from which what are supposed to be copies exist in the National library at Paris and in the Bodleian at Oxford. The latter copy is the most perfect and has been published by Vincent.

10. xiii. cent. **The world by Mathew of Paris.**

The original belongs to an undated manuscript, *Flores historiarum*, preserved among the Cottonian MSS. in the British Museum, and Kohl says it resembles another map of the same supposable age in the same collection, which I judge to be one of those figured in Santarem's *Atlas* (pl. 14). It is also in Lelewel. The map gives only the habitable part of the earth, mainly the basin of the Mediterranean Sea and its tributaries, but its features would not be recognized except for the names. It has the following inscription:—

"Summatim facta est dispositio mappa mundi magistri Rob' de melkeleya et mappamundi de Waltham. Mappamundi domini regis quod est in camera sua apud westmonasterium figuratur in ordine Mathei de Parisio. Verissimum autem figuratur in eodem ordine, quod est quasi clamis extensa, talis est suma nostre partis habitabilis secundum philosophos sed quarta pars terre que est triangulari fere. Corpus enim terre sphericum est."

Santarem has given this map in his *Atlas*, pl. 14; and also others of the thirteenth century (pl. 4, 6, 7, 21), including a planisphere of Cecco d' Ascoli, another of Irish origin, and a mappamonde preserved in the library at Leipsic. Jomard in his *Atlas* (pl. xiii.) gives one preserved in the British Museum, and another called the Playfair map.

The well-known map of the world in the Hereford cathedral, an oval with Jerusalem in the centre, is also assigned to the thirteenth century. It is given in Jomard's *Atlas* (pl. xiv.).

11. A. D. 1283. **The world by the Arabian, Kaavini.**

The original is in the collection of the duke of Gotha.

A circle of high mountains encloses a circular ocean, within which as a circular island is the earth. The Arabian peninsula is in the centre, with the Red Sea like a sickle about it, the Persian Gulf forming with the China seas a parallelogram of water connecting with the external ocean. The Arabian names are translated into German.

A fac-simile of an Arabian sea-chart of the thirteenth century, preserved in the Ambrosian library at Milan, was issued by Ongania at Venice in 1881.

— xiv. cent.

Various other sea-charts, portolanos and planispheres of the fourteenth century have been brought before the public of late years. Sea-charts of Pietro Visconte di Genova, of 1311 and 1318, preserved respectively in the archives of Florence, and in the Museo civico di Venice were published in fac-simile in 1881 and 1875 by Ongania of Venice. That of 1318 is given also by Santarem, *Atlas*, pl. 33. Ongania also issued in 1881 an anonymous portolano of 1351, preserved in the Biblioteca Mediceo-Laurenziana at Florence (Lelewel also gives this); a planisphere of Giovanni da Carignano, from the archives of Florence; and an anonymous portolano from the Biblioteca Marciana. Jomard, in his *Atlas* (pl. xi.), gives a "Carte Marine" of the fourteenth century, the property of a Pisan family. A facsimile is included in *Choix de documents géographiques conservés à la Bibliothèque Nationale*, Paris, 1883. Jomard also gives (pl. xiii.) a map of near the end of the century. A map from the Chronicle of St. Denis (1364-1372) in the Ste. Geneviève library at Paris, is given in Santarem (pl. 16 and 17), Jomard (pl. xiii.), and Lelewel (pl. xxvi.).

Santarem also includes in his *Atlas* (pl. 3, 4, 8, 27, 36, 39, 60) two mappemondes, a planisphere belonging to a work of Guillaume de Tripoli (also in Lelewel, pl. xxvi.), a portolano from the Paris library, and a sea-chart from the archives of Luzerne.

Lelewel, *Atlas* (pl. xxviii.), gives an "imago mundi" as belonging to a manuscript (Prisciani) of the fourteenth century, in the library at Arras, which had been published in 1836 by Mone in the *Anzeiger für Kunde der deutschen Vorzeit*.

12. A. D. 1321. **The world by Marino Sanuto.**

The original is among the Tanner MSS. in the Bodleian library, and belongs to a treatise *Secreta fidelium crucis*.

The map is circular with the earth nearly filling its limits, the ocean forming the outer rim. The Mediterranean is tolerably drawn, as are the British islands and the Scandinavian peninsula.

Other maps by Sanuto are known, and they have a general likeness to each other. One of 1306 is given by Camden, — this has the Fortunate Islands, which are omitted in the map of 1321. Another of 1320 was published not wholly accurately by Bongars in 1611 in his *Gesta dei per Francos*, and this has been figured by St. Martin in his *Atlas*, pl. vi. no. 3. Santarem (*Atlas*, pl. 18, 19, 20) gives one from the library at Paris, another from the library at Brussels, and a third of 1321, not placed.

Lelewel (*Atlas*, pl. xxvii.) gives a Marino map of 1360, as from a Paris manuscript, *Chronicon*, which he says he perfected by collating the Brussels copy. Jomard, in his *Atlas* (pl. xiii.), gives a map preserved at Paris, as of the fourteenth century, which closely resembles this no. 12.

13. A. D. c. 1350. **The world by Hygden.**

The original is in the manuscript *Polychronicon* of Ranulphus Hygden, preserved in the British Museum, the work being a history of the world down to 1357.

The earth is an oval-like island, with pointed ends, east and west, — resting in an ocean of corre-

sponding shape with some islands in its western parts. Only two seas indent its outline,—the Red Sea and Persian Gulf. Paradise is the extreme eastern apex.

The map is examined by Santarem in his *Histoire*, lii. 82.

14. A. D. c. 1350. The world by Hygden.

The original is also in the manuscript named under no. 13.

Its delineation is much more elaborate. The shape is oval, with the longest diameter east and west. The surrounding ocean is filled with islands. The Mediterranean and Indian seas are rudely delineated. Cf. Santarem, *Hist. de la Cartographie*, lii. p. 3.

St. Martin (*Atlas*, pl. vi. no. 4) and Lelewel date it 1360. It is also included in Santarem's *Atlas* (pl. 9). It was figured in the *Magasin pittoresque* (1849), and from this Lelewel copied it, in his *Atlas* (pl. xxv.).

This copy of Kohl's reproduction is without notes; a second copy, 14*, has notes, and is put "about 1360."

15. A. D. 1367. Atlantio islands by the brothers Pizigani.

Dr. Kohl gives only the coasts of south-west Europe and north-western Africa, with the islands, which he identifies with the Canaries, Madeira, and the Azores,—considering it one of the earliest representations of these islands. He says he got his copy from Jomard; but does not consider it a good one.

The chart has since been given in full by Jomard (pl. x.) and Santarem (pl. 40). Ongania, of Venice, published in 1881 a fac-simile of a sea-chart of Francisco Pizigani, preserved in the Ambrosian library at Milan, which he dates 1373.

16. A. D. 1375. Catalan mappemonde.

This is preserved in the Bibliothèque Nationale at Paris; and it originally belonged to the library of Charles V. in the Louvre. It is "en langue romane catalane du xiv^e siècle."

It represents the known world from the Canaries to Catayo; but Dr. Kohl only gives the Canary Islands and the adjacent coast.

It is given in full with a Key in Sophus Ruge's *Geschichte des Zeitalters der Entdeckungen*, 1881; also in *Manuscrits de la Bibliothèque du Roi*, etc., Paris, vol. xiv. Part 2, p. 1; in Santarem's *Atlas* (pl. 31, 40); Lelewel's *Atlas* (pl. xxix.); St. Martin's *Atlas* (pl. vii. no. 1); and full size in facsimile in twelve sheets in *Choix de Documents géographiques conservés à la Bibl. Nat.*, Paris, 1833.

— xv. cent.

Santarem gives three mappemondes of this century without definite date,—one in the Musée Borghese (pl. 24), one in the Medici library at Florence (pl. 26), and the other as given by La Salle. Lelewel (pl. xxxv.) gives a map of the world as belonging to a MS. of Sallust at Geneva.

Ongania, at Venice, published in 1881, a fac-simile described as a "Planisfero del mondo conosciuto (in lingua catalana) di anonimo del xv secolo," from an original preserved in the Biblioteca nazionale at Florence.

— A. D. 1410.

A planisphere of Pierre d'Ailly is given in Santarem (pl. 15) and in Lelewel (pl. xxviii.). It is described in Santarem's *Hist. de la Cartographie*, iii. 301.

17. A. D. 14...? Juan da Napoli's Portolano.

This gives only the Atlantic islands from a portolano, which Kohl thinks represents the knowledge of a time not long after 1400. It belongs to an Atlas made in Venice, which is among the Egerton MSS. in the British Museum, whose catalogue, says Kohl, assigns the atlas to 1498. "Illa da Brazil" is represented off the coast of Ireland.

— A. D. 1417.

A map of the world belonging to a manuscript of Pomponius Mela in the library at Rheims.

The earth is within a circle, with the ocean surrounding it; and the Mediterranean, extending into the land, is as usual the prominent feature.

It is given by Jomard, *Atlas* (pl. xiii.), as of the fifteenth century; and is also in Santarem, *Atlas* (pl. 22); Lelewel, *Atlas* (pl. xxxiii.); St. Martin, *Atlas* (pl. vi. no. 6).

— A. D. 1424.

Santarem (pl. 41) gives a "Carte de la bibliothèque de Weimar."

— A. D. 1426.

A portolano of a Venetian hydrographer Giacomo Giralaldi is preserved in the Biblioteca Marciana at Venice. It was reproduced at Venice in 1881 by Ongania.

18. A. D. 1436. The Atlantio Islands by Andrea Bianco.

19. A. D. 1436. The world by Andrea Bianco.

The original of no. 19 is preserved in the Biblioteca Marciana at Venice. Kohl implies that No. 18 is not taken from no. 19, but follows an independent sea-chart by Bianco, in which this portion of the large map was reproduced with the names "Antilia," etc. inserted, while they were omitted in the larger map,—at least Lelewel omits them, whose engraving Kohl follows. There is a "Carta nautica" by Bianco, dated 1448, preserved in the Biblioteca Ambrosiana at Milan, and of this a fac-simile was issued by Ongania at Venice in 1881.

Map no. 19 is given in full in Lelewel (pl. xxxii.) and in Santarem (pl. 23, 43); and other references are given in Winsor's *Bibliography of Ptolemy's Geography*, sub anno 1478.

Bianco's views are of interest in early American cartography from the deductions which some have drawn from the configuration of the islands "Antilia" and "De la man Satanaxio,"—two islands on its western verge,—that they represent Pre-Columbian discovery of South and North America. Humboldt, *Crit. Untersuchungen*, i. 413, 416, has discussed this question, and pointed out that an island "Antilia" had earlier appeared on a map of 1425, and Davezac finds much earlier references to such an island. Santarem (*Hist. de la Cartographie*, &c., iii. 366, has fully described Bianco's work.

THE KOHL COLLECTION OF EARLY MAPS.

— A. D. 1439.

Santarem (pl. 54) gives a "Carte de Gabriell de Valsequa, faite à Mallorcha en 1439."

— A. D. 1447.

This is described in a fac-simile issued by Ongania at Venice in 1881, as a "planisfero terrestre di forma ellittica di anonimo, in lingua latina, dell'anno 1447." The original is in the Biblioteca Nazionale at Florence.

Lelewel, in his *Épilogue*, p. 167, refers to a Genoese map in the Pitti Palace, which gives Greenland as "Grinlandia"; and it is also referred to by De Costa in the *Mug. of Amer. History*, Apr. 1883, p. 290, who confirms the date, 1447, as given by Lelewel, though Santarem, *Hist. de la Cartog.*, iii. p. xix. put it 1417.

20. A. D. 1448. The world by Giovanni I sardo.

Dr. Kohl gives this map, which is of the ordinary circular form, free from most of the names, which fill it; but Santarem (pl. 25) gives it with the names. The map is at Vicenza, where it was discovered forty or fifty years ago by M. Lazari. Cf. Santarem, *Hist. de la Cartographie*, etc., iii. 398. A fac-simile of it was issued at Venice in 1880 by Ongania, with the date of 1452.

— A. D. c. 1450.

A fac-simile of this map preserved in the Museo Comunale at Mantua, issued at Venice by Ongania in 1881, describes it as a "Portolano membranaceo di anonimo dell'anno 1450 (circa)."

— A. D. 1455.

A sea-chart by Bartolomeus de Pareto, showing "Antillia," and an island farther west named "Roillo." I am not aware that any copy of it has been published. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1478.

21. A. D. 1460. The world by Fra Mauro.

The original is preserved at Venice, in the Biblioteca Marciana.

It is circular, and the delineation of Asia is better than on preceding maps. Kohl says that Mauro knew the works of the Italian and Arabian geographers, and the marine charts of the Portuguese, which were given to him by Don Alonzo V.

Dr. Kohl speaks of the most exact copy made of it by order of Lord Hobart in 1804, and of the reproduction given by Vincent in *Commerce and Navigation of the Ancients*, 1797 and 1807. He thinks it was finished in 1460. It is given by Santarem (pl. 43-49) with the dates 1459 and 1460. Lelewel (pl. xxxiii.) places it 1457-59. Ruge in his *Geschichte des Zeitalters der Entdeckungen*, 1881, gives it and dates it 1459. A photographic fac-simile, issued at Venice in 1877, by Münster (Ongania), dates it 1457, and St. Martin (pl. vii. no. 3) follows this fac-simile.

— A. D. 1467-1471.

Marine charts of Grazioso Benincasa, given in Santarem (pl. 55-58).

— A. D. 1474.

The map which the Italian geographer, Toscanelli, sent to Columbus, and which influenced him, though

known to be preserved in Madrid in 1527, has not since been traced. Lelewel, *Géog. du Moyen Âge*, ii. 130. An attempted restoration of it is given in St. Martin's *Atlas* (pl. ix.)

— A. D. 1475.

Mappemonde in the *Rudimentorum novitiorum*, given by Santarem (pl. 28).

— A. D. 1476.

A portolano of Andreas Benincasa, given in St. Martin (pl. vii.), and in Lelewel (pl. xxxiv.). A much reduced sketch is given by Daly, p. 26.

It shows "Antilio" as a western island, and the "Isola de Braçill," west of Ireland.

— A. D. 1482.

The mappemonde, in the edition of Ptolemy published at Ulm, represents "Engroneland" as stretching from northwestern Europe, and it is said the map was made before 1471.

— A. D. 1486.

What is known as the Laon globe, though dated 1493, represents rather the knowledge of this time. It gives "Grolandia" as an island on the Norway coast, and has an island, "Antela." Davezac gives a projection of it in the *Bulletin de la Société de Géographie* (1860), xx. 417. Cf. also Davezac on the "Iles fantastiques" of the middle ages in the *Nouvelles Annales des Voyages*, 1845.

22. A. D. 1489. The Atlantio Islands by Christofalo Soligo.

The original is preserved among the Egerton MSS. in the British Museum, in a portolano of different Venetian map-makers. There is no date, but 1489 is given in the Catalogue of the Museum as the approximate date of the collection.

Kohl thinks the chart based on that of Benincasa (1463), which he says is in his collection, but no copy of it is found here. "Antillia" is called "Y. de Sete Zitade," and is put west of the Azores, and this group as well as others includes various fabulous islands.

23. A. D. 1490. Portuguese map of the world.

The original is annexed to a Latin theological treatise (MS.) in the British Museum, and because it marks the extent of the Portuguese exploration of the African coast in 1489, and does not show the results of Vasco da Gama's voyage, Kohl places it about 1490. He says the language of the map is partly Portuguese and in part Italian, and his conclusion is that it is the work of an Italian settled in Lisbon. The western shore of Africa is given with approximate correctness, — much better than in any earlier map. A long peninsula at the northwest of Europe, though without name, seems to correspond to what is called in other maps Greenland.

I suppose it to be the map given "for the first time" in Santarem (pl. 50).

— A. D. 1492.

The Globe of Behaim, preserved at Nuremberg, represents the best knowledge at the time of the sailing of Columbus, though Peschel (*Zeitalters der Entdeckungen*, 1858, p. 90) allows Behaim to have

been but a mediocre cosmographer. Reproductions of it are given in Santarem (pl. 61) and in St. Martin (pl. ix.), and in other places mentioned in Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno, 1478. Lelewel, who gives it (pl. xl.), says in his *Epilogue*, p. 184, that the Behaim family caused it to be put in good order in 1825, after it had been long neglected in the town hall at Nuremberg; and that in 1847 a copy of it was made for the Dépôt Géographique at Paris.

24. A. D. 1493. Map in the Nuremberg Chronicle.

This is a sketch from the map in Hartmann Schedel's *Liber Chronicarum*, usually known as the "Nuremberg Chronicle," having been published in that city.

The map preserves the old idea of the connection of Africa and Asia enclosing the Indian Sea.

25. A. D. 1497. Vasco da Gama's route.

Dr. Kohl includes this modern map, in which Da Gama's route to and from India by the Cape of Good Hope is pricked, to show how near he came to the South American coast, which Cabral, on a similar voyage, discovered three years later. The route is that established by the studies of Diogo Hupke and Costa Paiva.

— A. D. 1497.

A carta nautica of Conte Freducci, preserved at Wolfenbüttel, shows an "isola de Brasil." Cf. Lelewel, ii. 106; *Studi biog. e bibliog. della Soc. geog. italiana*, ii. 94; Santarem, in *Bull. de la Soc. géog. de Paris*, 1847, i. p. 312.

II.

THE TWO AMERICAS.

26, 27. A. D. 1500. Juan de la Cosa.

These duplicate maps represent the American parts of the La Cosa map now at Madrid. Kohl copies the representation of it given in connection with Humboldt's essay appended to Chillan's *Ritter Martin Behaim*. (1853). Humboldt had earlier given the American parts in his *Examen Critique*, vol. v. (1839), but not very accurately. The best reproduction of the whole map is in Jomard's *Atlas*, pl. 16, and there are reductions from Jomard in Stevens's *Hist. and Geog. Notes*, 1869, pl. 1, and (with references) in the *Narr. and Crit. Hist. of America*, iii. p. 8. Other reproductions of the American part are in Lelewel's *Atlas*, no. 41, and in De la Sagra's *Cuba*. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1508; the App. to Irving's *Columbus* and Enrique de Leguina's *Juan de la Cosa, Estudio Biográfico*, Madrid, 1877.

— A. D. 1501-1505.

A Portuguese chart of this date is supposed to be given in the map of the 1513 Ptolemy (see *post*, no. 32). Another in that preserved at Munich, which is given by Kunstmann in his *Atlas*, pl. iii., and by Kohl in his *Discovery of Mainz*, p. 174. A chart resembling these two has been found in the possession of the Este family in Modena, on which the exact date of 1502 is given. It is described, with a facsimile, in HARRISSE's *Cortereels*; and is also referred to in his *Cabots*, pp. 143, 158. The map as-

cribed to Pedro Reinel is also at Munich, and is likewise given by Kunstmann; but there is strong ground for suspecting it to be of considerably earlier date, probably antedating Cabot. Cf. references in Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1508.

Peter Martyr mentions a chart said to have been made for the Portuguese by Vesputius, which is not now known. Santarem has pointed out that the narrative of Corsal in Ramusio shows that charts were often sent from Portugal during these years to the Portuguese ambassador in Rome.

28. A. D. 1508. Ruysch in the Ptolemy of 1508.

Dr. Kohl refers to Humboldt's introduction to Ghillany's *Martin Behaim*; Walckenaer's *Recherches géographiques sur l'Intérieur de l'Afrique septentrionale*, and the *Biographie Universelle*, vi. 207.

There are reproductions of the map in Santarem, Lelewel, and in various other places named in Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1508. An original copy of the map is in Harvard College library. A section of the northern part is given in the *Journal of the Amer. Geog. Society*, vol. xii. p. 179. Cf. Stevens's *Bibliotheca Geog.*, no. 3058. It is thought that Ruysch used Columbus's draughts.

HARRISSE, *Notes on Columbus*, p. 56, thinks Ruysch's map is referred to by Johannes Trithemius in a letter, Aug. 12, 1507 (published in his *Epistolae Familiares*, 1536), in which he complains that he could not afford to purchase a map of the new world for forty florins.

— A. D. 1510-1512.

The Lenox globe, preserved in the Lenox library in New York, of which drawings are given in the *Mag. of Amer. Hist.*, Sept. 1879; *Ency. Brit.*, x, 681, etc.; and *Narr. and Crit. Hist. of America*, iii. p. 217.

— A. D. 1511.

A carta nautica of Salvat de Pilestrina of Majorca, preserved in the archives of the Ministry of War in Munich. Cf. Kunstmann, *Die Entdeckung Amerikas*, p. 129; Thomas, *Der Periplus des Pont. Eux.*, p. 7; and Winsor's *Bibliog. of Ptolemy's Geography*, sub anno 1508.

29, 30. A. D. 1511. In Sylvanus's Ptolemy.

No. 29 is the western half of this cordiform map; no. 30 gives the whole map, with minor errors corrected in pencil by Dr. Kohl.

The map is given in Lelewel (pl. xlv), and there are various references in Winsor's *Bibliog. of Ptolemy's Geography*, sub anno 1511. Kohl's drawings are taken from the Grenville copy on vellum in the British Museum; and he points out how the contour of South America is the same as that of the Ruysch map, while Cuba is completed as an island, and Greenland is restored to its earlier connection with Europe. Cf. Zurla, *Marco Polo*, ii. 358.

— A. D. 1511.

The map described by D'Azvedo in his *Atlas hydrographique de 1511 du génois Vesconte de Maggiolo*, Paris, 1871, originally in *Bulletin de la Soc. Géog. de Paris*, 1870, p. 404. The original is in the collection of Don Riccardo Heredia in Madrid, having been bought by him at public sale in Paris in 1870 for 1500 francs. It is inscribed "Vesconte de Maiolo

civis Janue composuy in Neapoles de anno 1511, die xx January." It shows America from Labrador to Cape St. Augustine. Cf. Desimoni in *Giornale Litigioso*, ii. 52; *Studi Biog. e Bibliog. della Soc. geog. ital.*, ii. p. 106, and references to the cartographical work of Maggiolo (Maiolo) in Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1511.

— A. D. 1511.

Peter Martyr's map of the West India islands and adjacent coast was published with his first Decade, *Legatio Babylonica*, at Seville, and has been reproduced in various places. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1513. Few copies of the original are known. Harrisse is inclined to think that it does not belong to Peter Martyr's book, because three copies in the original vellum, which he has examined, do not have it. Cf. Stevens, *Bibl. Geog.*, no. 2954. Brevoort, *Verrazano*, p. 102, thinks its publication may have been offensive to the Spanish government, which might consequently have suppressed it. The later editions of 1516 and 1530 have no map. Brevoort adds that no official map of America was printed in Spain till 1790. The Cabot map of 1544 seems to have been compiled from Spanish sources; but it is not known where it was published; and that but a single copy is saved to us may also signify that it was suppressed by Spanish influence. The map of Medina in 1545 was a mere sketch.

31. A. D. 1512. Stobnicza.

A facsimile of the rare map belonging to Johannes de Stobnicza's *Introductio in Claudii Ptholomei Cosmographia*, Cracovia, 1512. Kohl used the copy in the Munich library. There are other copies now known, and for notes of these, and other references, see Winsor's *Bibliog. of Ptolemy's Geography*, sub anno 1512. There are facsimiles of the map in whole or in part in the *Carter-Brown Catalogue, Narr. and Crit. Hist. of America*, iii. 13; and in Daly's *Address on Early Cartography*, p. 32.

— A. D. 1512-14.

A sketch of the northern and southern hemispheres, of four gores each, in the Queen's collection at Windsor, and ascribed by R. H. Major, in the *Archæologia*, vol. xl., to Leonardo da Vinci, and placed under 1512-1514. Wieser, in his *Magalhães-Strasse*, gives it a modern hemispherical projection, and puts it in 1515-1516. It has lately been asserted that it is not the work of Da Vinci. Cf. J. P. Richter's *Da Vinci*.

32. A. D. 1513. In the Strasbourg Edition of Ptolemy.

This is the "Tabula Terre nove" of this edition, and Kohl points out that the names on the South American coast are carried no farther west than the extent of the voyage of Hojeda in 1499, and no farther south than Vesputius went in 1503, while the connection, which is made between the northern and southern continents, must have been based on reports, without particulars.

This map, supposed to have been in some way connected with Columbus's own charts is often called "the admiral's map," and its connection with Cabral and Vesputius has also been supposed. The maker of the map was Waldseemüller or Hyldacomylus, and Lelewel (ii. 143) gives reasons for believing that it had been engraved and sold as early as 1507, having

been made at the expense of Duke Rene II.; but the plate does not seem to have been used in any book till in this 1513 edition of Ptolemy. Lelewel supposes it to be in effect a Portuguese chart made in 1501-1504, and engraves it as such (pl. 43) and it is known that La Cosa complained of the Portuguese frequenting the coast in 1503. Facsimiles of the map are given in Varnhagen's *Premier Voyage de Vesputi*; Stevens's *Hist. and Geog. Notes*, pl. 2, and *Narr. and Crit. Hist. of Amer.*, iv. p. 34. Cf. the references in Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1513.

Of the other map in this Ptolemy, "Orbis typus universalis," Kohl gives no copy; but a facsimile can be found in Ruge's *Geschichte des Zeitalters der Entdeckungen*, Berlin, 1881. It shows a part of South America, with the islands "Isabella" and "Spagnolla," with a bit of coast to the north which seems to represent the Cortereal regions. Greenland projects from Europe.

Cf. D'Arve's *Martin Hyldacomylus Waldseemüller, ses ouvrages et ses collaborateurs*, Paris, 1867, — extracted from the *Annales des Voyages*, 1866.

— A. D. 1514.

A map (12 gores of a globe) found in a copy of the *Cosmographie Introductio*, Lugduni, and engraved in a *Catalogue* of Tross, the Paris bookseller, 1881. Harrisse, in his *Cabots*, p. 182, has ascribed it to Louis Boulenger. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1520.

— A. D. 1514-1520.

A Portuguese portolano given in Kunstmann's *Atlas*, pl. iv., and in Stevens's *Notes*, pl. v. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1522.

33. A. D. 1515. Reisch's Margarita Philosophica.

A facsimile of the map in this book, which was published at Strasbourg in 1515. Kohl used a copy in the library at Munich. The name "Zoananela" is given to North America, borrowed, Kohl thinks, from the *Paei novamente ritrovati* (lib. iv.), where it is said Columbus discovered a country of this name. Both Cuba and Santo Domingo are called "Isabella." South America is called "Paria seu Prisilia."

The map resembles the "Terre Nove" of the 1513 Ptolemy. The Ptolemy map is bounded on the west by the edge of the sheet, which cuts at the same place, where a scale of longitudes is placed in the Reisch map. West of this scale is "Zipagiu insula," which is thus put relative to the new lands in the same position as in the Stobnicza map. The river with three mouths, running into the gulf, which is in the Ptolemy map (thought by some to represent the Ganges), is left out by Reisch. Others, like Varnhagen, have considered this gulf that of Mexico, and the river the Mississippi.

There is a facsimile of Reisch's map in Stevens's *Hist. and Geog. Notes*, pl. 4. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1513.

The first edition of Reisch appeared at Freiburg in 1503. In the next year (1504) there were two editions, one Schott, the other Grüniger, which is priced by Leclerc (*Americana*, no. 2965) at 200 francs, and has a mappemonde, with no other indication of America than the inscription near the African coast: "Hic non terra sed mare est in quo miræ magnitudinis insulæ sed Ptolemæo fuerunt incognitæ." Quaritch (no. 12,363) had a copy dated 1508, with the same map, which he called "the only

known copy in which the map is to be found." The edition of 1515 had the map above noticed. (Harrisse, *Bib. Am. Vet.* no. 82; *Additions*, no. 45, noting copy in the Imperial library at Vienna.) That of 1517 (Basle) has a woodcut map which is still different. (*Beckford Catalogue*, iii. no. 1256.) Not till 1535 did any edition have any reference in the text to America. *Bib. Am. Vet.* no. 208. The latest edition was in 1583, which was published at Basle. It has a map of the world showing America. (Leclerc, no. 2926.) It is priced at 25 marks and £7.

— A. D. 1519.

Portolano by Maiollo figured in Kurstmann's *Atlas* (pl. v.), in Santarem, and in Thomas's *Der Periphus des Pont. Eux.* It shows the Atlantic coast and the line of demarcation. Cf. *Studi biog. e lit. della Soc. geog. ital.* ii. p. 109; *Atti Soc. figure*, 1897, p. 92; Kohl, *Die beiden Generalkarten* 30, 146; Desimoni in *Giornale ligustico*, ii. p. 54.

Enciso, in the dedication of his *Suma de Geographia*, Sevilla, 1519, mentions a map which he had made to elucidate his text for Charles I. (Charles V., later); but it is not now known.

34. A. D. 1520. The Frankfort Globe.

Only the American parts, with Japan, (Zipangu) are given of a globe preserved at Frankfort-on-the-Main.

Kohl conjectures the date to be 1520 because of its correspondence with a globe of that date made by Schöner, and he suspects this may also be the work of that globe-maker, while Wieser, in his *Magalhães-Strasse* (p. 19), where an engraving of it is given, declares it to be the globe made to accompany Schöner's *Lucentissima quadam Terræ totius Descriptio*, printed in 1515, and of which two copies are now known. This at Frankfort, of which Jomard (pl. 15) gives a drawing, and another at Weimar. Cf. references in Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1522.

35. A. D. 1520. Schöner's Globe.

Only the American portion is given, but without comments. The globe is preserved at Nuremberg, and there are representations of it given in Kohl's *Geschichte der Entdeckungsreisen zur Magellan's-Strasse*, Berlin, 1877, p. 8; in *Harper's Magazine*, Dec. 1882, p. 731; in Ghillany's *Martin Behaim*, Santarem, Lelewel, Wieser, etc. Cf. references in Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1522.

36. A. D. 1520. In Camers's Edition of Solinus.

This cordiform map is by Petrus Apianus (or Bienevitz, as he was called in his vernacular), appeared in the *Polyhistoria* of Solinus, edited by the Italian monk, Camers, and also in 1522 in the *De Orbis Situ* of Pomponius Mela, published by Vadianus.

There are facsimiles of this map in the *Carter-Brown Catalogue*, and in Santarem's *Atlas*.

Cf. references in Winsor's *Bibliog. of Ptolemy's Geography*, sub anno, 1522.

37. A. D. 1522. In the Ptolemy of 1522.

The map "Orbis Typus Universalis," signed "I. F.," showing part of South America and Cuba, the whole of "Spagnollo," and no other part of America; "Islandia" (Iceland) being placed off the point

of Norway, and "Gronland" being shown as a projection of Europe. The name AMERICA is on South America. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1522. This map of Laurentius Frisius was repeated without change of date in the Ptolemy of 1525, and again in that of 1535.

Kohl does not include in this collection another map of this 1522 Ptolemy, called "Tabula terre nove," which is a re-engraving of the map numbered 32, *ante*. Also repeated in the 1525 and 1535 editions.

— A. D. 1524.

Two small maps in Apian's *Cosmographicus liber*, published at Landshut. Cf. Harrisse, *Bibl. Am. Vet.* no. 127, and *Additions*, p. 87. The edition of 1529 (*B. A. V.* no. 148) has annotations by Gemma Frisius, a pupil of Apian; and in the same year his *Cosmographicæ introductio* (1529) is an abridgment of the large work (*B. A. V.* no. 149). The Antwerp edition (1528) of the *Cosmog. liber* has no map. There were other editions at Venice in 1533, and at Antwerp in 1534 (*B. A. V.* nos. 148, and *Additions*, nos. 88, 100, 106.) Cf. Winsor's *Bibliog. of Ptolemy*, sub anno 1540; and Harrisse, *Notes on Columbus*, p. 174.

The Prémontré globe of about this date. Cf. Winsor's *Bibliog. of Ptolemy*, sub anno 1540.

— A. D. 1525.

Harrisse, *Bib. Am. Vet.* no. 133, cites the *Ysllegung der Mer-Carthen or Cartha Marina*, and ascribes it to Laurentius Frisius. It has two large maps. Kohl gives a portion of the northeast coast of America (later to be mentioned). The 1530 ed., *Uebersetzung und Auslegung der Cartha Marina*, published at Strasburg (*B. A. V.* no. 158), has no maps.

— A. D. 1526.

A map by the Monk Franciscus, figured in Lelewel, pl. 46, showing North America as a part of Asia. The original is called "Hoc orbis hemisphaerum cedit regi Hispaniae." It appeared in the *De orbis situ ac descriptione Francisci epistola*. Cf. Harrisse, *Bib. Amer. Vet.* no. 131, where it is put under 1524.

38. A. D. 1527. The so-called Hernando Colon map.

The original (on parchment) is anonymous, and in the Grand-Ducal library at Weimar, and is dated at Seville in 1527. During the sixteenth and seventeenth centuries it had been kept in Nuremberg. Kohl, as has been the custom, assigns it to Ferdinand Columbus, but Harrisse dismisses his and other claims, and is inclined to ascribe it to Nuño García de Torenó. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540, for references. It shows the line of demarcation, as established between Spain and Portugal, or rather the Spanish view regarding that vexed question. Kohl later published a facsimile of the American parts of this map in his *Die beiden ältesten Generalkarten von Amerika*, Weimar, 1860.

39. A. D. 1527. Robert Thorne's map.

This map was made by an English merchant, living in Seville, who sent it to England, where it was published by Hakluyt in his *Divers Voyages*

in 1582, and is reproduced in the Hakluyt Society's edition of that book; and for the American portion in the *Nar. and Crit. Hist. of America*, iii. 17, and in Brown's *Cape Breton*, p. 22. Thorne professes to have "discovered the secrets" of the licensed map-makers of Spain.

Cf. Winsor's *Bibliog. of Ptolemy*, sub anno 1540.

— A. D. 1527.

A map by Maiollo, preserved in the Biblioteca Ambrosiana at Milan, which is in part figured in Desimoni's *Giovanni Verrazzano*, 3d app., Genoa, 1882; and in the *Nar. and Crit. Hist. of America*, vol. iv. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540. The date has been altered to 1587. *Studi biog. e bibliog. della soc. geog. ital.*, 1882, ii. pp. 113, 154.

— A. D. 1527.

The *Studi biog. e bibliog. della soc. geog. ital.* ii. p. 113, and *Atti soc. ligure*, 1867, p. 174, refer to a map of Baptista Agnese of this date in the British Museum; but the date is earlier than is usually assigned to this cartographer. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540.

The *Studi*, etc., ii. p. 114, also cites a carta nautica of about 1527, preserved in the Biblioteca Laurenziana, at Florence, which shows the east coast from Labrador to the Straits of Magellan.

40. A. D. 1528. The world by Coppo.

The original belongs to a rare book called: *Peritoloano delli Lochi maritimi ed isole de Mar . . . composto per Piero Coppo*, Venetia, 1528, of which there is a copy in the Grenville Collection, British Museum. The representation, which fills two pages of the book, is different from any other. America is represented by a large group of islands, of which "Mondo Novo" (South America) is the most extensive. Cf. Zurla, *Fra Mauro*, p. 9, and his *Marco Polo*, ii. p. 363; HARRISSE, *Bib. Am. Vet.*, no. 144. The Kohl MS. in the Amer. Antiq. Soc. has another drawing of the map, and it is sketched in the *Nar. and Crit. Hist. of America*.

Coppo refers to Columbus in a passage quoted by HARRISSE, *Notes on Columbus*, p. 56, from a citation in Morelli's *Operette*, i. 309.

— A. D. 1528. (See no. 48.)

The map of the world in Bordone's *Libro*, later known as the *Isolario*. It is sketched in H. H. Bancroft's *Central America*, i. 144. Lelewel (pl. 46) dates it 1521, since all the maps in the book are supposed to have been made then or earlier. It was reissued in 1533. Cf. references in Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540.

41, 42. A. D. 1529. Ribero's map.

These copies give only the American parts of this map of the world. Kohl in these drawings copied the draft of it by Güssefeldt, which was given in a monograph by M. C. Sprengel, *Über Ribero's älteste Welt-karte*, published in 1795, which followed a copy at Jena, and which Kohl says he follows in lieu of something better. In 1860, Kohl reproduced the Weimar original in his *Die beiden ältesten General-Karten von America*. The entire map is given in Santarem; in Lelewel, and in Rüge's *Geschichte des Zeitalters der Entdeckungen* (1883). There is another early copy in the Archivio del Collegio di Propa-

ganda at Rome. Cf. the references in Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540, and the *Bull. de la Soc. de Géog. de Paris* (1847), i. p. 309.

Referring to the Newfoundland region, Kohl thinks Ribero may have seen and used a map of these parts made in 1506 by a Frenchman. This refers to Charlevoix's statement of a map made by Jehan Denys; but HARRISSE, *Cabots*, p. 250, pronounces it "absolument apocryphe." A facsimile of an undated map of the Ribero type was published by the Spanish Government in the *Cartas de Indias* in 1877.

A Spanish planisphere in the possession of the Marchesi Castiglione in Mantua shows the whole Atlantic coast of both Americas, and on the Labrador coast has this legend: "Tierra que descubrió Estevan Gomez este año de 1525 por mandado de su majestad." Cf. *Studi biog. e bibliog. della Soc. geog. ital.*, ii. no. 412; Portioli, *Carte e memorie geografiche in Mantova* (1875), p. 24.

— A. D. 1529.

A planisphere of Hieronimus Verrazzano in the Museo Borgiano at Rome, which has been given in whole or in part in the monographs on Verrazano by J. C. Brevoort, H. C. Murphy, and B. F. De Costa. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540, and *Studi biog. e bibliog. della Soc. geog. ital.* ii. p. 116.

This same, *Studi*, etc., ii. p. 116, quotes a carta nautica of this date (1529) as being in the British Museum, and ascribed to Baptista Agnese.

43, 44. A. D. 1530. In the Sloane Mss., Brit. Museum.

The original is attached to a manuscript *De principis astronomia*, and placed by its Catalogue at about 1530. There is no date on the map, but the inscription on the coast above Florida is: "Terra Franciscana nuper lustrata," which may refer to Verrazano or Cartier; if to Cartier the date would be 1536 or later. North America is a continuation of Asia eastward. South America is cut off by the bottom of the map at 40°; but an inscription at that point says: "Hic ultra 55 g extendit." The map is very like the cordiform map of Orontius Finæus reduced to a plane. It is also in Kohl's MS. in the Amer. Antiq. Society's library.

45. A. D. 1530. Diego Fomem.

The original, among Lord Lumley's (d. 1609) maps in the British Museum, is noteworthy from the west coast of the two Americas having no defined or supposable limit, the green color of the Continent simply fading away. The eastern coast is of the Ribero type. The only names are "Timististan" (Mexico) and "Mundus Novus" (South America).

46. A. D. 1531. The world by Finæus.

The original is an engraved map in the Paris (1532) edition of the *Novus Orbis*, usually ascribed to Grynæus. This map, of which the title is "Nova et integra universi orbis descriptio," is of a double cordiform projection, divided at the equator. The author of it is Orontius Finæus, or Oronce Fine, who dates it July, 1531, in a dedication to Christian Wechel, who bore the expense of its production. Ortelius in his list mentions this map as "Orbis terrarum typus, sub forma cordis humani." This edition of the *Novus Orbis* has sometimes another map; but this is the proper one. Cf. *Bib. Am. Vet.*, nos.

172, 173; and references in Winsor's *Bibliog. of Ptolemy*, sub anno 1540. The same map is in the 1540 edition of Pomponius Mela. Cf. *Bib. Am. Vet. Additions*, no. 127.

— A. D. 1532.

The map by Münster in the Basle edition of the *Novus Orbis*, of which there are facsimiles in the *Narr. and Crit. Hist. of America*, iii., and in Stevens's *Notes*, pl. IV, no. 4. It was repeated in the 1537 and 1555 editions of the *Novus Orbis*. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540.

A mappemodé by Bartolomeo Olives, with other maps of Central and South America, contained in an Atlas in the Royal University Library at Pisa. Cf. *Studi biog. e bibliog. della Soc. geog. italiana*, ii. no. 414.

47. A. D. 1534. **America.**

An engraved map published in Venice Dec. 1534, with the title, *La Carta universale della terra ferma ed isole delle Indie occidentali*. It purports to be compiled from two marine charts, made in Seville by pilots of the Emperor. Kohl thinks the author drew from the charts of the Spanish hydrographical bureau as Ribero did, whose map it resembles. Kohl errs in saying that the Bermudas appear here for the first time on an engraved map, since they appeared in 1511 in the engraved Peter Martyr map. The coast from Paria to New England is called "Indie occidentali;" South America is called "Mondo Nuovo—Terra Ferma." A large part of the western coast of South America (Chili and Peru) is left blank. The western coast of North America above Central America is omitted. The only known copy of this map is in the Lenox Library; it is reproduced in Stevens's *Notes*. Cf. full references in Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540.

48. A. D. 1534. **The world by Bordone.**

An engraved map on an elliptical projection in the *Isolario de Benedetto Bordone*, published in 1534. What seems to stand for the Gulf of Mexico is bounded on the north by a projecting "terra del laboratore," and on the south by a larger peninsula, called "Mondo Novo." (See sub no. 40.)

— A. D. 1534.

A map of the Ribero type in the Ducal library at Wolfenbüttel. Cf. Harris's *Cabots*, p. 185.

Santarem, *Bull. de la Soc. de Géog.*, vii. 322, refers to a globe at Weimar of this date.

49. A. D. 1534. **The world.**

An engraved map of an elliptical projection, inscribed: "Tiguri Anno M.D.XXXIII." It resembles the map in the Basle, 1532, edition of the *Novus Orbis*, but omits the islands on the eastern coast of America. Kohl does not trace its origin.

50. A. D. 1535. **The world in the Ptolemy of 1535.**

It gives of America only the northeast corner of South America and the eastern coast of what is apparently Newfoundland or Labrador. It is called "Tabula Nova Orbis," and was repeated in the Lyons edition of 1541. "Gronlanda" is made a long narrow promontory stretching southwest from the northwestern extremity of Europe.

51. A. D. 1536 (?). **The world.**

The original is an undated MS. in the Bodleian Library, of an elliptical projection. The dotted line given for the Chili coast, and the indications of Pizarro's conquest of Southern Peru, induce Kohl to place it between 1534 and 1536. It resembles the delineation in the American parts of the maps of Baptista Agnese of about this date.

A similar outline is given in the Turin Atlas (1530-1540), of which Wuttke gives an outline in the *Jahresbericht des Vereins für Erdkunde in Dresden*, 1870. Still another of a like contour is given in colored facsimile by Peschel in the *Jahresbericht des Vereins für Erdkunde in Leipzig*, 1871.

52. A. D. 1536. **The world by Baptista Agnese.**

The original is a manuscript map of an elliptical projection preserved in the British Museum, marked: "Bapt. Agnese Venetis, 1536." The western and northern coasts of North America are vaguely drawn by a dotted line, and so is the coast of Chili. A course from Spain to the Isthmus, and so down the South American coast to Peru, is represented by a pricked line, as is also the route of Magellan's ship round the world. The La Plata river is developed with branches.

Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540, for references. A sketch of the map is given in the *Narr. and Crit. Hist. of America*, iv. p. 40.

— A. D. 1536.

An anonymous atlas of eleven charts, showing in one North America and the Moluccas, and in another South America and Africa, has been recently discovered in Padua; and is now in Venice. Cf. *Studi biog. e bibliog. della Soc. geog. ital.* ii. p. 120.

An anonymous atlas of twelve charts in the possession of Nicolo Barazzi in Venice, of which no. 3 is the Pacific and the coast of America; no. 4 is America; and no. 12 the world. It formerly belonged to the Erizzo family in Venice. Cf. *Studi*, etc., ii. p. 123.

— A. D. 1538.

A heart-shaped map of Mercator, of which the only copy known belongs to Mr. J. Carson Brevoort of Brooklyn. Cf. *Bull. of the Amer. Geog. Soc.* 1878, p. 196.

— A. D. 1539.

This date is assigned to an atlas commonly cited as the *Atlas de Philippe II., dédié à Charles Quint*, but which is more correctly defined in the title given to a photographic reproduction, *Portulano de Charles Quint donné à Philippe II. accompagné d'une notice par M.M. F. Spitzer et Ch. Wiener*, Paris, 1875. Major is inclined to believe it the work of Baptista Agnese. A copy of this facsimile is in Harvard College Library. Malte-Brun describes the map in the *Bull. de la Soc. Géog. de Paris*, 1876, p. 625. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540.

Plate IV. shows the two Americas, and is of the Agnese type. Plate XIII. shows the eastern coast of North America of the Ribero type, and the whole of South America, with the coast of Chili, is left out. Plate XIV. shows North America, with the west coast drawn up to California, but parts of the east and west coast of South America are left out.

— A. D. 1540.

The "typus universalis" of Münster in the Ptolemy of this date. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540.

— A. D. 1540. **The new world by Münster.**

See no. 58. The same plate was often used during this century, particularly in Münster's publications; with the names of the countries inserted in the block in different type, sometimes in German, sometimes in Latin. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1540. There is a reduced facsimile of this map in the *Narr. and Crit. Hist. of America*, vol. iv. p. 41.

— A. D. 1540.

The Antwerp edition of Apian's *Cosmographia* has a map reproduced in Lelewel's *Moyen âge*, pl. 46. Cf. the map in the 1544 (French), 1545 (Latin), and 1548 (Spanish) editions.

53, 54. A. D. 1541. The new world in the Ptolemy of 1541.

Similar to the maps in the editions of 1511 and 1513; but on a large scale, except that "Parías," a name given by Columbus to the northern coast of South America, is here transferred to what is shown of this map in the *Narr. and Crit. Hist. of America*.

No. 54 is a less perfect copy.

— A. D. 1541.

Engraved gores of a mappemonde by Mercator. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1548, with references.

55. A. D. 1542. America by Rotz.

The original is in a MS. in the British Museum, "John Rotz his book of Hydrography." It shows the eastern parts of North America and all of South America (making an island of the eastern parts of Brazil) on a hemispherical projection. It shows a number of fabulous islands in the North Atlantic. An outward curve in the coast of Chili was copied in many later maps. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1548, for references.

— A. D. 1542.

The Ulpius globe. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub annis 1540 and 1548, for reference; and also *Ibid.*, for the "Mappemonde Harleynne," as Harlisse calls it in the British Museum.

The map in Hunter's *Rudimenta Cosmographica*—much behind the time—and repeated in 1546, and in other editions till 1561, when a better shape for America was adopted. A fac-simile is given of the 1542 map in Stevens's *Notes*. It resembles the map given in Jomard, pl. xviii., as "sur une Cassette de la Collection Trivulci dite Cassettina all' Agemina."

56. A. D. 1543. America by Baptista Agnese.

The original is a manuscript map in the Collection of the Duke of Gotha, signed, "Baptista Agnese fecit Venetiis 1543 die 18 Februarii." It shows the eastern coast from Labrador to the Straits of Magellan; and the western coast, stopping just north of the same Straits, is renewed at Southern Peru, and extends to the upper verge of Central America.

It notes the discoveries of Ayllon on the Carolina coast. It is partly reproduced in Kohl's *Discovery of Maine*, 316. The *Studi biog. e bibliog. della soc. geog. ital.*, ii. p. 134, notes an atlas hydrographique (showing the world and America) also in the Ducal library at Gotha. There are various other Agnese maps of about this date. One, dated June 25, in the Huth library, is referred to in Harlisse's *Cubots*, p. 189; another in the Biblioteca Laurenziana at Florence is dated Feb. 12. In this chart no. 3 shows the Pacific with America and the Moluccas; no. 4, the Atlantic with the American coast; no. 12 is a general map, indicating the route of Magellan. Cf. *Studi*, etc., ii. p. 131. One of 1544 is in the Royal library at Dresden; it is signed at Venice. Cf. *Studi*, etc., ii. p. 132. Another of 1545 is in the Biblioteca Marciana at Venice. Cf. *Studi*, etc., ii. p. 132. Cf. references in Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1548. The *Studi*, etc., ii. p. 129, notes an Agnese atlas (1536-50) in the Royal library at Munich; and (p. 159) another in the National library at Florence as of the sixteenth century, containing fifteen nautical maps, of which no. 2 shows the coasts of the Pacific, and no. 3 the east coast of America.

— A. D. 1544.

Map by Ruscelli in the British Museum, drawn in part in Kohl's *Discovery of Maine*, p. 296, and in H. H. Bancroft's *Cent. America*, i. 148. Cf. Lelewel, p. 170; and Peschel's *Erkunde*, p. 371.

The well-known map usually ascribed to Sebastian Cabot. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1548 for references; and *Studi biog. e bibliog.*, etc., ii. p. 213.

The map of Münster's *Cosmographia* of this date is reproduced in Santarem and Lelewel, pl. 46.

57. A. D. 1545. The world in the 1545 edition of Ptolemy.

The map is by Sebastian Münster. The same map was re-engraved in the Ptolemy of 1552, and in Münster's *Cosmographia* of 1534.

58. A. D. 1545. The new world by Münster.

This is the well-known map, *Novus Orbis*, in the Basle, 1545, edition of Ptolemy. The same plate first appeared in the edition of 1540. (See that date.)

— A. D. 1546.

The Pierre Desceliers map, usually called the "Henri II. map." Cf. Winsor's *Bibliog. of Ptolemy's Geog.* for references; also, Paul Gaffarel's *Brésil Français*, Paris, 1878, p. 6; Guibert, *Ville de Dieppe*, vol. i. p. 348; Maltre-Brun's "Un géographe français du XVI^e siècle" in *Bull. de la Soc. de Géog. de Paris*, Sept. 1876.

The map of this date in *Epitome* of Vadianus, published in 1548, is given by Santarem.

The portolano of Johann Freire. Cf. Harlisse's *Cubots*, p. 220.

— A. D. 1548.

Maps no. 59 and no. 60 in the Italian ed. of Ptolemy. Both represent North America as a part of Asia, but differently. Cf. Winsor's *Bibliog. of Ptolemy's Geog.* No. 60, called "Carta Marina," was repeated in the Ptolemy of 1561. It is sketched in the *Narr. and Crit. Hist. of America*, iv. p. 43.

— A. D. 1549.

A Maggiolo atlas in the Biblioteca Comunale in Treviso.

59. A. D. 1549. **America by Medina.**

The original is an engraved map in Pedro de Medina's *Libro de grandezas y cosas memorables de España*, Seville, 1549. It shows the eastern coast of North America from Labrador south, and both coasts of Central and South America. Kohl suggests that the small size of this and the other early maps of America issued in Spain, indicate the unwillingness of the authorities to allow detailed charts on a large scale to circulate. It shows the famous line of demarcation, which is used to note the degrees of latitude. Cf. *Bib. Am. Vel.*, p. 517; and *Additions*, 165. It is the map of the *Arte de navegar* of 1545, eked out for the lower parts of South America by an added block. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1548.

60. A. D. 154-? **America by Homem.**

This is the western part of an elliptical projection of the world, and belongs to an undated manuscript in the British Museum. The west coast is shown from California to Peru; the east coast entire, and both coasts of Patagonia. Tierra del Fuego is the northern part of a land of unknown extent. The La Plata is developed; but the Amazon is not. "Terra Nova" is a peninsula stretching northwesterly from Norway, with "Yslanda" lying between it and "Bacalaos." The map resembles those of Homem's contemporary, Baptista Agnese.

61. A. D. C. 1550. **Nancy globe.**

This shows the western hemisphere of the globe preserved at Nancy, in France.

Kohl refers to Blaeu's paper on this globe in the *Mémoires de la Société royale des Sciences de Nancy*, 1835, pp. ix. and 97.

It makes North America part of Asia; and shows a large antarctic continent. Cf. Winsor's *Bibliog. of Ptolemy's Geog.*, sub anno 1548, for notices of engravings of it.

— xvi. cent.

The *Studi biog. e bibliog. della soc. geog. ital.*, vol. ii. enumerates various maps of this century, without assigning them particular years; and also a variety of MS. sea-manuals likewise of this century.

An anonymous Carta nautica preserved in the Ducal library at Wolfenbüttel, which shows North America in part, as far west as Yucatan and east to Cape St. Augustine (*Studi*, ii. p. 106). Cf. Harrisce, *Cabots*, p. 185; and Winsor's *Bibliog. of Ptolemy*, sub 1540.

An atlas in the same library, with a map of the new world, which is placed in the last quarter of the century (*Studi*, ii. p. 155).

A Spanish mappemonde of the early part of the century, preserved in the Archivio del Collegio di Propaganda, at Rome (*Studi*, ii. no. 446).

A Portuguese atlas in the Royal archives at Florence, showing no. 17, Acadia; 18, Cape Cod to the Gulf of Mexico; 19, Gulf of Mexico; 20, Antilles; 21-24, South American coasts (*Studi*, ii. no. 451).

An atlas of the first half of the century, in the Biblioteca Angelica at Rome, which has several maps of America (*Studi*, ii. p. 136).

An atlas in the Archivio del Collegio di Propaganda, with a map showing the east coast of Amer-

ica (*Studi*, ii. p. 160; *Bull. de la soc. de géog.*, 1847, vii. 308). Also in the same place a Carta nautica, showing a large part of America (*Studi*, ii. p. 160; *Bull.*, etc., vii. 313).

An anonymous atlas in the Biblioteca Comunale at Fermo (*Studi*, ii. p. 162).

An anonymous atlas in the Museo Civico at Venice, giving the northeast parts of America (*Studi*, ii. p. 163), and another (p. 165) showing the western hemisphere.

A globe in the Biblioteca Marciana at Venice (*Studi*, ii. p. 164).

An anonymous atlas in the Biblioteca Ambrosiana at Milan, showing the east and west coasts of America (*Studi*, ii. p. 168).

An anonymous Carta nautica, preserved at Milan, showing the American coasts of the Atlantic (*Studi*, ii. p. 170).

An atlas of Antonio Millo, preserved in the Biblioteca Vittorio Emanuele at Rome, showing the two Americas (*Studi*, ii. p. 174).

An anonymous Spanish planisphere of the beginning of the century, preserved in the Royal library at Turin, which shows the coasts of Mexico and the northern parts of South America (*Studi*, ii. no. 406).

An atlas of Francesco Gisalfo of Genoa with a mappemonde, preserved in the Biblioteca Riccardiana at Florence (*Studi*, ii. 169); an anonymous atlas in the same library, which shows the east and west coasts of America (*Studi*, ii. p. 172); and a Portuguese atlas, showing: no. 19, Canada; 20, Florida; 21, Peru; 22, Venezuela; 23-26, South America (*Studi*, ii. no. 452). Several of the maps in the Riccardi palace have been shown in the *Jahrbuch des Vereins für Erdkunde in Dresden*, 1870. Cf. Winsor, *Bibliog. of Ptolemy*, sub 1561.

A Portuguese planisphere of the end of the century, showing the western hemisphere. It is preserved in the Biblioteca Vallicelliana at Rome. (*Studi*, ii. no. 450).

Kohl refers to a "weltkarte" of the middle of the sixteenth century, which is given in the *Mémoires de la société de Nancy*, 1832.

— A. D. 1550-53.

Two portolanos of Pierre Desceliers, one in the British Museum, and the other at Vienna. Cf. *Brit. Mus. Cat. of MSS.*, no. 24065; Harrisce, *Cabots*, 230; *Bull. de la Soc. de Géog. de Paris*, Sept. 1852 and Sept. 1856.

A MS. parchment chart (1550) of Diego Gutierrez in the Dépôt des cartes de la Marine at Paris.

62. A. D. 1551. **The world by Apian.**

The original is an engraved "charta cosmographica" in the *Cosmographia* of Petrus Apianus, published at Paris in 1551, with additions by Gemma Frisius. The map is not in the Antwerp edition of 1541, and differs from the one there given. North America is a narrow continental land, north of which Asia and Europe unite. See notes on the bibliography of Apian in *Nar. and Crit. Hist. of America*, vol. ii.

63. A. D. 155-? **The world by Martines (?).**

The original is a planisphere from a MS. atlas, whose names are mostly Italian with some Spanish ones, which formerly belonged to the Duke de Cassano Serra, and is now in the British Museum. Kohl finds its American portion to correspond closely with a map of Joannes Martines of 1578 in the British Museum, and supposes this to be by

him also. The later map has meridians of longitude, which this has not. South America is called "Peru" in this map, but "America" in the later one. The general outline of the new world resembles that of Porcchachi's maps. The huge antarctic continent so common in maps of this time, is shown.

— A. D. 1552.

Münster's maps in the Basle Ptolemy of this year, repeated from the editions of 1540-42-45.

— A. D. C. 1553.

A parchment planisphere in the Dépôt des Cartes de la Marine at Paris. Harrisse, *Cabots*, 238.

64. A. D. 1554. **America by Bollero.**

The original is a small woodcut, — called "Brevis exactaque totius novi orbis ejusque insularum descriptio recens — Joan Bollero edita," — which appears in various publications of about this time, including Gomara's *Historia general de las Indias*, to which Kohl credits it. The coasts north of Mexico and Labrador are wanting. Cf. Uricoechea, *Mapoteca Colombiana*, no. 12, and Winsor's *Bibliog. of Ptolemy*, sub 1561.

— A. D. 1554.

An atlas by Baptista Agnese in the Biblioteca Marciana at Venice (*Studi biog. e bibliog.*, ii. p. 139). This was issued in photographic facsimile at Venice in 1881. Cf. Winsor's *Bibliog. of Ptolemy*, sub 1561, for other maps of Agnese of about this time.

A map of André Thevet, cited by D'Avezac, *Sur la projection des Cartes*, Paris, 1863, p. 73.

A map of the world by Framenzini, engraved by J. de Musis.

65. **The world.**

The world, an elliptical projection, copied from the map in the Basle, 1555, edition of Grynæus, in the Grenville copy in the British Museum. It resembles map no. 49 (*ante*); and had earlier appeared in the 1537 edition of the *Novus Orbis*.

— A. D. 1555.

A portolano by Le Testu in the French ministry of war. Cf. Winsor's *Bibliog. of Ptolemy*, sub 1561.

66. A. D. 1556. **America, in Ramusio, vol. iii.**

The original was made for Ramusio by Gastaldi (about 1550) from material gathered by Oviedo, and sent to Ramusio by the Florentine Hieronimo Fracastoro. It is called: "Universale della parte del mondo nuovamente ritrovata." Ramusio dates the introduction to this volume in 1553, which may perhaps indicate the date of the map; and the material upon which it was founded would seem to include results of Cabrillo's explorations on the California coast in 1542-43.

The maps of the new world, both in this edition, and in that of 1565, are: 1, New world; 2, Temistitan (Mexico); 3, Cusco in Peru; 4, New France and Newfoundland; 5, east part of Brazil; 6, part of America; 7, Taprohana; 8, Hochelaga, — a bird's-eye view of an Indian camp.

— A. D. 1556.

Vopellio's cordiform mappemonde in Girava's *Cosmographia*, Milan. There is a facsimile of it

published by Henry Stevens. It is sometimes found in the 1570 edition of Girava, which is the 1556 edition with a new title.

— A. D. 1558-80.

Atlas of Bertelli e Forlani, published at Rome, containing maps of North and South America. Cf. Sabin's *Dictionary*, ii. 500c. See no. 69. What is called Lafreri's Roman atlas, *Tavole moderne di Geografia*, is sometimes given as published at Rome and Venice, 1554-72. Forlani's map, *Universale Descriptione*, is cited as of 1565, 1570, etc. Cf. Thomassy, *Les Papes géographes*, p. 118.

67. A. D. 1558. **America by Homem.**

The original is a MS. map by Diego Homem in the British Museum, a part of a large general atlas by this Portuguese chart-maker, who inscribes it: "Diegus Homem cosmographus fecit hoc opus anno salutis, 1558." The words "mundus novus" are in a scroll on South America; but "America" in small letters is on the region north of the Amazon, which runs a general easterly course. The coast of Chili and the western coast of Patagonia are indicated by a dotted line. The California coast is carried a short distance above the peninsula of California. The Bay of Fundy runs nearly north. The St. Lawrence is broadened into a sea of uncertain limits. Cf. *Brit. Mus. Cat. of MS. maps*, 1844, vol. i. p. 27; Harrisse, *Cabots*, p. 243; and further on atlases of this time by Homem in Winsor's *Bibliog. of Ptolemy*, sub 1561.

— A. D. 1559.

Harrisse, *Cabots*, p. 244, cites a mappemonde of Andreas Homo, preserved in the Ministry of Foreign Affairs at Paris.

68. A. D. 1560. **America by Nicollo del Delfinato.**

The original is an engraved map belonging to the *Navigazioni del mondo novo*, published in Venice in 1560, and is inscribed: "Opera di M. Nicolle del Delfinato, Cosmografo del Christianissimo Re." Kohl points out its resemblance to a map edited by Forlani and made by Gastaldi in 1560, though it shows less, but on a large scale. It shows from Labrador to 15° below the equator on the east coast; and omits all north of Mexico on the west coast. Both this and Forlani's were published by the same publisher in Venice.

69. A. D. 1560. **The new world by Gastaldi and Forlani.**

An engraved map (in the British Museum) inscribed: "Paulus de Furlanis Veronensis opus hoc exmi Cosmographi Dni Jacobi Gastaldi, Pedemontani instauravit. . . Venetis, Joann. Francisci Camotii aereis formis. . . Anno MDLX."

North America is connected with Asia; the North Pacific extending only to the 40° N. Lat. The Amazon runs north. The La Plata is not developed. A polar sea is north of Labrador.

The map was again issued unchanged, by Forlani in 1576.

— A. D. 1560.

A small globe in the mathematical salon at Dresden. Cf. Wieser's *Magdalenstrasse*, p. 70, where one by Johannes Pratorius is referred to, as being in the same place, and assigned to 1568.

— A. D. 1561.

A map by Girolamo Ruscelli in the edition of Ptolemy, published at Venice. The coasts of California and Chili are left uncertain. The same book has several sectional maps of America. These maps were repeated in the Ptolemies of 1562, 1564, and 1574.

An atlas of Bartolomeo Olives di Majorca in the Royal archives at Naples, nos. 2 and 3, showing parts of North America and the Antilles. Cf. *Studi biog. e bibliog.*, ii. no. 428.

An improved map in Hontor's *De Cosmographia rudimentis*, published at Basle.

— A. D. 1562.

A map of the younger Diego Gutierrez. HARRISSE, *Cabots*, p. 152.

— A. D. 1562-66.

Carta nautica of Paolo Forlani in the National library at Paris. It is figured in Santarem's *Atlas*. Cf. *Bull. de la soc. de géog. de Paris*, 1839; *Studi biog. e bibliog.*, ii. p. 142.

The catalogue of the King's maps in the British Museum puts a map of Forlani under 1562. Cf. Thomassy, *Les Papes géographes*, 118.

— A. D. 1563.

Atlas of Giorgio Sideri detto Callapoda di Candia, containing ten maps, one showing the two hemispheres, and another, America. It is in the Biblioteca Marciana at Venice. Cf. *Studi*, etc., ii. no. 433.

— A. D. 1564.

An atlas of Baptista Agnese, dated May 25, 1564, referred to in *Brit. Mus. Cat. of MSS.*, no. 25442; and another in the Biblioteca Marciana. Cf. HARRISSE, *Cabots*, 189. There are various undated atlases of Agnese, mentioned in Winsor's *Bibliog. of Ptolemy*, sub 1597.

— A. D. 1566.

An engraved map of Zaltiere or Zaltorius of Bologna, measuring $15\frac{1}{2} \times 10\frac{1}{2}$ inches, called the earliest map to show the straits of Aniau. Cf. *Nar. and Crit. Hist. of America*, iv. p. 93.

A brass globe in the town library at Nuremberg by Johannes Praetorius. Cf. Ghillany's *Behaim*, p. 60.

A MS. map by Des Liens of Dieppe in the National library at Paris. Cf. *Nar. and Crit. Hist. of America*, iv. 78.

An engraved map of Johannes Paulus Cimberlinus of Verona, showing North America as a part of Asia. Mr. Brevoort has a copy.

— A. D. 1567.

An atlas of this date is quoted by Santarem as being in the Ternaax bibliothèque. Cf. *Bull. de la Soc. de Géog. de Paris*, 1837 (viii.), p. 175. It shows the new world.

70. A. D. 1568. America by Homem.

The original is a MS. map in the Royal library at Dresden, purporting to be by "Diegus cosmographus," a Portuguese living in Venice in 1568. Kohl identifies him with Diego Homem, and traces the resemblance of this map to Homem's map of

1558 (no. 67 ante). This map has a northern coast of North America drawn in, which that of 1558 did not have.

The La Plata river is made something like an interior sea, with islands, and has a small channel connecting with the ocean on the northern coast of Brazil.

71. A. D. —. The world.

A map in a double-cordiform projection, following an engraved original in the British Museum. Its only inscription is "Ant. Sal. exc. Romæ." A legend on it speaks of America being better drawn than in other contemporary maps.

Northern Asia extends in a peninsular shape round the north pole, with "Groelandia" as a subordinate peninsula. The "Baccalarum regio" has a group of islands lying east of it, called "Insule Corterealis." A "Fretum arcticum" separates this from the polar land. The Amazon discovered in 1542 is left out. The Chilian coast is "Littora incognita."

It is sometimes assigned to about the year 1540.

— A. D. 1569.

The great mappemonde of Gerard Mercator. Cf. references in *Nar. and Crit. Hist. of America*, iv. 369; and in Winsor's *Bibliog. of Ptolemy*, sub 1597.

72. A. D. 1570. America by Ortelius.

Engraved map in the first edition of the *Theatrum Orbis Terrarum*, of Abraham Ortelius, the most learned geographer of his time. He gives in his text accompanying the map about twenty Spanish, Italian, German and French authorities for his sources,—most of which he might have found in Ramusio, though his map is far in advance of that presented by Ramusio. This delineation of America with that of Mercator, may be said to have established a type for the contour of the Americas, which long prevailed. For various subsequent issues see *Nar. and Crit. Hist. of America*, iii. 34; iv. 369.

Reference may be made to a globe of this date by Francisco Basso, a Milanese; and a MS. map by Jehan Cossin of Dieppe, in the National library at Paris. HARRISSE, *Cabots*, 217.

— A. D. 1572.

The mappemonde in Porcacchi's *L'Isole piu famose del mondo*, published at Venice, repeated in later editions, 1576, 1590, etc. One of them is given in facsimile in Stevens's *Notes*, etc.

— A. D. 1573.

Lelewel, *Moyen âge*, vol. i. pl. 7, cites a "Orbis terrarum a hydrographo Hispano in plano delineatio."

— A. D. 1574.

Two maps of the western hemisphere (one dated 1574) in the *Theatri Orbis Terrarum Enchiridion* of Philippus Galeus, "per Hugonem Favolium illustratum," published at Antwerp in 1585.

73. A. D. 1575. America by Thevet.

An engraved map, according to Kohl, in Thevet's *La France Antartique* (Brazil about Rio Janeiro), published in 1575 and 1581. The map is called "Le nouveau monde decouvert et illustré de nostre

Temps," and though Thevet professes that he based it on new material, it is largely a copy of Ortelius, with a more profuse ramification, to the rivers, of which Thevet probably had no further information than Ortelius had; but he gives some French names, which Ortelius does not give. He goes a little farther north than Ortelius. There was also a map in Thevet's *Cosmographie*.

Cf. a map in Belleforest's *Cosmographie*.

74. A. D. 1576. The world by Sir Humphrey Gilbert.

An engraved cordiform map in Gilbert's *Discourse of a Discovery for a new passage to Cathai*, London, 1576, where the chart is called "A general map made onelye for the particular declaration of this discovery." The map is similar in aspect to Apian's (no. 62), but the northern waters of America are different, in order to illustrate Gilbert's views, according more with Homem's in making open water west of Labrador and neighboring parts, which are made islands. There is a facsimile in the *Nar. and Crit. Hist. of America*, iii. ch. 6.

Wieser in his *Magalhães-Strasse*, p. 72, refers to an erd-globus of Apian preserved in the Hof bibliothek at Munich.

75. A. D. 1578. The world by Martines.

A MS. map in the British Museum, marked: "Joan. Martines en Messina, año, 1578." It is of a double hemispherical projection, and in outline America is of the Ortelius type, though very different in the region of the St. Lawrence.

The British Museum *Catalogue of MS. maps*, i. p. 29, shows the Martines atlas to contain various American maps: 1, the world; 2, the two hemispheres; 3, the world in gores; 10, west coast of America; 11, coast of Mexico; 12, 13, South America; 14, Gulf of Mexico; 15, part of east coast of North America.

76. A. D. 1578.

A duplicate of no. 75, — less perfect.

77. A. D. 1578. The world by Martines.

A MS. map, smaller than nos. 75 and 76, likewise in the British Museum, and differing in parts from that map, particularly in the St. Lawrence region; and in making the Amazon a long river, rising in Patagonia, while in the other map, it has a short course and is all north of the La Plata. The mountain ranges in both Americas stretch east and west.

The British Museum MSS., no. 22018, is a portolano of Martines, dated 1579. The *Brit. Mus. Cat. of MS. maps*, 1844, i. 31, gives a map of the world by Martines (*sub anno* 1582). The South American part is facsimiled in colors in Bibliophile Jacob's *Moyen Age*.

78. A. D. 1578. The world by Frobisher.

An engraved sketch in Best's *True Discourse*, regarding Frobisher's voyage, showing that commander's view of a passage, called after himself, connecting the Atlantic with the Straits of Anian. The coasts discovered since Ptolemy's time are drawn in pricked lines. Cf. Collinson's *Frobisher*, and *Nar. and Crit. Hist. of America*, iii. ch. 3.

There is a mappemonde in the *Speculum Orbis terrarum* of Cellarius.

— A. D. 1582.

An elliptical mappemonde in Popellinière's *Trois mondes*. It is of the Ortelius and Mercator type.

A mappemonde by A. Millo is numbered 27470 in the Brit. Mus. MSS.

— A. D. 1583.

Map in the edition of this year of Reisch's *Mar-garitha philosophica*, published at Basle. Cf. Uricoechea, *Map. Colomb.*, no. 15.

79. A. D. 1587. The world by Myritius.

An engraved map in the *Opusculum geographicum rarum per Joannem Myritium Melitensem. Ingolstadt: i anno MDCCC.* The map being called "Universalis orbis descriptio." Myritius was a knight of Malta, and dates his preface in 1587, when Kohl conjectures his map (of which he gives no account) may have been made.

The map makes North America a part of Asia, resembling in this respect that of Forlani of 1560.

Reference may be made under this date to the map in Hakluyt's edition of Peter Martyr, published in Paris. There is a facsimile in Stevens's *Notes*, &c.; and a sketch in the *Nar. and Crit. Hist. of America*, iii. p. 42.

The map in the Ortelius of this year was repeated in the edition of 1598. Uricoechea, no. 16.

80. A. D. 1589. The world by Hakluyt.

An engraved map in Hakluyt's *Principall Navigations*, London, 1589. Kohl points out how South America is improved over Ortelius's delineation; but he remarks as singular, that Drake and New Albion, Ralceigh and Virginia, with Frobisher and his straits should be ignored in North America by an English authority. There is also no trace of Drake in the regions about Magellan's straits, — the Spanish authorities seemingly furnishing all the information Hakluyt had. He calls North America, "America sive India nova."

81. A. D. 1589.

A duplicate of no. 80, — less perfect.

82. A. D. 1589. The world by Hondius.

An engraved map, on which a statement that it is intended to show the tracks of Drake and Cavendish, is signed by Jodocus Hondius, 1589. The circumnavigations of these two English explorers are marked by pricked lines; and in one corner a small sketch of Drake's harbor on the California coast, "Portus novæ Albionis," is made. Tierra del Fuego is made a group of islands for the first time, while the great antarctic continent is contracted on this side nearer the southern pole, though it is made to extend as far as the tropic of Capricorn on the other side of the globe. In an inscription referring to the Tierra del Fuego group Hondius remarks that Cavendish and the Spaniards do not accept Drake's views, making a continent the southern boundary of the Straits of Magellan; and on later maps Hondius seems to have accepted these other views. Cf. Uricoechea, no. 25.

83. A. D. 1589. America by Cornelius Judæus.

The western portion of a map called: "Totius orbis cogniti universalis descriptio." Corn. Judæus.

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Antuerpia. Pridie Cal. Nov. A. 1589, fecit." It follows the Ortelius and Mercator type; and it particularly resembles the Mercator map of 1587. It has the usual antarctic continent.

Cf. a map of Judæus in his *Speculum orbis terræ*, 1593.

— A. D. 1592.

The Molinæux globe preserved in the Middle Temple, London.

— A. D. 1593.

Map resembling the Ortelius type in the *Historiarum Indicarum libri xvi.* of Maffæius. Cf. Uricoechea, no. 19.

84. A. D. 1594. *America by Peter Plancius.*

An engraved map entitled: "Orbis terrarum typus de integro multis in locis emendatus auctore Pet'o Plancio, 1594." Kohl points out its resemblance to Hakluyt's map of 1589. Plancius gives the four large islands about the north pole, which Purchas says were invented by Mercator. There are indications of Frobisher's Voyage; but none of Drake's. Kohl thinks that Plancius had Spanish and Portuguese originals, which are unknown to us, and which he used to advantage in drawing the interior parts of South America.

The map is found in the Dutch edition of Linschoten, 1596. Blundeville, in his *Exercises*, speaks of a Plancius map "lately put forth in the yeere of our lord, 1592." The same map re-engraved, but not credited to Plancius is in the Latin Linschoten, 1599. The English Linschoten of 1598 has the map of the Hakluyt of 1589, re-engraved from Ortelius.

Under this year also, we must put De Bry's maps of the world, of this and later dates; contained in the *Great Voyages*, parts iv. and xii.

Cf. also a map of the world by Quadus.

Santarem cites as in the Propaganda at Rome a portolano of Jean Oliva, the sixth of whose maps is a planisphere showing the Straits of Magellan. Cf. *Bull. de la Soc. de Géog.* (1847), vii. 308, where is also as no. xii., another portolano of the sixteenth century, without name or date, but showing on one of its maps the eastern coast of America; and again, p. 313, still another of the same century.

— A. D. 1595-98.

The map in Giovanni Botero's *Relationi universali*, Venice, 1595, and later. Cf. *O'Callaghan Catalogue*, nos. 339, 340; Sabin's *Dictionary*, ii. 6799; Rich (1832), no. 96. There was a later edition in 1603; *Relaciones universales del Mundo*, published at Valladolid, which contains both a map of the world, and one of the two Americas.

— A. D. 1595.

A Dutch map of the world by Loew.

— A. D. 1596.

The maps in the edition of Ptolemy, printed at Venice, and repeated in editions under date of 1597, 1608 and 1617.

85. A. D. 1597. *The world by Porro.*

A small engraved map, marked "Universi orbis descriptio a Hieronymo Porro Pativino incisa." It

is of the Mercator type; and having been first printed separately was later published in an edition of Ptolemy at Cologne in 1597, and in another at Venice in 1598. America is called "America, sive India nova." There is the usual Southern polar continent. This and other maps showing America are numbered 2, 29, 34, and 35 in the Ptolemy of 1597.

Under this date also, is a map of the Ortelius type in Wytfliet's continuation of Ptolemy. There is a facsimile of it in the *Nar. and Crit. Hist. of America*, vol. ii.

The globe of Hondius, embodying discoveries in America.

The map in Magninus's *Geographia*.

86. A. D. 1598. *The world by Molinæux.*

An engraved map, belonging, as Kohl asserts, to the 1598 edition of Hakluyt, but rarely found in it. The facsimile of it issued by the Hakluyt society in 1880, is dated 1600. Kohl refers to Hakluyt's promise in the 1589 edition to give a map by Molinæux, and traces the correspondences in this map to the globe in the Middle Temple, assigned to Molinæux. The map is an attempt to carry out some geographical problems on theoretical grounds, as compare his treatment of the St. Lawrence and the Lakes. The California coast is not carried north of Drake's New Albion. He omits the antarctic continent and Mercator's arctic islands, and the northern coasts of America and Asia. He ignores the usual fabulous Atlantic islands, except Frisland, which he puts southwest of Iceland. He makes an insular group of Tierra del Fuego, and removes the protuberant part of the contour of the Chilian coast, as represented by Mercator and Ortelius; though he preserves a smaller projection nearer the Straits of Magellan. In this he assigns the explorations of Drake in 1577 and of Sarmiento and Cavendish in 1587, as authorities. Contrary to most maps of the time he makes the Pacific in lat. 38°, 1200 leagues wide, and the distance from Cape St. Lucas to Cape Mendocino 600 leagues.

A map of the Ortelius type is in Münster's *Cosmographia*. The Italian Ortelius of this year, *Il theatro del Mondo*, published at Brescia, has three maps showing America, pp. 1, 3 and 11.

— A. D. 1599.

A portolano of G. Oliva. *Brit. Mus. MSS.*, no. 24943.

87. A. D. 1600 (?) *Spanish map of America.*

An engraved map in the British Museum, published about 1600, and showing the Ortelius and Mercator type, but more closely resembling that of Ortelius (1570). It has the great southern continent. Kohl says that the British Museum Catalogue says it was published in Madrid; but he has doubts, and thinks if so, that the editing was not done by a native Spaniard; and he is inclined to place it several years earlier than 1600.

A map, based on Wytfliet, in the *America sive novus orbis* of Metellus, was published at Cologne, in this year. Uricoechea, no. 24.

88. A. D. 1601. *America by Herrera.*

An engraved map in the 1601 edition of Herrera's *Descripción de las Indias*. It shows the line of demarcation, on both sides of the globe, in accordance with Spanish views. A distinguishing feature is the

great width of the northern Pacific. It was reproduced in the edition of 1622; and in the Torquemada of 1723 with some changes.

— A. D. 1602.

Gabriel Talton's chart showing the east coast of the two Americas, preserved in the National Library at Florence. Cf. *Studi*, etc., ii. no. 453.

Giovanni Costo's planisphere of the old and new world, given by M. Canale to Edw. Lester, U. S. Consul at Genoa, in 1844. Cf. *Studi*, etc., ii. p. 181.

89. A. D. 1606. The world by Céspedes.

An engraved map in Céspedes's *Regimiento de Navegación*, Madrid, 1606. It is of small size, as were all the maps of the new world published in Spain. It resembles no. 83, and ignores the English and French discoveries in North America. The western line of demarcation corresponds to Herrera; the eastern is more favorable to Portugal. The northern shores of America and Asia are but vaguely sketched.

— A. D. 1608.

Map in Gotardus Arthus's *Historia Indiae orientalis*, published at Cologne. Uriceochea, no. 26.

90. A. D. 1613. The world by Oliva.

From a MS. portolano preserved in the Egerton MSS. in the British Museum. The general map is called "Typus orbis terrarum." It is inscribed: "Joannes Oliva fecit in civitate Marsilliae, Año 1613." It has most of the points of Hakluyt's map; but gives South America better. It has the usual arctic islands and antarctic continent of this period. The language of its names is Italian, occasionally Latin. The *Catalogue of MS. maps, Brit. Mus.*, 1844, i. 33, shows this portolano to contain maps of the east coast of North America, of the West Indies, and of South America.

The Brit. Mus. MSS., 25714, is a map of the world by Oliva, put under 1609.

Maps of the world, and of America in the *Detectiones Freti* of Hudson, edited by H. Gerritz.

A map of America by Michael Mercator in the 1613 edition of Mercator's *Atlas*.

— A. D. 1620.

An atlas by Salvatore Oliva in the Biblioteca Laurenziana, Florence, showing the two Americas. Cf. *Studi*, &c., ii. p. 186.

— A. D. 1625.

Hondius's map of the two Americas in Purchas's *Pilgrimes*, iii. 857.

— A. D. 1626.

The map in John Speed's *Prospect*, engraved by Abraham Goos.

91. A. D. 1628. The world (Drake's Voyage).

An engraved map of small size for *The World encompassed by Sir Francis Drake*, London, 1628. The southern continent is called "Magallania." California is an island.

The map is by Jodocus Hondius, and is reproduced in the Hakluyt Society's ed. of *The World encompassed*. Cf. the Hondius map in the 1613 ed. of Mercator's *Atlas*. Cf. Uriceochea, nos. 29, 30.

92. A. D. 1630. America by De Laet.

An engraved map, "Americæ sive Indiæ occidentalis tabula generalis," in De Laet's *Nieuwe Wereldt*, published at Leyden in 1630. He credits Hessel Gerritz with making the maps from the best published and collected information which De Laet could gather for his use. North America above Labrador and Cape Mendocino is omitted. California is a peninsula, though it was generally made an island at this time. South America is too broad. The southern shore of Tierra del Fuego is left undefined. There is no southern continent. It was repeated in the various editions of De Laet.

III.

NORTH AMERICA.

* Maps of THE TWO AMERICAS contained in Section II. need of course to be consulted to perfect this enumeration of the delineations of North America.

93. A. D. 1525. North America by Lorenz Friess.

From the "Carta marina Portugalensium," made in 1525 by the German geographer, Friess. What is shown of North America is the coast from Yucatan (apparently an island) well up the eastern coast of the present United States, or even farther. The continent is called "Terra de Cuba, partis affricæ," while the island, Cuba (not named), is partly shown. The whole geography is very confused and uncertain, and a segment of a large land or island on the eastern edge of the map may perhaps, as Kohl thinks, stand for Newfoundland. There are names on the map which we cannot trace to Ayllon or Ponce de Leon; which leads Kohl to suspect other voyagers on the coast of which we have no other knowledge. It very likely preserves some of the sources used in the Cantino map.

— A. D. circa 1530.

Atlas of about the middle of the century, preserved in the Riccardi palace at Florence; has some maps of North America. Cf. *Jahrbuch des Vereins für Erdkunde in Dresden*, 1870, pl. vi. and ix.

94. A. D. 1566. North America by Zaltieri.

A map engraved on copper at Venice in 1566. It resembles no. 69 for North America, except that in the present map the Straits of Anian separate North America from Asia. The whole of the northeastern part is erroneous; and it is not easy to define correspondences. Newfoundland is seemingly a group of islands. A large lake, not connected with what is apparently meant for the Saint Lawrence, flows through a river called "S. Lorenzo," which might stand for the Penobscot. It is sketched in the *Narr. and Crit. Hist. of America*, iv. 93. It may be compared with a map of Des Liens (North America) of this same year (1566). There is an original in Harvard College Library.

— A. D. 1568.

A map of Diegus [Homem] preserved in the Royal Library at Dresden.

95. A. D. 1575. North America by Porcacchi.

A map entitled, "Mondo nuovo" in Porcacchi's *L'Isola più famosa del mondo* (1576), engraved by G.

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Porro. The text is largely based on Bordone. The map is little more than a reduction of Zaltieri (no. 94).

It originally appeared in the 1572 edition; and was repeated in the 1576 edition. It is sketched in the *Nar. and Crit. Hist. of America*, iv. 96.

— A. D. 1578.

The Martines Atlas in the British Museum, shows (nos. 10 and 15) the coast of North America. It is sketched in the *Nar. and Crit. Hist. of America*, iv. 97.

96. A. D. 1580. North America by J. Dee.

A MS. map in the British Museum presented by Dr. Dee to Queen Elizabeth, but perhaps not made by him, since it is not in his autograph. The California coast is carried well up beyond the peninsula; but there are no traces of Drake's New Albion. The St. Lawrence Gulf (except the west coast of Newfoundland) and river (without the lakes or any corresponding water) is very well defined. It is sketched in the *Nar. and Crit. Hist. of America*, iv. 98.

97. A. D. 1582. North America by Lok.

An engraved map in Hakluyt's *Divers Voyages*, 1582, since repeated in the Hakluyt Society's edition of that book, and in the *Nar. and Crit. Hist. of America*, iii. 40; iv. 44.

98. A. D. 1593. North America by Judæis.

Inscribed "Americæ pars borealis, Florida, Baccalaos, Canada, Corterealis, a Cornelio de Judæis in lucem edita, 1593." It belongs to his *Speculum Orbis terræ*. It is sketched in the *Nar. and Crit. Hist. of America*, iv. 97.

99. A. D. 1600. North America by Quaden, or Quadus.

Engraved map by Mathias Quaden, or Quadus, which appeared in the *Geographisches Handbuch*, Cologne, 1600, and is entitled, "Nova Orbis pars borealis." The Pacific coast above Lower California is not shown. The northern parts are of the Mercator type. The Central America region is omitted. The mountain ranges run east and west. It is sketched in the *Nar. and Crit. Hist. of America*, iv. 101.

100. A. D. 1625. North America [by Briggs] from Purchas.

Engraved map in Purchas's *Pilgrimes*, vol. iii. Kohl says it has more original value than the other maps in that volume. Hudson's Bay is left with a part of the western bounds of it unfixed, while the western coast of the continent is not drawn above 45°, indicating by legends on the map a supposed northwest passage. California is shown as an island, with a northern limit under 42°, "as appears by a map brought to London out of Holland."

— A. D. 1635-1636 (?)

The undated *America Septentrionalis* of Joannes Janssen, published at Amsterdam. The *Novissima et accuratissima totius America Descriptio per N. Vischer*, of about the same date. The English translation by Henry Hexham of the Hondius-Mercator Atlas, printed at Amsterdam in 1636, has in vol. i. a

map of the world, showing much the same configuration as is given in vol. ii. in a general map of America, particularly as regards the northern parts.

— A. D. 1644.

A map of America in an edition of Linschoten, published at Amsterdam. It is of the Mercator type.

— A. D. 1646.

Two maps of America, "Petrus Koerius cælavit Anno do. 1646," in Speed's *Prospect of the most Famous Parts of the World*, London, 1668.

— A. D. 1650.

An engraved map of North America by Sanson d'Abbeville. HARRISSE, *Notes sur la Nouv. France*, no. 325.

— A. D. 1651.

An edition of Speed's *Prospect*, 1676, has a map of the world dated 1651, showing North America.

— A. D. 1652.

A map by Visscher, *America nova descriptio*, marked "Autore N. I. Piscator."

— A. D. 1655.

A map in *America, or an exact description of the West Indies*.

— A. D. 1656-1663.

Dr. Peter Heylyn's map of America, in his *Cosmographia*, Robert Vaughan, sculp. There were later editions.

— A. D. 1657.

The *Amérique Septentrionale* of G. Sanson and later editions.

— A. D. 1659.

A "New and accurate map of the world" in the *History of the World*, by Dion Petau or Petavius, London, 1659.

— A. D. 1666.

W. Hollar's map of America. Cf. *Catalogue King's maps in Brit. Museum*, i. 23.

— A. D. 1669.

The map of North America in Blome's *Description of the World*; again in 1670, following Sanson.

— A. D. 1670.

The map in Ogilby's *America*.

— A. D. 1673-74.

Joliet's earliest map, showing North America, of which a reproduction is given in the *Revue de Géographie*, 1880, and in other places; and a sketch in the *Nar. and Crit. Hist. of America*, iv. 208.

— A. D. 1678.

Map of the world in Kircher's *Mundus Subterraneus* (Amsterdam), of the Ortelius type.

— A. D. 1681-84.

Franquelin's MS. map of 1681 made from Joliet's data, of which there is a sketch in the *Nar. and Crit. Hist. of America*, iv, 218; a configuration more elaborately worked out in his great map of 1684, of which there is a sketch in *Ibid.* iv, 228.

— A. D. 1683.

Hennepin's map of North America, dated 1683, 1697.

— A. D. 1685-98 and later.

The map in R. Burton's [N. Crouch's] *English Empire in America*.

— A. D. 1691.

Map of North America in Leclercq's *Établissement de la Foi*, reproduced in Shea's translation of that book.

— A. D. 1692-93.

Sanson's map of North America (1692); and the map published at Amsterdam in 1693 by Mortier. There were later dates.

— A. D. 1694.

L'Amérique Septentrionale of Hubert Jaillot; and his map of the world in 1696.

— A. D. 1700.

Delisle's map of America.

— A. D. 1702.

The map of North America in Campanius' *Nya Sverige*, of which there is a facsimile in the *Nar. and Crit. Hist. of America*, iv, 394.

— A. D. 1709.

La Hontan's map, *Carte Generale de Canada*. The 1703 edition has a sectional map.

— A. D. 1710.

John Senex's map of North America, of which there is a reproduction in David Mill's *Report on the Boundaries of the Province of Ontario*, Toronto, 1873.

— A. D. 1717.

Herman Moll's map of North America, in his *Atlas*. Moll's maps were used in Oldmixon's *America*, 1708 and 1741.

— A. D. 1714-22.

The *Hémisphère septentrional* of Guillaume de l'Isle; and his *Carte d'Amérique*.

— A. D. 1731.

L'Amérique mise au jour par Danet, Paris.

— A. D. 1733.

Henry Popple's *Map of the British Empire in America, with the French and Spanish Settlements adjacent thereto*.

— A. D. 1738.

Map of America in Keith's *Pennsylvania*.

— A. D. 1740.

Delisle's map of North America, of which there is a reproduction in Mill's *Boundaries of Ontario*, 1873.

— A. D. 1741.

Moll's map of North America in Oldmixon's *British Empire*.

— A. D. 1744.

Bellin's map in the *Nouvelle France* of Charlevoix, and his map of the world in 1748.

— A. D. 1746.

The *Amérique Septentrionale* of D'Anville; and the *America Mappa* of Homann.

— A. D. 1747.

The North America of Bowen's *Geography*.

— A. D. 1755-56.

D'Anville's map of North America, and the reproduction of it, "improved" in Douglass's *Summary of the British Settlements in North America*, 1755 (English edition). The map in John Haske's *Present State of North America* (2d ed.) showing the extent of the British claim to territory and the map (1756) in Mill's *Boundaries of Ontario* (1873) showing the French claim.

— A. D. 1757.

L'Amérique Septentrionale, published by Covens and Mortier at Amsterdam; and that in Robert de Vaugondy's *Atlas Universel*.

— A. D. 1760.

L'Amérique, par Sanson rectifiée par Robert, contained with others in Van der Aa's *La Galerie agréable du Monde*.

— A. D. 1762.

L'Amérique par Janvier in the *Atlas Moderne*.

— A. D. 1763.

Delisle's *L'Amérique* of 1722, corrected by Buache. Mat. Scuterius' map of North America. Bowen's *Map of North America*.

. The maps at this time, and later, gave the new definitions of bounds, as fixed by the Treaty of Paris in 1763.

IV.

NORTHERN PARTS OF NORTH AMERICA.

. The maps in Sections II. and III. need to be consulted to supplement the enumeration of the present section.

— A. D. 1496-1631.

J. W. Rundall's map (modern surveys) of Arctic explorations (Baffin's Bay, Hudson's Bay, etc.) between these years is in Thomas Rundall's *Voyages*

towards the Northwest, published by the Hakluyt Society, 1849. See also Petermann's "Karte der Arktischen und Antarktischen Regionen, zur Übersicht der Entdeckungsgeschichte" in his *Geographische Mittheilungen*, xiv. (1865) pl. 12; und *Ergänzungsband*, iv. no. 16, pl. 1; and the map in Peschel's *Geschichte der Erdkunde*, ed. Ruge, 1877, p. 288.

101. A. D. 1503. The North Atlantic.

From a Portuguese portolano, showing the northern coasts, above Nova Scotia. Greenland is tolerably drawn with a broad expanse of water on the west (Baffin's Bay). A second Greenland (Engronelant) is drawn as a peninsula extending from Scandinavia, as in earlier maps, and separated from the true Greenland by a passage to the polar seas.

— A. D. 1503-1504.

A Portuguese chart showing the northeastern coast, given in Kohl's *Discovery of Maine*, p. 174; and in the *Nar. and Crit. Hist. of America*, iv. 35.

— A. D. 1514-1520.

The coast from Nova Scotia to Labrador, as shown in a sketch given in the *Nar. and Crit. Hist. of America*, iii. 56. It is a portion of a chart giving a large part of the coast. Cf. Kohl, *Discovery of Maine*, p. 179; Stevens' *Notes*, and Kunstmann's *Atlas*.

— A. D. 1522-1525.

A map of Lorenz Friess in the *Ptolemy* of 1522 shows Greenland as an elongated island in the N. W. of Europe. There is a facsimile of it in Norden-skjöld's *Broderus Zenos*, Stockholm, 1883. This map is not contained in the 1525 edition of Ptolemy, where a map, "Tab. nova Norbergiæ et Gotticæ," shows Greenland as a much broader peninsula of Northwestern Europe, called "Engronelant." No. 49 of the 1525 edition is still another delineation, representing "Gronlanda" as a long, narrow peninsula extending southwestward from the northwest of Europe. A reproduction of this map, ascribed to Ancyparius, the editor of the Ptolemy of 1522, is given in Witsen's *Noord en Oost Tartarye*, vol. ii. (1705).

102. A. D. 1525. Labrador and Greenland, by Lorenz Friess.

From the atlas of Lorenz Friess, 1525, Labrador is called "Terra nova Conterati" (of Cortereal), who is said in a legend to have discovered it in 1510, instead of 1501. The abundance of herring and stockfish (cod) on the coast is mentioned. The southern part of Greenland is east of Davis Straits. "Terra laboratoris" is made an island, west of, and near to the lower point of Greenland. The Azores (Ilas Axagoras) are shown.

— A. D. 1532.

A map in Ziegler's *Scandia*, etc., published in Strasbourg, and again in 1536, gives a sweep of unbroken coast which he calls "Terra Baccalaos," "Ultiora Gronlandia," "Incognita." Both editions are in the Carter-Brown Library (*Catalogue*, i. nos. 103, 120). There are copies of the 1532 edition in the Collections of Mr. Chas. Deane and Mr. Jas. Carson Brevoort.

103. A. D. 1534. Labrador by Bordone.

Engraved map in his *Isolario*, Venice, 1534. The country is called "Terra de lavoratore"; and it is the earliest extension of a large island which may, as Kohl thinks, stand for North America, whose S. W. point is separated by a strait from the "Mecido Novo" (South America). If this conjecture is correct the strait corresponds to such a passage, as shown in other maps of this time. In the ocean are the islands, "Asmaide," "Bresil," and "Astores."

104. A. D. 1542. Northeast Coast, by Rotz.

From Rotz's MS. *Booke of Hydrography* in the British Museum. It shows "New fonde Lande" broken into islands; the coast north of the straits of Belle Isle. A compass conceals what was perhaps intended for Davis or Hudson's Straits; and then north of this a curved peninsula marked "Cost of Labrador," which seems to be Greenland, extends towards "Islande." Kohl points out its resemblance to the Henri II. or Dauphin map (see sub no. 58).

— A. D. 1544.

The sectional maps of the Northeast coast, by Jean Allefonsee, of which sketches are given in the *Nar. and Crit. Hist. of America*, iv. 74-77. One of them is reproduced in Weise's *Discoveries of America*.

— A. D. xvi. cent.

Various maps, showing the Northeast coasts of North America, and extracted in part from mappemondes, are sketched in the *Nar. and Crit. Hist. of America*, iv. 81 et seq.

Portuguese atlases preserved in the Royal archives and in the Biblioteca Riccardiana at Florence, which show this coast, are mentioned in the *Studi biog. e bibliog. de la soc. ital.*, ii. nos. 451, 452.

— A. D. 1547.

The map of Scandinavia in Bordone represents "Engronelant" as a peninsula of Europe.

— A. D. 1548.

The "Della Terra nova Bacalaos" by Gastaldi in the Italian Ptolemy of 1548, of which there is a sketch in the *Nar. and Crit. Hist. of America*, iv. 88.

— A. D. circa 1553.

Gastaldi's map, *Nuova Francia*, which appeared in the third volume of Ramusio in 1556. There are facsimiles of it in the *Nar. and Crit. Hist. of America*, iv. 91; and in Weise's *Discoveries of America*, p. 356.

105. A. D. 1558. Iceland by A. Mercator.

— A. D. 1561.

Russelli's *Tierra Nueva* in the Ptolemy of this year, showing the coast from Florida to Labrador. There are sketches of this map in Kohl's *Discovery of Maine*, 233; Lelewel, *Essai de Moyen Age*, 170; and *Nar. and Crit. Hist. of America*, iv. 92.

This edition has also a map, *Schenladia*, which shows a peninsula north of "Thyle" and beyond the "Mare Congelatum," which is a supposable Greenland.

106. A. D. 1562. The North Atlantic from the Ptolemy of 1562.

This is an engraved reproduction of the Zeni map, which had been first published in 1553, and had been followed in 1561 by Ruscelli. To the present Ptolemy copy by Moletta, that cartographer adds a note saying that its geography is confirmed by modern navigators, "as we know by letters and marine charts sent to us from divers parts."

See bibliographical memoranda relating to the Zeni map and its influence in Winsor's *Bibliog. of Ptolemy*, sub anno 1562.

— A. D. 1562.

An engraved map of the east coast of North America from Cape Breton to Florida made by Diego Gutierrez, the cosmographer of King Philip, and engraved by Cock.

— A. D. 1567.

"Gruntlandia" (Greenland) is shown in a map of the northern regions in *Olar Magni Historia*, published this year at Basle. There is a facsimile of the map in Nordenskiöld's *Bröderna Zenos*, Stockholm, 1883.

— A. D. 1570.

A map of the North Atlantic by Stephanus, based on Icelandic sources, given by Kohl in his *Discovery of Maine*, p. 107, and in Weise's *Discoveries of America*, p. 27. Ortelius gave this year in his *Theatrum Orbis Terrarum*, a map of the northern regions which he called "Septentrionalium Regionum Descrip.," showing "Estotiland" (apparently a part of the main), with "Groclant," "Groenlant," "Drogeo," "Island," and "Frisland" as islands in the north Atlantic. It was repeated in the editions of Ortelius of 1575, 1584, and 1592. There were new engravings of it in Münster's *Cosmographia* in 1595; and in the Cologne-Arnheim edition of *Ptolemy* in 1597.

107. A. D. 1575 (?) Northeast Coast.

From a MS. Portuguese map in the British Museum, inscribed: "On the 20th Nov. 1580, a Portuguese, Fernando Simon, lent this map to John Dee in Mortlake, and a servant of Dee copied it for him." It shows the coast from Cape Breton, north to Hudson's Straits. The St. Lawrence gulf is given, but not the river. Newfoundland is broken into islands. The map resembles that of Freire of 1546 (no. 58); but does not suggest Dee's own map of 1580, as sketched in the *Nar. and Crit. Hist. of America*, iv. 98.

108. A. D. 1578. Frobisher's Discoveries.

Taken from a map in Best's *True Discourse*, London, 1578, and confirming Frobisher's own map of the world (no. 78). There is an engraving of no. 108 in Collinson's *Frobisher's Voyages*, 1867, published by the Hakluyt Society.

109. A. D. 1580. The Polar Regions by Dee.

It represents the polar islands of Mercator; Greenland as a long island, with Estotiland as an island of uncertain limits, southwest of Greenland. "Icaria," "Frisland," and "Tula ins." lie east of Greenland. Dr. Kohl has not annotated it.

— A. D. 1585-87.

A modern map showing Davis's explorations is given in the Hakluyt's Society's edition of *Davis's Voyages*, p. 1.

110. A. D. 1587. Northeast Coast.

From a manuscript atlas in the British Museum, inscribed: *Livre de la Marine du Pilote Pastoret, l'an, 1587. S. F. M.* Dr. Kohl thinks the name may be "Prulut" or perhaps "Pasterot." It shows the coast from Cape Breton to La Mer Glacée. Newfoundland is a group of islands. The straits of Belle Isle is marked as where Cartier passed. The Greenland region resembles No. 104.

111. A. D. 1592. Northeast Coast by Molineaux.

An extract from Molineaux's globe in the Middle Temple, London, showing the St. Lawrence river and gulf; Newfoundland as islands; Davis Straits and Greenland. Molineaux had Davis's charts, now lost. Frobisher's Strait is made to separate the southern part of Greenland from an island, — an error long perpetuated. There is a sketch of this part of the globe in the *Nar. and Crit. Hist. of America*, iii. 213.

112. A. D. 1592. Polar Regions by Molineaux.

From his 1592 globe. Shows the north of Europe and Asia, but of America it gives only the northeast coast of Greenland. It omits Mercator's Polar islands, in which Molineaux finds no ground for belief.

113. A. D. 1597. Labrador and Greenland by Wytfliet.

The engraved map "Estotiland et Laboratoris terra" in Wytfliet's continuation of Ptolemy. It shows both coasts of "Fretum Joan Davis," and bears a resemblance to this part of the Molineaux globe (no. 111). The erroneous Frobisher's Straits (south of Greenland) are drawn, but not named. Frisland lies an island southeast of Greenland, of which it really was in Kohl's view the southern part.

Another Wytfliet map, "Nova Francia et Canada, 1597," is given in facsimile in the *Nar. and Crit. Hist. of America*, iv. 100. A third map of Wytfliet shows the coast from the St. Lawrence gulf to South Carolina. A fourth represents the archipelago of Newfoundland (as he understood it) and Labrador.

114. A. D. 1598. The North Atlantic, Ed. Ptolemy.

The map "Scandia" in the 1598 (Venice) edition of Ptolemy, translated into Italian by Cernot. A well-known Italian cartographer is known to have made some of the maps of this edition, and may have made this. The American shore is based on the Zeni map.

115. A. D. 159-(?) Greenland and Ireland.

This is called by Dr. Kohl "an English map, 159-?" but he gives no further information. It shows the eastern shore of Greenland, the erroneous "Forboshar's Straits," the islands "Freeseland" and "Island."

116. A. D. 1600? North Polar regions by Mercator.

Engraved map of a part of the northern hemisphere (above 60° lat.) in the *Mercator-Hondius Atlas*, Amsterdam, 1630; but it is assigned to Gerardus Mercator himself; and was made, as Kohl thinks, a little before Mercator's death in 1594. Kohl also calls it the first time the projection was used, which makes the north pole the centre. He represents the four large islands round the pole, which Mercator, getting the idea from Cnoyen, was the first at an earlier date to introduce into maps, and between which he supposes the oceans to flow to the pole, where the superfluous water is absorbed by the south. He places the magnetic pole under 74°, on a line from the pole to the Straits of Anian, — also thought by Kohl a first attempt to locate such pole, but he forgets the attempts of Ruysch, Martin Cortes, and Sanuto. Greenland is made an island with defined northern capes. The land about Davis's Straits is shown much in the same way as in the Molineaux globe of 1592 (no. 111). Mercator gives the same large inland fresh-water sea in northern Canada, with connection with the polar ocean.

A similar map on a smaller scale, extending only to 60° N. lat. is given in Purchas, iii. 625, as "Hondus his map of the Arctic Pole."

117. A. D. 1600. Arctic regions.

An engraved map in De Bry's *Indie Orientalis*, *tertia pars*, 1601, where it appears without other explanation than that it was made by "Wilhelmus Bernardus" (Barentz, the Dutch navigator). Kohl and Markham suppose it to have been made by Barentsz on his third voyage, 1596-97. The parts of America shown are Greenland, Fretum Davis, and Estotiland. Markham says regarding the facsimile of the original map which appears in the Hakluyt Society's edition of *Barentz' Three Voyages*, that "the map was first published in 1599 by Cornelius Claeszoon in the second part of the abridged Latin edition of Linschoten's *Itinerarium*; but it is wanting in some copies."

This may be compared with the Arctic parts of the map of the world by Molineaux, as reproduced by the Hakluyt Society in 1880.

— A. D. 1600.

A map by Metellus, "Estotilandia et Laboratoris terra." It shows "Groenlandiae pars," "Islandia," "Frisland," and "Terre de Laborador."

— A. D. 1601.

Harris, *Cabots*, p. 201, refers to a beautifully executed map of the Atlantic, marked: "1601, R. Dieppe par Guillemme Levassur le 12 de Juillet."

118. A. D. 1608. Greenland.

A little map, showing a small part of "Groenlant," marked also "Hold with Hope." Kohl credits it to Hudson, but gives no explanation.

— A. D. 1609.

The map in Lescarbot's *Nouvelle France*, of which there are sections in facsimile in the *Nar.* and *Crit. Hist. of America*, iv. 150, 152, 374, 378. It is also reproduced in the Paris reprint and elsewhere.

A map of about 1610, preserved in the French archives, and of which there is a copy in the *Mass. Archives*, is sketched in the *Nar. and Crit. Hist. of America*, vol. iii.

— A. D. 1611.

A map by Jodocus Hondius explaining Barentz's third voyage, which appeared in the Latin ed. of Pontanus's *Amsterdam*, 1611, and in the Dutch ed. of 1614. It is given in facsimile in Asher's *Henry Hudson the Navigator*, published by the Hakluyt Society, 1860. It is called "Tabula Geogr. in qua admirandae navigationis Cursus et recursus designatur."

— A. D. 16—.

Hondius's map of Iceland is given in Purchas, iii. 644.

119. A. D. 1612. Arctic Regions by Hudson.

Hudson's chart of his northern expedition between Greenland and Hudson's Bay. Kohl makes no comments on this map, which follows an engraved chart in De Bry's *Indie Orientalis*, *pars x*, 1613. A facsimile is given in Asher's *Hudson the Navigator*, published by the Hakluyt Society, 1860. It is called *Tabula Nautica*, . . . anno 1612.

120. A. D. 1612. The same.

On this copy Kohl remarks upon the absence of any reference to the map in De Bry's text, which he supposes was copied — as would appear to be the case — by De Bry from Hudson's own chart in the *Descriptio ac delineatio geographica detectionis freti . . . ab Henrico Hudsono Anglo*, Amsterdam, 1612; and again 1613. There are copies in Harvard College library. Cf. Camus, *Mémoire sur de Bry*, p. 258. The Portuguese designation is given to Newfoundland, — "Ilha de Bacalhao."

— A. D. 1612-13.

The Hondius-Mercator atlas of 1613. This has two maps of Europe, which include Greenland and adjacent parts, — one is by Hondius, the other by Mercator.

A portolano (1613) of Johannes Oliva of Marseilles, in the British Museum, in a chart of the north Atlantic gives the east coast of America from Norumbega to Hatteras. Newfoundland is better drawn than before, but Oliva seems to have been ignorant of Lescarbot's map.

Champlain's maps of 1612 and 1613. That of 1612 extends from the southern side of Cape Cod to Labrador, and that of 1613, though different, covers about the same range of coast. They are reproduced in the Quebec and Boston editions of Champlain, and in the *Nar. and Crit. Hist. of America*, iv. 380-382.

121. A. D. 1615. Hudson Straits by Baffin.

The original MS. map is in the British Museum. A colored facsimile is given in *Baffin's Voyages*, published by the Hakluyt Society, 1881; and it is given in outline in Rundall's *Voyages towards the Northwest*, published by the same society, 1849. The chart represents Baffin's fourth voyage. Capt. Buck in 1836 was the next to follow this route.

— A. D. 1616, etc.

Petermann in his *Geographische Mittheilungen*, vol. xiii. (1867), pl. 6, gives a map, "Das nördlichste Land der Erde entdeckt 1616 bis 1861," including Bylot and Baffin's map (1616), Ross (1818), Inglefield (1852), Kane (1855), and Hayes (1861).

122. A. D. 1619. Hudson's Straits and Bay.

An engraved map in La Peyrère's *Recueil de Voyages au Nord*, made as that editor says after Danish authorities, — possibly representing Munk's voyage in 1618-19, who named the straits and bay after King Christian. Baffin's Bay becomes "Gulf Davis." The maker of the chart was not aware seemingly of Hudson's explorations in the southern parts of Hudson's Bay.

The same or a similar map appears in La Peyrère's *Relation du Groenland*, Paris, 1647 and 1663.

— A. D. 1624.

Sir Wm. Alexander's map, in Purchas, of which a part is given in facsimile in the *Nar. and Crit. Hist. of America*, iii. 306.

— A. D. 1624-30.

The map by Chapelain, appearing in Isaac de La Peyrère's *Relation du Groenland*, Paris, 1663, is reproduced in an English translation in the volume on *Spitzbergen and Greenland*, published by the Hakluyt Society in 1835. The La Peyrère *Relation* refers to a map "per Martinum filium Arnoldi, anno 1624 & 1625," which had been used in the construction of it; and which was then preserved in the library of Cardinal Mazarin; also to a map made by Capt. Munk on his voyage, reprinted with his narrative, which agrees with a map of Hudson, owned by Chapelain. The same Hakluyt Society volume contains the map of Greenland accompanying Edward Pellham's *God's Power and Providence shewed in the . . . deliverance of eight Englishmen left in Greenland*, 1630, published in London, 1631.

123. A. D. 1625. Greenland.

An engraved map in Purchas's *Pilgrimes*, iii. 472. Kohl has not commented on it, except to call it Spitzbergen, which it seems to be, instead of the modern Greenland. Luke Fox's map (1633) also calls the Asiatic Island by the name of Greenland.

124. A. D. 1631. Hudson's Bay and Greenland by Capt. James.

An engraved map in Capt. Thomas James's *Strange and Dangerous Voyage*, 1633, inscribed "The platt of sayling for the discoverye of a Passage into the South Sea, 1631, 1632." Kohl calls it the earliest map of Hudson Bay giving the entire shore from observation. His latitudes are nearly correct; he omits longitudes. There is a facsimile of part of it in the *Nar. and Crit. Hist. of America*, iii. 96.

125. A. D. 1633. Northern parts by Fox.

An engraved map in Luke Fox's *Northweste Faxe*, London, 1633. It shows the east coast of North America from the Hudson River, including Hudson's and Baffin's Bays, to Greenland, and the west coast above Cape Mendocino to a point north of the straits which separated what was then supposed to be the Island of California at its northern end from the main.

— A. D. 1636, etc.

Maps of Baffin's Bay by Luke Fox (1636), Hexham's Mercator-Hondius (1636), Moll (1706), Barrington (1818), and modern charts are given in Markham's *Voyage of William Baffin*, published by the Hakluyt Society, 1881. The Fox map is reproduced in the *Nar. and Crit. Hist. of America*, iii. 98.

— A. D. 1644-63.

An engraved map of Iceland by Du Val in La Peyrère's *Relation de l'Islande*, Paris, 1663.

— A. D. 1646.

Robert Dudley's map of the St. Lawrence and adjacent parts, continued in his *Arcano del Mare* (Florence, 1647), p. 52; and sketched in the *Nar. and Crit. Hist. of America*, iv. 388. It is called in Dudley: "D'America Carta prima."

— A. D. 1656.

Samson's *Le Canada* includes the region about Hudson's Bay.

— A. D. 1660.

The *Tabula Novae Francie* of Du Creux or Creuxius, of which a portion is given in facsimile in the *Nar. and Crit. Hist. of America*, iv. 389.

— A. D. 1661.

North America in the *Zee-Atlas* of Van Loon.

— A. D. 1662.

"A chart of Hudson's Straights and Bay, of Davis's Straights and Baffin's Bay, as published in the year 1662," is given in T. S. Drage's *Account of a Voyage for the Discovery of a Northwest passage*, London, 1749, vol. ii.

126. A. D. 1669. Greenland by Goos.

An engraved map in Pietro de la Goos's *Atlas de la marine*, Amsterdam, 1669. He makes Frobisher's Straits cut off the southern end of Greenland, and gives many names, unknown in earlier maps, to the shore of Greenland, opposite Iceland; while Dutch names on the western coast would indicate explorations by Hollanders in that region.

127. A. D. 1685. Hudson's Bay by Jaillot.

It shows the French and English posts; and Kohl says the information is drawn almost entirely from Canadian sources.

Bleau's atlas of 1685 gives maps showing the northern parts.

— A. D. 1687.

Morden's maps in Blome's *Present state of His Majesty's Isles and Territories in America*.

— A. D. 1716 (?)

Delisle's *Carte du Canada* shows also the polar regions. It is also in the atlas published by Covens and Mortier at Amsterdam.

— A. D. 1720.

C. G. Zorgdragers. *Groenlandsche Visschery*, Amsterdam, 1720, had maps of the Polar regions, Greenland and Iceland, which are repeated in the Copenhagen edition of 1727. Frobenius's Straits are represented as cutting off the southern part of Greenland.

— A. D. 1728.

The *Atlas maritimus et Commercialis*, London, 1728, has a map of the St. Lawrence Gulf, and the Northeastern coasts.

128. A. D. circa 1730. Between Lake Superior and Hudson's Bay.

A MS. map by De la Verandiere preserved in the Dépôt de la Marine in Paris. "Donnée par Monsieur de la Galissonnière, 1750." It shows the country between Lake Superior and Hudson Bay, with its waters and portages, and forts and trading-posts.

129. A. D. 1730. Country Northwest of Lake Superior.

An Indian map, made by Ochagach, preserved in the Dépôt de la Marine, showing water-ways and portages. Kohl supposes it to have been carried to Europe by De la Verandiere, who used it in compiling map no. 128.

130. A. D. 1740. Hudson Bay Country.

Kohl calls this map a sketch of the territory explored by De la Verandiere, and says the original in the Dépôt de la Marine at Paris is called, "Carte des Nouvelles découvertes dans l'Ouest du Canada et des nations qui y habitent. Dressée, dit-on, sur les Mémoires de Monsieur de la Verandiere, mais fort imparfaite à ce qu'il m'a dit. Donnée au Dépôt de la Marine par Monsieur de la Galissonnière en 1750."

— A. D. 1741.

An engraved map of Greenland in Hans Egede's *Grønland*, Copenhagen, 1741; repeated in the German edition, Copenhagen, 1742; and called "Grønlandia Antiqua;" also in the *Beschreibung von Grønland*, translated by Krinitz, Berlin, 1763. Cf. the map by Paul Egede in his *Efterretninger om Grønland*, Copenhagen, 1789.

— A. D. 1742.

The northeastern coasts in the *English Pilot* of 1742 and later dates.

131. A. D. 1746. Northwest parts of Hudson Bay.

An engraved map in *The Probability of a Northwest passage*, by Theodore Swaine Drage, clerk of the "California" (one of the ships), London, 1768, purporting to record discoveries of Capt. Smith and Capt. Moor in 1746-47. Drage accompanied Smith and Moor on this voyage.

There is a chart of Hudson Bay and straits according to the discoveries between 1610 and 1743 in Drage's *Account of a Voyage for the Discovery of a Northwest passage*, London, 1748, vol. i., and in vol. ii. the same map as that used by Kohl.

132. A. D. 1747. Wager's Bay by Ellis.

An inlet in the northwest part of Hudson's Bay, mapped by Ellis, who accompanied Smith and Moor. It was named on Middleton's voyage.

— A. D. 1746-47.

A map of Hudson's Bay and adjacent parts in the German edition of Henry Ellis's *Reise nach Hudson's meerbusen*, Göttingen, 1750. This map is not in the Harvard College copies of the English and French editions.

133. A. D. 1748. Hudson's Bay by Ellis.

An engraved map in Henry Ellis's *Voyage to Hudson's Bay*, London, 1748, an account of the expedition of Francis Smith and Wm. Moor. The map was re-engraved in the German edition, Göttingen, 1750; and in the French edition, Paris, 1749. It shows the region from California to Greenland, and north of Lake Erie. The expedition was fitted out by London merchants, and after Parliament in 1743 had offered £20,000 for the discovery of a northwest passage. Kohl remarks that the discoveries of Hudson, Baffin, Fox, and James are not well delineated by Ellis.

134. A. D. 1763. Hudson Bay by Bellin.

Without comment by Kohl.

135. A. D. 1774. Hudson's and Baffin's Bays by Samuel Dun.

An engraved map, showing all the inlets of Hudson's Bay closed up at their interior extremities, indicating the end of the belief in a westerly passage being discovered through any of them. Baffin's Bay is represented as a large oval, among some of whose western passages (it is stated on the map) a passage may yet be possible to the Pacific. "Christian Sea" (King Christian's Sea) discovered by Munk in 1629, is put in the northerly part of Baffin's instead of Hudson's Bay.

— A. D. 1774.

Map of the north Polar regions in the *The Journal of the Voyage by Phipps and Lutwidge*, London, 1774.

136. A. D. 1765. Greenland by Cranz.

An engraved map in David Cranz's *Historie von Grønland*, 1766, and second edition, 1770; repeated in the English translation, London, 1767.

— A. D. 1783.

Map of the Arctic regions in J. R. Forster's *Voyages and Discoveries made in the North*.

137. A. D. 1785. Hudson's Bay Country by Pond.

A MS. map in the archives of the Hudson's Bay company in London, inscribed: "Copy of a map presented to the Congress by Peter Pond, a native of Milford in the State of Connecticut. This extraordinary man has resided seventeen years in those countries, and from his own discoveries as well as from the reports of the Indians, he assures himself of having at last discovered a passage to the North Sea. He is gone again to ascertain some important

observations. New York, 1st March, 1785, copied by St. John de Crevecoeur for his Grace of La Rochefoucault." Pond's various sojourns are indicated,—the most southern on St. Peter's (Mississippi) River, 1774; the most northern near Lake Athabaska, 1782-83. He puts down the great Northern Sea too far south by ten degrees.

138. A. D. 1789 and 1793. Discoveries of Alexander Mackenzie.

Mackenzie started from Fort Chipewyan on the Lake of the Hills, in June, 1789, and followed the river now known by his name to near its junction with the Northern Sea. In 1793 he followed the Unjijah or Peace River to the Rocky Mountains, thence to the Pacific. Mackenzie seems to have used Arrowsmith's map and Vancouver's surveys, in this map, which accompanies the books which he published about his explorations.

139. A. D. 1790. Hudson's Bay Country by Turner.

A MS. map in the archives of the Hudson Bay company in London, inscribed: "Chart of lakes and rivers in North America by Philipp Turner." Turner was the surveyor of the company and made his principal exploration in 1790-92, in company with Peter Fiedler, his successor as surveyor; and of this exploration Turner wrote an account preserved in the company's archives, of which this map was an illustration. Kohl calls it the oldest of the tolerably correct surveys which we have between the Saskatchewan River and Slave Lake. The rivers whose course is put down from Indian reports are marked by two crosses.

140. A. D. 1799. Greenland and Baffin's Bay by Laurie and Whittle.

An engraved chart published in London. It shows the notions prevailing before Ross's explorations.

— A. D. 1811.

A map of the Arctic regions in E. A. W. von Zimmermann's *Die Erde und ihre Bewohner*, Leipzig, 1811.

— A. D. 1818.

A general map of the Arctic regions in Barrington's *Possibility of approaching the North Pole*, London, 1818.

— A. D. 1818.

Map of the route of the ship "Alexander" in Baffin's Bay, by W. E. Parry, in a *Journal of a Voyage of Discovery to the Arctic regions*, 1818, published at London [1819].

— A. D. 1818.

A facsimile of map of the Arctic regions in 1818, with discoveries since that date inserted in red, given in Hall's *Second Arctic Expedition*, Washington, 1879.

— A. D. 1818-23.

Map of the discoveries by Ross, Parry, and Franklin, in Franklin's *Journey to the Shores of the Polar Sea*, London, 1823.

— A. D. 1819-20.

Map of Arctic regions showing route of Parry's ships, in his *Journal of a Voyage for the Discovery of a Northwest passage*, London, 1821.

— A. D. 1819-54.

Chart of discoveries in the Arctic Seas in Belcher's *Last of the Arctic Voyages*, London, 1855.

— A. D. 1820.

Arctic regions by Wm. Scoresby, jr., including Ross's explorations, in *An Account of the Arctic Regions*, by W. Scoresby, jr., London, 1820.

141. A. D. 1820. Hudson's Bay Countries by Harmon.

It shows the country from Hudson's Bay and Lake Superior on the east to the Pacific on the west. Harmon was an officer of the Hudson's Bay Company who published this map in a journal of his explorations.

— A. D. 1821-23.

Map of Parry's second route, in his *Journal of a Voyage for the Discovery of a Northwest Passage*, London, 1824, with detailed maps in the same volume.

— A. D. 1822.

Map of Greenland by Scoresby in a *Journal of a Voyage to the Northern Whale Fisheries*, by W. Scoresby, jr., Edinburgh, 1823, with a special chart of surveys on the east coast.

142. A. D. 1823. Arctic Regions after Parry.

Parts north of Hudson's Bay. Kohl does not comment on it.

143. A. D. 1824. East Greenland by Scoresby.

Without comment by Kohl.

— A. D. 1824-25.

Map of Prince Regent's inlet drawn by Parry and Head, in Parry's *Third Voyage*.

144. A. D. 1833. Proposed Route of Capt. Back.

See Royal Geographical Society's *Journal*, iii. 64.

145. A. D. 1833-34. Back's River.

See Royal Geographical Society's *Journal*, vol. vi. (1836). It shows his exploration, beginning at the Great Slave Lake, of the Great Fish River, never before followed, when he started to relieve Capt. Ross, then supposed to be confined in the ice, northwest of Hudson's Bay.

146. A. D. 1834. Back River.

Another map of the same region, without comment by Kohl.

147. A. D. 1836-37. Hudson's Strait.

It shows the track of the "Terror," following a map in the Royal Geographical Society's *Journal*, vol. vii., accompanying Capt. Back's report on the north-eastern shore of Southampton Island,—the closest observation since Baffin's voyage in 1615.

148. A. D. 1840. Peel River by Isbister.

In Royal Geographical Society's *Journal*, xv. 333, accompanying an account by A. K. Isbister, of his explorations not only of Peel River, but also of Red and other branches of the Mackenzie River, flowing to the Arctic Sea.

— A. D. 1845.

The Arctic regions as known in 1845, — a copy of the map supplied to the Franklin expedition, in Hall's *Second Arctic Expedition*, Washington, 1879.

149. A. D. 1851. Arctic Coast explored by Dr. Rea.

An engraved map extracted from the Royal Geog. Society's *Journal* (1852), xxii. 73, where it is accompanied by two reports of explorations in search of Sir John Franklin.

— A. D. 1850-51.

A map of Wellington Channel and Grinnell land by Lt. De Haven and Capt. Penny, in Peter Force's pamphlet on *Grinnell land*, 1852.

150. A. D. 1851-52. Discoveries of Kennedy and Bellet.

This shows the exploration of travelling parties from the ship "Prince Albert," wintered at North Somerset, on Prince Regent inlet, in search of Sir John Franklin's party. It is copied from one in the Royal Geog. Society's *Journal*, xxiii. (1853.)

151. A. D. 1852. Smith Sound by Inglefield.

Copied from a map in the Royal Geog. Society's *Journal*, vol. xxiii., accompanying a report of Capt. E. A. Inglefield, who was the first to examine the sound forming the northern parts of Baffin's Bay, Baffin himself having only seen its beginning in 1615.

— A. D. 1861, etc.

North polar chart in Sir John Richardson's *Polar Regions* (1861); maps of the "American Arctic Sea," "Smith Sound" and "North Polar Regions" in C. R. Markham's *Threshold of the Unknown Region*, 1873.

. No attempt is made to enumerate the multitude of recent maps of the Arctic regions.

V.

CANADA.

1580
1503-04
1505

*. The best enumeration of maps covering Canada which has yet been printed is in Harrisse's *Cabots and his Notes sur la Nouvelle France*. Cf. maps under sections II. and III., ante.

+ — A. D. 1508.

Respecting the apocryphal map of Jehan Denys, see *Nar. and Crit. Hist. of America*, iv. p. 36.

— A. D. 1521.

Respecting the extremely doubtful map attributed to Lazaro Luis, see *Nar. and Crit. Hist. of America*, iv. p. 37.

— A. D. 1532.

The map in Ziegler's *Schondia*, etc., Strasburg, 1532 and 1536, shows vaguely the Bacallaos coast. It is given in facsimile in the *Nar. and Crit. Hist. of America*, vol. ii.

— A. D. 1534.

A map by Gaspar Viegas of Newfoundland and the Gulf of St. Lawrence is depicted in Kohl's *Discovery of Maine*, pl. xviii.

— A. D. 1542.

Maps in Rotz's *Idrography*.

— A. D. 1545.

The charts of Jean Allefonsee of the region of the Gulf of St. Lawrence, which are sketched in the *Narrative and Crit. Hist. of America*, iv. 74 *et seq.*; some of which are also given in Weise's *Discoveries of America*, 355, and in Murphy's *Verrazzano*.

— A. D. 1545.

Carte des Côtes Nord-est de l'Amérique, in the Musée Correr at Venice, noted by Harrisse, *Notes sur la Nouvelle France*, no. 188.

152. A. D. 1546. **Canada and Labrador by Juan Freire.**

It shows the coast from 34° N. lat. to 72° N. lat., and develops the Gulf and River St. Lawrence. It is called: *Carte du Canada, Labrador, e. l., tirée d'une Portulan Portugais de l'année 1546 dans la possession de Monsieur le Vicomte [Sautarem] de Paris*. Kohl considers that Spanish, Portuguese, and French authorities were used. He assigns the regions of the Cortereals — *esta he a tera dos Cort-Reis* — to the territory between what seems to be Penobscot Bay and the St. Lawrence. The names along the latter river are French, corrupted by Portuguese; and so on the eastern coast of Newfoundland, whose western coast is not drawn. There are various imaginary islands in the Atlantic. It is sketched in the *Nar. and Crit. Hist. of America*, iv. p. 86.

153. A. D. 1546. **Newfoundland by Freire.**

Contained in a Portuguese portolano, of which Libri published, says Kohl, in London a facsimile.

It is inscribed: *Joham Freire a fez era de 546*. It shows the eastern coasts of Labrador and Newfoundland from Hudson's Straits south, the southwestern coast of Newfoundland, and the opposite coast of Cape Breton. (Libri sale, Mar. 20, 1859, £91.)

154. A. D. 1547. **East Coast of North America by Nicolas Vallard, of Dieppe.**

The coast is given from the end of Florida to the Labrador shore, developing the Gulf and River St. Lawrence. It is part of a MS. map in the Sir Thomas Phillipps collection. The map is endorsed *Terre de Bacalos*. The source of the delineation south of Cape Breton is Spanish, and it shows no trace of Verrazano. Kohl thinks that, for the region north of Cape Breton, the map is based on the maps of Alfonse and Cartier. He remarks on the half Portuguese name of the St. Lawrence, — *Rio do Canada*. The *G. lorens* of the map is not the great gulf, but a small bay opposite the north shore of Anticosti. The eastern shore of Newfoundland has a mixture of French and Portuguese names. On Labrador they are mostly Portuguese. The name of Vallard may signify ownership rather than mark the maker. Cf. *Nar. and Crit. Hist. America*, iv. p. 86, and for a sketch, p. 87.

155. A. D. 1547.

A less perfect copy of the preceding.

156. A. D. 1548. **Canada.**

The coast from Greenland (apparently) to Nova Scotia, with the Gulf and River St. Lawrence developed. Part of a mappemonde which was communicated to Kohl by Jomard, and thought, as Kohl says, by the latter to have been made by order of Henri II. A figure of Robeval among his soldiers is drawn on the map. The northern parts of the Atlantic are called *Mer de France*; the more southerly, *Mer d'Espagne*. Newfoundland is a group of islands. St. Laurens is a small bay, as in no. 154. The St. Lawrence river is not named, but the Saguenay (R. du Sagney) is. Since Kohl's day, R. H. Major has deciphered an inscription which assigns its authorship to Pierre Desceliers in 1546. Jomard gives it in facsimile; it is sketched in the *Nar. and Crit. Hist. of America*, iv. p. 85.

— A. D. 1548.

Gastaldi's map, "Della terra nova Bacalaos," in the Italian Ptolemy of 1548.

157. A. D. 155-? **Canada.**

This represents North America as an island, of which the St. Lawrence is a central basin. Somewhere on the coast of South Carolina a strait connects the Atlantic with the Western Sea, which also washes all the northern confines of the land. Newfoundland is divided by channels, as in the Ramusio map of 1556, and the names on the Eastern shore are Portuguese with French transformations. The names on the lower portion of the Atlantic coast are of Spanish origin. The Atlantic has the usual sprinkling of imaginary islands. It is sketched in the *Nar. and Crit. Hist. America*, iv. p. 89.

158. A. D. 155-?

The same, less perfect.

159. A. D. 1556. **La Nuova Francia in 'mu-
sio.**

A copy from the engraved map in Ramusio. Kohl suspects that it may have been drawn after Jehan Deny's lost map, and that Ramusio did not have access to Cartier's charts. It is reproduced in the *Nar. and Crit. Hist. America*, iv. p. 91, and in Weise's *Discoveries of America*, p. 356.

159a. A. D. 1556.

Another copy of the same. The two maps of Gastaldi in Ramusio, "Terra de Labrador et Nova Francia" and "Terra de Hochelaga nella nova Francia," are supposed to have been made in 1553. Cf. HARRISSE, *Notes*, nos. 292, 293.

160. A. D. 1556 (?) **Newfoundland, etc.**

It also shows Labrador and the coast of Maine, and is taken from a portolano in the British Museum, and in its catalogue it is described as "on vellum in the Spanish language, and executed in the sixteenth century." The coast stretches from 45° to 64° north latitude. It resembles, so far as it goes, no. 152, but it has no indication of the Gulf or River St. Lawrence. It is sketched in the *Nar. and Crit. Hist. America*, iv. p. 87.

161. A. D. 1558. **Canada and adjacent parts by
Diego Homem.**

It shows the eastern coast of North America from 28° N. Lat. to 70°. The Bay of Fundy is developed, and the basin of the St. Lawrence is converted into a northern ocean. The original is in a MS. atlas by Homem in the British Museum. The names of the St. Lawrence region are French, of the coast south of the gulf Spanish, and north of it Portuguese. Cf. sketches in Kohl's *Disc. of Maine*, p. 377, and *Nar. and Crit. Hist. America*, iv. p. 92.

162. A. D. 1558.

Another copy of no. 161.

163. A. D. 1562 and 1574. **East Coast of North
America.**

This gives the coast from 34° N. Lat. to 60°. Newfoundland is a cluster of islands. The St. Lawrence is a network of small streams. The original is an engraved map in the Ptolemies of 1562 and 1574, called "Tierra Nueva." It is based on the Ramusio map of 1556, and there are sketches of it in Kohl's *Disc. of Maine*, p. 233; Leleu's *Géog. du Moyen-Age*, p. 170; and *Nar. and Crit. Hist. America*, iv. p. 92.

— A. D. 1575.

A Portuguese map of about 1575 in the British Museum, showing the coast from Cape Breton to Labrador.

164. A. D. 1597. **Nova Francia et Canada, by
Wytfliet.**

It shows the Gulf and River St. Lawrence with Labrador. The original is an engraved map in Wytfliet's Continuation of Ptolemy, and is reproduced in facsimile in the *Nar. and Crit. Hist. America*, iv. p. 100. Cf. also Wytfliet's maps, showing Labrador and Greenland, and Newfoundland and the adjacent parts. See *ante*, no. 113.

The maps were repeated in the Douay edition of 1605, etc.

165. A. D. 1609. **New France by Lescarbot.**

It shows the coast from 40° N. Lat. to 54°, with the course of the St. Lawrence. It follows an engraved map in Lescarbot's *Nouvelle France*. The entire map is reproduced in Faillon's *Colonie Française*, i. p. 85, in Tross's reprint of Lescarbot, and in the *Popham Memorial*. Parts of it are given in the *Nar. and Crit. Hist. America*, iv. p. 152, 304, 379.

See also the 1612 edition of Lescarbot.

— A. D. 1612.

Champlain's map, which is reproduced in the Boston and Quebec reprints of Champlain, and in the *Nar. and Crit. Hist. America*, iv. pp. 380, 381.

— A. D. 1613.

Champlain's map, which is reproduced in the Boston and Quebec editions of his works; and in part in the *Nar. and Crit. Hist. America*, iv. p. 383. The edition of 1613 had various smaller local maps.

166. A. D. 1613. **Canada and Norumbega by
J. Oliva.**

Showing the coast from 42° N. Lat. to 68°, with the course of the St. Lawrence. The original is in a MS. portolano in the British Museum, marked: *Joannes Oliva fecit in civitate Marsilie, anno 1613*. Newfoundland, as Kohl remarks, is unusually well drawn; but the rest of the map is much behind the best knowledge of the time. See *ante*, no. 90.

167. A. D. 1625. **New England and New
France, from Purchas.**

The main sources of this map appear to be Lescarbot's map of New France and John Smith's map of New England. The original appeared in Purchas's *Pilgrims*, following one in Sir William Alexander's *Encouragement to Colonies* (1624). It is given in part in the *Nar. and Crit. Hist. America*, iii. ch. 9.

168. A. D. 1626. **Newfoundland by Mason.**

The original is an engraved map in *The Golden Fleece*, by Orpheus, Junior, London, 1626. The map is inscribed: "Newfoundland described by Capitaine John Mason, an industrious Gent., who spent seven yeares in the Country." Cf. *Nar. and Crit. Hist. America*, iv. p. 379.

169. A. D. 1630. **New France by De Laet.**

It shows the coast from Cape Cod to Labrador, and as far inland as Lake Champlain. The original is an engraved map in De Laet's *Nieuwe Wereldt*. The map is apparently based on the maps of Purchas, Lescarbot, and Champlain. It was repeated in the Latin (1633) and the French (1640) editions. It is sketched in the *Nar. and Crit. Hist. America*, iv. p. 384, and in Cassell's *United States*, i. 240.

170. A. D. 1632. **New France by Champlain.**

This follows the engraved map in the edition of 1632. It is reproduced in the Quebec and Boston editions of Champlain, in O'Callaghan's *Doc. Hist. of N. Y.*, vol. iii., and in the *Nar. and Crit. Hist. America*, iv. pp. 386, 387.

171. A. D. 1632.

An unfinished sketch of the same map.

172. A. D. circa 1649. **Canada.**

After a rough draft preserved in the Dépôt de la Marine at Paris. Its chief peculiarity is in making Lakes Superior and Huron flow into the St. Lawrence through the Ottawa, with no passage for their waters through Erie and Ontario. Lake Michigan is not indicated. It is sketched in the *Nar. and Crit. Hist. America*, iv. p. 202. Is this the map noted by Harrisse, *Notes*, etc., no. 197, which he puts sub anno, 1665?

— A. D. 1641 (?).

Rivière St. Laurent (Montreal to Tadoussac), noted in Harrisse, *Notes*, etc., no. 191.

— A. D. 1647.

The "Canida" map of Dudley's *Arcano del Mare*, of which a sketch is given in the *Nar. and Crit. Hist. America*, iv. p. 388.

— A. D. 1656.

Sanson's *Le Canada, ou Nouvelle France*. It is sketched in the *Nar. and Crit. Hist. America*, iv. p. 391. Cf. Harrisse, *Notes*, etc., no. 327.

173. A. D. 1660. **New France.**

Inscribed *Tabula Nove Francia anno 1660*, and the language of the map is Latin. It corresponds in extent nearly to the Champlain map of 1632. Kohl speaks of it as a map which he found in the great Paris library; but it is really the engraved Du Creux or Creuxius map, which is given (in part) in facsimile in the *Nar. and Crit. Hist. America*, iv. p. 389. Cf. Harrisse, *Notes*, etc., no. 329.

— A. D. 1662.

Map in Blaeu's *Atlas*, of which a sketch is given in *Nar. and Crit. Hist. America*, iv. p. 391. It was repeated by Blaeu in 1685.

— A. D. 1663.

A map of the course of the St. Lawrence, of which a sketch is given in the *Nar. and Crit. Hist. of America*, iv. p. 148.

A map in the *Jesuit Relation* of 1662-63, of which a portion is given in facsimile in the *Nar. and Crit. Hist. of America*, iv. p. 311.

174. A. D. 1666. **Lakes Champlain and Ontario.**

It is called: "Carte des grands lacs Ontario et [Champlain] et des pays traversés par M^{rs} de Tracy et Courcelles pour aller attaquer les Agniesz, 1666." The original is in the Dépôt de la Marine at Paris. It gives the Hudson from Orange [Albany] upwards. It is sketched in the *Nar. and Crit. Hist. America*, iv. p. 312. Cf. Faillon, *La Colonie Française*, iii. 125, and Harrisse, *Notes*, etc., no. 332.

175. A. D. 1666. **Lakes Ontario and Champlain.**

Copied from an engraved map in the *Jesuit Relation* of 1664-65. See *Nar. and Crit. Hist. America*, iv. pp. 311, 312, 313.

— A. D. 1666.

Le Canada ou la Nouvelle France: par Nicolas Sanson, Paris, 1666.

The same, by Frederic de Witt.

Harrisse (*Notes*, etc., nos. 334, 335) says he borrows these titles from P. Leiong's *Bibliothèque Historique*, i. no. 1452, 1453.

— A. D. 1668.

Carte du pays des cinq Nations Iroquoises Kenté in Faillon, La Colonie Française, iii. 196.

176. A. D. 1670. **Lake Superior.**

Copied from the map which appeared in the *Jesuit Relation* of 1670-71. Facsimiles of this map are given in Bancroft's *United States*, orig. ed., iii. p. 152; Whitney's *Geol. Rept. of Lake Superior*, Monette's *Mississippi*, vol. i., and *Nar. and Crit. Hist. America*, iv. p. 313. Cf. Harrisse, *Notes*, etc., no. 340.

— A. D. 1670.

Dollier and Gallinée's map of Lakes Ontario and Huron, sketched in the *Nar. and Crit. Hist. America*, iv. p. 203. Cf. Harrisse, *Notes*, no. 200.

An undated MS. map, also sketched in *Ibidem*, iv. p. 206, shows the upper lakes and the upper Mississippi.

— A. D. 1670.

The *Novi Belgii Tabula* in Ogilby's *America*, p. 169; reproduced in the *Nar. and Crit. Hist. America*, iv. p. 392.

— A. D. 1671.

Lac Tracy ou Supérieur, a MS. in the library of the Dépôt de la Marine, at Paris, noted in Harrisse, *Notes*, etc., no. 201.

— A. D. 1673.

Carte de la nouvelle découverte que les pères Jésuites ont fait en l'année 1672, et continuée par le P. Jacques Marquette, — a MS. map belonging to the National Library in Paris, which Harrisse says (*Notes*, etc., 202) cannot now be found.

— A. D. 1673.

Carte des missions des PP. Jésuites sur le lac des Illinois, in the *Jesuit Relation*, 1673-79, as published in New York in 1860.

177. A. D. 1675. **The Great Lakes and the Upper Mississippi by Joliet.**

The original is in the Dépôt de la Marine at Paris, and has on it a letter addressed to Frontenac. See Harrisse, *Notes*, etc., no. 203-204.

In the *Nar. and Crit. Hist. America*, iv. (p. 208), is Joliet's earliest map (1673-74), with indications of places where it can be found in facsimile; (pp. 212, 213) is what is known as Joliet's larger map of 1674; and (p. 214) his smaller map. In the same book (p. 215) is another early map of the basin of the Great Lakes from the Parkman Collection, and (p. 218) a sketch of Joliet's "Carte Générale." Cf. Harrisse, *Notes*, etc., nos. 214, 342, 343. As to the genuine and spurious map of Marquette see *Ibidem* (p. 220), and sketch. This last map is also in Andreas's *Chicago*, i. 47.

— A. D. 1676.

Poisaerte van Terra nova, Nova Francia, Nieuw Engeland en de Groote Rivier van Canada in Roggeveen's *Tourbe Ardente*, and in the English edition, *The Burning Fen*.

178. A. D. 1677. Canada by Du Val.

This map is inscribed as follows: "Le Canada, fait par le Sr. de Champlain ou sont la Nouvelle France, Nou Anglet, Nou Holl, Nou Suede, Virginie, et autres terres nouvellement découvertes suivant les mémoires de T. du Val, Géogr. du Roy, Paris, 1677." Cf. *Nar. and Crit. Hist. of America*, iv. p. 388. HARRISSE, *Notes*, etc. (no. 331), gives an edition of 1664, as well as that of 1677 (no. 348).

— A. D. 1679.

Map of Joliet's route from Tadoussac north, in the Archives of the Marine in Paris. HARRISSE, *Notes*, etc., no. 207.

Various sectional maps, preserved in the library of the Marine at Paris, are noted in HARRISSE's *Notes*, etc., nos. 209-213.

— A. D. 1681.

A map (27° to 44° N. Lat.) in the library of the Marine at Paris, made by Franquelin. Cf. HARRISSE, *Notes*, etc., no. 215; and others of Franquelin, in nos. 216, 217, 218.

179. A. D. circa 1683. The Great Lakes and the Upper Mississippi by Raffelx.

It is called: "Parties les plus occidentales du Canada." It is sketched in the *Nar. and Crit. Hist. America*, iv. 233. HARRISSE (*Notes*, no. 238) puts it under the year 1683.

— A. D. 1683.

Hennepin's *Carte de la Nouvelle France* in his *Description de la Louisiane*. There are facsimiles in Shea's translation of that book; in Winchell's *Geol. Survey of Minnesota*, pl. 6; and it is given in part in the *Nar. and Crit. Hist. America*, iv. p. 249. This may be compared with Hennepin's *Carte d'un très grand pays* in the editions of his *Nouvelle Découverte* of 1697, 1698, 1704, 1711, etc., and of which a facsimile (in part) is given in the *Nar. and Crit. Hist. America*, iv. 251. Cf. also Breese's *Early Hist. of Illinois*, p. 98.

Hennepin's *Carte d'un très grand pays* (1697, 1704, etc., and with English names in the English edition) is also in facsimile in the *Nar. and Crit. Hist. America*, iv. 252-253. Cf. HARRISSE, *Notes*, etc., no. 219, 352.

— A. D. 1684-1686.

Franquelin's great map of 1684, see *ante*, under no. 100, and HARRISSE's *Notes*, nos. 222, 223. The map (1685) which Franquelin made of the St. Lawrence, after material furnished by Joliet. HARRISSE, *Notes*, no. 229. Franquelin's maps (1686), noted in HARRISSE, nos. 231, 232, — of one of which there is a copy in the Parliamentary Library (Canada). See its *Catalogue*, p. 1616.

— A. D. 1685.

Partie de la Nouvelle France par Hubert Jaillot. Cf. HARRISSE, *Notes*, etc., no. 354.

— A. D. 1687.

Pierre Allmand's discoveries between Quebec and Hudson's Bay, as given in the map preserved in the Archives of the Marine. HARRISSE, *Notes*, no. 233.

180. A. D. 1688. Ontario and Erie by Raffelx.

It is inscribed: "Le lac Ontario avec les lieux circonvoisins et particulièrement Les Cinq Nations Iroquoises, 1688." The original is in the National Library at Paris. It is sketched in the *Nar. and Crit. Hist. America*, iv. p. 234. Cf. HARRISSE, *Notes*, no. 237.

— A. D. 1688.

Franquelin's map of the Upper Lakes and the Upper Mississippi as given in Neill's *Minnesota* (1882); *Nar. and Crit. Hist. America*, iv. pp. 230, 231; and in Winchell's *Geol. Survey of Minnesota*, Final Report, i. pl. 2. Cf. HARRISSE, *Notes*, nos. 234, 240.

Coronelli and Tillemont's printed maps (1688) of *Partie occidentale du Canada* (sketched in *Nar. and Crit. Hist. America*, iv. p. 232), and *Partie orientale*. Cf. HARRISSE, *Notes*, etc., nos. 359, 361.

— A. D. 1691.

Carte generale de la Nouvelle France, etc. Cf. HARRISSE, *Notes*, etc., no. 364; also no. 367. *Nuova Francia e Luigiana*, in *Il Genio vagante*, Parma, 1691.

— A. D. 1692.

Franquelin's *Nouvelle France*. Cf. HARRISSE, *Notes*, no. 248.

— A. D. 1696.

Le Canada by H. Jaillot, showing the routes between the lakes and Hudson's Bay.

Le Cordier's Carte de la Baye de Canada, etc. Cf. HARRISSE, *Notes*, etc., no. 372.

— A. D. 1699.

Franquelin's *Partie de l'Amérique Septentrionale ou est compris la Nouvelle France*, preserved in the library of the Marine, and noted in HARRISSE, *Notes*, no. 259.

— A. D. 1703.

La Hontan's map of the great lakes in his *New Voyages*, London, 1703; redrawn in his *Mémoires de l'Amérique*, vol. ii.; and also in the editions of 1709 and 1713. A facsimile of the 1703 map is given in the *Nar. and Crit. Hist. of America*, iv. p. 260.

— A. D. 1709.

The *Carte générale de Canada* in the La Haye ed. (1709) of La Hontan, which was repeated in his *Mémoires*, (1741), vol. iii. It is given in sections in the *Nar. and Crit. Hist. of America*, iv. pp. 153, 258, 259. His map of the "Rivière Longue," in the *Nouveaux Voyages*, (1709), vol. i. p. 136, is reproduced in the *Nar. and Crit. Hist. America*, iv. p. 261.

VI.

EAST COAST OF NORTH AMERICA.

*. The enumeration of this section may be supplemented by those in Sections II. and III.

— A. D. 1500-1541.

The delineations of the east coast begin with La Cosa's map (1500), and may be traced through the maps of Cantino (1502), Ruysch (1508), the Nordenskiöld gores (15—?), Stobnicza (1512), the Admiral's map (1513), the Schöner globes (1515, 1520), Reisch (1515), the Tross gores (1514-19?), the map of Apian (1520), Ptolemy (1522), Maiollo (1527), Verrazano (1529), Frisius (1525), Monk Francisus (1526), Thorne (1527), the Spanish official maps (1527-1529), the map of the Sloane MS. (1530), globe of Finæus (1531), the Lenox woodcut (1534), the map of Agnese (1536), the Charles V. portulano (1539), the Nancy globe (1549?) the map of Münster in the Ptolemy of 1549, the Mercator gores of 1541, etc.

These are but typical specimens to show the constancy or variations of types among the cartographers of the time, and they have all been described on earlier pages.

A reconstruction of the Chaves map of 1536 (now lost) is attempted by De Costa in the *N. E. Hist. General Reg.* April, 1885.

181. A. D. 1542. From Cape Breton to Florida, by Rotz.

From Rotz's *Boke of Idrography*, preserved in the British Museum. The Spanish names on the coast are corrupted. Across the Gulf of Maine is the legend, "The new fonde Londe quahz men goeth a fisching." Kohl thinks it perhaps the earliest map in which buffaloes are depicted in the inner parts of the Continent. Cf. *Catalogue of MSS. in the British Museum* (1844), i. p. 23. The present is no. 17 of the atlas. Malte Brun, *Hist. de la Géog.* ed. by Huot, i. 631; *Nar. and Crit. Hist. America*, iv. 82, and for outlines of parts of Rotz's maps, p. 83. See *ante* under no. 55.

— A. D. 1542.

The Ulpius globe. See *ante* under no. 55, and in *Nar. and Crit. Hist. America*, iv. p. 42.

— A. D. 1543.

The map of Baptista Agnese. See under no. 56, *ante*.

— A. D. 1544.

The Cabot mappemonde. See under no. 56, *ante*. The eastern coast is given in the *Nar. and Crit. Hist. America*, iii. 22.

The sketch maps of the northeastern coasts, by Allefonse, are delineated in the *Nar. and Crit. Hist. America*, iv. pp. 74-77.

— A. D. 1545.

Münster's map, which was re-engraved in the Ptolemy of 1552. It is sketched in the *Nar. and Crit. Hist. America*, iv. 84.

— A. D. 1545.

The map in Medina's *Arte de navegar*, which is reproduced in the *Narrative and Crit. Hist. America*, vol. viii.

— A. D. 1546.

The so-called Henri II. map, of which the east coast is sketched in the *Nar. and Crit. Hist. America*, iii. 195, and the map of Johannes Freire, of which sketches are given in *Ibid.* iv. pp. 85, 86. Cf. in this history, iv. pp. 81-102, a section on "The Cartography of the northeast coast of North America, 1535-1600."

— A. D. 1547.

The Nicolas Vallard map, of which a portion is given in the *Nar. and Crit. Hist. America*, iv. 87.

— A. D. 1548.

The maps in the Ptolemy of 1548. See *ante*, under no. 58. The "Carta marina" is given in facsimile in the *Nar. and Crit. Hist. of America*, vol. viii.

— A. D. 1550.

Gastaldi's map in Ramusio, put about this date. There are facsimiles in the *Nar. and Crit. Hist. America*, iv. 91, and in Weise's *Discoveries of America*, p. 356.

See the maps belonging to the Riccardi palace, referred to *ante*, no. 93. The *Studi biog. e bibliog. soc. Ital. geog.* ii. 451, 452, mentions Portuguese atlases of the middle of this century preserved in the Biblioteca Riccardiana, and in the Royal Library at Florence, which contain charts of the east coast of North America.

— A. D. 1550.

A MS. map which belonged to Jomard, a sketch of which is given in the *Nar. and Crit. Hist. of America*, iv. 88.

182. A. D. 155-(?) From the Mississippi (?) River to 45° N.

A river "Rio de Flores" is apparently the Mississippi. The country is called "Terra del licencia dos Aulloh,"—thought by Kohl to be a corruption of Ayllon's name, of whose explorations the map is probably a record. It is from a MS. atlas (1556-1566) in the British Museum. A man, like a Chinaman, and an elephant are depicted in the interior.

183. A. D. 155-(?). From Nova Scotia to Texas.

From a MS. atlas in the Douce collection in the Bodleian library. Texas is called "Topira." The country north of the Gulf of Mexico is called "Gali-guza." The general name of the continent is "Florida." A lion asleep is depicted in the interior.

— A. D. 155-(?)

A map of Martines in an atlas in the British Museum, ascribed to Martines. It is sketched in the *Nar. and Crit. Hist. America*, ii. p. 450. See *ante*, no. 63.

— A. D. 1554.

The Bellero map (see *ante*, no. 64), of which a facsimile is given in the *Nar. and Crit. Hist. America*, vol. viii.

Baptista Agnese's atlas of 1554 also shows the east coast in several maps.

— A. D. 1556.

The map of the two Americas in Ramusio shows the east coast of North America. It is in facsimile in the *Nar. and Crit. Hist. America*, ii. 228. Cf. *ante*, no. 66.

The map of Vopellio mentioned under no. 66, *ante*. There is a facsimile of it in the *Nar. and Crit. Hist. America*, ii. p. 436.

— A. D. 1558.

In the atlas of Diego Homem in the British Museum. There is a sketch in the *Nar. and Crit. Hist. America*, iv. 92, and in H. H. Bancroft's *North-west Coast*, i. 50. See *ante*, no. 67.

— A. D. 1561.

Ruscelli's "Tierra Nueva" in the Ptolemy of 1561. See *ante*, under no. 69, and a sketch and references in the *Nar. and Crit. Hist. America*, iv. 92.

184. A. D. 1562. From Cape Breton to Florida, by D. Gutierrez.

From an engraved map, *America sive quarte orbis partis nova et exactissima descriptio. Auctore Diego Gutierrez, Philippi regis Hispanie cosmographo. Hieron. Cock excud. 1562.* If the "Ba. de S. Maria" is our Chesapeake, the "R. Salado" (Salt river) and "R. de S. Spirito" are relics of early Spanish visits to the Potomac region. The coast further north is as confused in outline and names, as usual, for this period.

185. A. D. 1565. Florida, etc., by Lemoyne.

This extends from the South Carolina to the Alabama coast, and the original is an engraved map in the *Brevis Narratio*, describing Laudonnière's expedition, as published in 1591 by De Bry. The Spanish names on the Carolina coast indicate that Lemoyne used Spanish drafts of that coast. A trace of the sea of Verrazano is seen at the north.

The map is reproduced in Gaffarel's *Floride Française*, in Shipp's *De Soto and Florida*, and in part in the *Nar. and Crit. Hist. America*, ii. 274.

— A. D. 1566.

The map of Nicholas des Liens in the Bibliothèque Nationale at Paris. It shows the coast from Labrador to Venezuela. It is sketched in the *Nar. and Crit. Hist. America*, iv. 79.

— A. D. 1566.

Zaltieri's map. See *ante*, under no. 69. There is a facsimile in the *Nar. and Crit. Hist. America*, ii. p. 451.

— A. D. 1568.

The map of Diegus in the Royal Library at Dresden shows the east coast.

— A. D. 1569.

The great Mercator map. The east coast is shown in the sketch in the *Nar. and Crit. Hist. America*, iv. 94 (also in ii. p. 452); and in a facsimile, *Ibid.* iv. p. 373, and also in Weise's *Discoveries of America*, p. 360, and in his *Hist. of Albany*, p. 4. See *ante*, under no. 71.

— A. D. 1570.

Ortelius's map of America. A sketch of the east coast is given in the *Nar. and Crit. Hist. America*, iv. 95. Cf. *ante*, no. 72. The map was repeated in later editions, 1575, 1584; re-engraved, 1587, etc.

— A. D. 1572.

Porcacchi's map, of which the east coast is shown in the sketch given in the *Nar. and Crit. Hist. America*, iv. 96. Cf. *ante*, under no. 72. Repeated in 1576, etc.

— A. D. 1573.

A Spanish mappemonde, given by Lelewel, i. pl. 7, shows the east coast.

— A. D. 1574.

Two maps of this date in *Theatri Orbis terrarum enchiridion* (1585) of Philippus Gallæus "per Ilugonem Favolium illustratum," show the east coast.

186. A. D. 1578. From Florida to 45° N., by Martines.

From a MS. atlas (no. 15) in the British Museum. Kohl remarks on its inferiority to Ribero's map (1529), and says that the Spanish maps degenerated for a long time after Ribero. The country is called "La Florida." See sketch in *Nar. and Crit. Hist. America*, ii. 229.

187. A. D. 1578. East Coast by Martines.

A very inaccurate sketch of the coast from Labrador to the Gulf of Mexico, in which the peninsula of Florida and the gulf of St. Lawrence are only recognizable. The original belongs to a MS. atlas by Joan Martines in the British Museum. The main is called "Nova Spagna." The St. Lawrence river and the Hudson seem to unite and form a channel, making New England an island. There is a sketch of it in the *Nar. and Crit. Hist. America*, iv. 97.

188. A. D. 1578. The same.

A rough sketch.

— A. D. 1580.

The map of John Dee, in the British Museum. Cf. *ante*, no. 96.

— A. D. 1582.

Lok's map, which appeared in Hakluyt's *Divers Voyages*, and is reproduced in Winter Jones's edition of that book, and in the *Nar. and Crit. Hist. America*, iii. 40 and iv. 44, and in Weise's *Discoveries of America*, p. 7.

The map of the Mercator type in Popellinière's *Trois mondes* shows the east coast.

— A. D. 1585.

John White's map of the coast from the Chesapeake to the gulf of Mexico, preserved among the De Bry drawings in the British Museum, and first engraved for Dr. Edward Eggleston's paper in the *Century Magazine*, November, 1882. A sketch of it is given in the *Nar. and Crit. Hist. America*, iv. 45.

— A. D. 1587.

The map in Hakluyt's edition of Peter Martyr. Cf. *ante*, under no. 79.

The map (1587) in Johannes Myritius' *Opusculum Geographicum*, Ingolstadt, 1590.

189. A. D. 1590. Old Virginia by John White.

This shows Chesapeake bay and the North Carolina coast. This is the map by De Bry attached to the *Admiranda Narratio*, descriptive of the experiences of Raleigh's company in 1585. The map is inscribed, "autore Joanne With; sculptore Theodoro De Bry." Kohl believes With to be the same as Gov. White of that colony. Parts of the map are supposed to have been drawn from Ralph Lane's notes. There is a heliotype of it in the *Nar. and Crit. Hist. America*, iii. 124. Other facsimiles are given in the histories of North Carolina by Hawks and by Wheeler, and in Gay's *Popular Hist. of the United States*, i. 243.

The "Ould Virginia," in Smith's *Generall Historie* closely resembles this map, adding however the entrance to the Chesapeake at the north.

190. A. D. 1590. The same.

A rough sketch.

191. A. D. 1590. Roanoke Island and Albemarle Sound, by White.

The original of this is in the engraved series of White's drawings, published by De Bry. It is marked "The arrival of the Englishmen in Virginia" [1584]. See *post*, no. 202.

192. A. D. 1580. East Coast by F. Simon.

From Cape Breton to the Carolina coast. A sketch without annotation by Kohl.

193. A. D. 1592. East Coast from Molineaux's Globe.

From Florida to the St. Lawrence. The original globe is in the Middle Temple, London. Kohl calls it a curious mixture of Spanish and English names. About Nova Scotia there are traces of a Portuguese nomenclature. Cf. sketch in *Nar. and Crit. Hist. America*, iii. 213.

— A. D. 1592.

Hood's map, reproduced in Kunstmann's *Atlas*, and the east coast sketched in the *Nar. and Crit. Hist. America*, iii. 197, with references, p. 196.

— A. D. 1593.

The map in the *Speculum Orbis Terrarum* of Cornelius de Judeis. It is sketched in the *Nar. and Crit. Hist. America*, iv. 97.

The map of the Mercator type in Maffei's *Historiarum Indicarum libri XVI*.

— A. D. 1594.

The map (1594) of Plancius in the Amsterdam edition of Linschoten, 1596. It was re-engraved in the Latin Linschoten (Hague, 1599).

— A. D. 1596.

De Bry's map. It is sketched in the *Nar. and Crit. Hist. America*, iv. 99.

194. A. D. 1597. East Coast by Wytfliet.

From Cape Breton to South Carolina. The original is an engraved map in Wytfliet's *Descriptionis Ptolemaice Augmentum*, published in 1597. Kohl thinks it shows the earliest attempt at tracing the Alleghany Mountains. The parts of the coast above North Carolina are difficult to identify beyond a question.

Wytfliet's map of the coast of New Brunswick and Labrador is given in facsimile in the *Nar. and Crit. Hist. America*, iv. 100, and of Florida and Carolina coasts in *Ibid.* ii. 281, and his map of America, in *Ibid.* ii. p. 459.

— A. D. 1597.

The maps in the Ptolemies of this year (nos. 2, 29, 34, 35), published at Arnheim and Cologne, being the same edition.

— A. D. 1598.

The maps in the Basle edition of Münster's *Cosmographia*, and in the English (Wolfe's) edition of Linschoten.

— A. D. 1600.

The map of Quadus. See *ante*, no. 99.

The map of Molineaux, which was reproduced by the Hakluyt Society in 1880, and of which a sketch of the east coast can be found in the *Nar. and Crit. Hist. America*, iii. 216, iv. 377.

The map in Metullus's *America*, based on Wytfliet.

The map by Jodocus Hondius of about this time, which is reproduced in the Hakluyt Society's edition of Drake's *World Encompassed*.

— A. D. 1601.

The map in Herrera's *Descripcion de las Indias*.

— A. D. 1603.

A map by Botero in his *Relaciones*, of which a sketch of a part of the east coast is given in the *Nar. and Crit. Hist. America*, iv. 378.

— A. D. 1606.

The map in Cespedes' *Regimiento de Navegacion* (Madrid, 1606).

195. A. D. 1606. Champlain's Map of Chatham Harbor, Cape Cod.

This is taken from the 1613 edition of Champlain; and is reproduced in the Quebec and Boston editions of Champlain.

196. A. D. 1606. Champlain's Map of Gloucester Harbor, Cape Ann.

This is taken from the 1613 edition of Champlain; and is reproduced in the Boston and Quebec editions of Champlain.

197. A. D. 1606. **Champlain's Map of St. Croix Island.**

This is taken from the 1613 edition of Champlain. It is reproduced in the *Nar. and Crit. Hist. America*, iv. 137, as well as in the Boston and Quebec editions of Champlain.

— A. D. 1606.

Champlain's map of the harbor of Plymouth, Mass. It is reproduced from the 1613 edition, in the Quebec and Boston editions of Champlain, in the *Mag. of Amer. History*, in the *Nar. and Crit. Hist. America*, iv. 109, and in W. T. Davis's *Anc. Landmarks of Plymouth*, 35.

— A. D. 1609.

Lescarbot's map. Cf. *ante*, no. 165, and facsimile in *Nar. and Crit. Hist. America*, iv. 152, with another in the *Memorial Hist. of Boston*, i. p. 49. The same map reappeared in the editions of Lescarbot in 1611 and 1612, and in the English edition, called *Nova Francia*, in 1609. There are other facsimiles of the map in Tross's reprint of Lescarbot, in Faillon's *Colonie Française*, i. 85, and in the *Popham Memorial*.

Also his map of Annapolis Basin, Nova Scotia, reproduced in the *Nar. and Crit. Hist. America*, iv. 140, together with Champlain's (p. 141) of the same.

— A. D. 1610.

A rude map of the coast of New England and Acadia in the Poore Collection of French Documents in the State House, Boston; sketched in the *Nar. and Crit. Hist. America*, iv. 143.

— A. D. 1612-13.

The coasts of Labrador, Acadia, and New England are shown in Champlain's two general maps of 1612 and 1613, which, beside being reproduced in the Boston and Quebec editions of his *Works* and *Envoies*, are given also in facsimile, with references, in the *Nar. and Crit. Hist. America*, iv. pp. 380, 381, 382.

— A. D. 1613.

The map in connection with De Quir's narrative in the *Detectionis Freti*, etc. Amsterdam, 1613.

The map of the new world in the Hondius-Mercator *Atlas* of 1613, and the special maps of Virginia and Florida.

The western hemisphere by Michael Mercator in the same.

The map of Johannes Oliva in the British Museum.

198. A. D. 1614. **John Smith's New England.**

Kohl followed the map in the *Generall History*, 1632. The map first appeared in his *Description of New England* (London, 1616). The same plate, successively changed or added to was used in later issues associated with Smith's name, and a collation of the map in all these issues shows that copies of it exist in at least ten different states of the plate. These are all indicated in the *Memorial Hist. of Boston*, i. p. 52, whence the detailed statement in Arber's edition of Smith is copied. The map was copied by Hulsius in 1617, was used several times by him, and one state or another of Smith's plate has been repeatedly reproduced in later days, as described in the *Mem. Hist. Boston*, to whose enumeration may be added the facsimile in the volumes of

The English Scholars' Library, edited by Edward Arber (London, 1884), entitled *Capt. John Smith: Works*; and the map called *Nouvelle Angleterre exactement décrite par le Capitaine Jean Smith dans les deux voyages faits en 1614 et 1615*, published at Leyden in 1780.

199. A. D. 1616. **New Netherland.**

This shows the coast from below Chesapeake Bay to beyond the Penobscot, and is the so-called "Figurative map," discovered in Holland by Brodhead. Portions of this map are shown in the *Nar. and Crit. Hist. of America*, iv. 433; Cassell's *United States*, i. 247; *Mem. Hist. Boston*, i. p. 51. The whole map is given in *Doc. relative to the Colonial Hist. of N. Y.* l. 13, and in O'Callaghan's *New Netherland*. See the section on early maps of New England in the *Nar. and Crit. Hist. America*, iii. p. 381.

200. A. D. 1618. **Lescarbot's Florida.**

From upper Florida to Port Royal. Taken from the plate in the 1618 edition of his *Nouvelle France*. Kohl says some of his errors respecting the region about St. Augustine were copied by De Laet (see *post*, no. 203). The "Rivière de May" is made to flow to the sea from a "Grand lac" in the interior. Lescarbot professes to have marked not a thirtieth part of the Indian villages, while he names those which he gives after their chiefs.

201. A. D. 1621. **A. Jacobsz' Americae Septentrionalis pars.**

This is the engraved facsimile of a painted map in Dr. E. B. O'Callaghan's *Documents relating to the Colonial History of New York*, given as "from the West-Indische Paskaert, beschreven door A. Jacobsz [1621]," published at Amsterdam. It shows the coast from Labrador to the island of Trinidad, with the Central American coast on the Pacific side.

There is a sketch of a part of the east coast in the *Nar. and Crit. Hist. America*, iv. 383, and facsimiles are in Valentine's *New York City Manual*, 1858, and in the *Penn. Archives*, 2d ser. vol. v.

202. A. D. 1622. **Roanoke by Strachey.**

Though thus marked differently, this is the same map as no. 191.

— A. D. 1622.

The maps of the two Americas in Kasper von Baerle's edition of Herrera.

— A. D. 1624.

The map of the New England and Nova Scotia coasts which appeared in Alexander's *Encouragement to Colonies*, was reproduced in Purchas's *Pilgrim*, iv. p. 1872, and is given in facsimile in the *Nar. and Crit. Hist. of America*, iii. 306.

203. A. D. 1625. **Florida by De Laet.**

This is from the original edition of De Laet in 1625, and includes the country from Virginia to the Mississippi. It was repeated in later editions, and is called "Florida et regiones vicinae." The inland geography is based on De Soto's journey. The Mississippi is a bay, "Bahia del Spiritu Santo," fed by many streams. For Florida (peninsula) he seems to have depended on the accounts of Menendez, and for South Carolina on Lescarbot (see *ante*, no. 200). An interior lake (Lacus Magnus) may have grown

from some rumor, Kohl thinks, of Lake Erie, but it was in the Lescaubot's map in 1618. A facsimile of the North Carolina coast is given in the *Nar. and Crit. Hist. America*, iii. p. 125.

— A. D. 1625.

Brigg's map in Purchas's *Pilgrims*, iii. See *ante*, no. 167.

The map of Virginia and Florida in *Ibid.* iii. 869 (after Hondius).

— A. D. 1626.

The map of this date in Speed's *Prospect*, London, 1676.

204. A. D. 1630. From Carolina to Nova Scotia by De Laet.

This is the "Nova Anglia, Novum Belgium et Virginia" of De Laet's *Novus Orbis* of 1630. It seems to combine the results of the French, Dutch, and English explorations, and names in the corresponding languages appear along the coast. The Delaware rises in a large lake, which Kohl thinks may have been intended for Lake Ontario. The "Grand Lac" at the north would indicate some knowledge of Champlain's discoveries. Smith's map of Chesapeake bay and White's map of Virginia are followed in part. Portions are given in facsimile in the *Nar. and Crit. Hist. America*, iii. 125, iv. 436. Cf. sketch of De Laet's "Nova Francia et regiones adjacentes," in the *Nar. and Crit. Hist. America*, iv. 384.

— A. D. 1632.

Champlain's great map. See *ante*, no. 170.

205. A. D. 1634. William Wood's New England.

It shows the coast from York (Me.), to Narragansett Bay. This is the "South Part of New England" as it is planted this year, 1634," belonging to Wood's *New England's Prospect*, London, 1634.

There are facsimiles in the *Mem. Hist. Boston*, i. p. 524; Palfrey's *New England*, i. p. 360; Young's *Chronicles of Mass.* 389, and separately reproduced by Wm. B. Fowle in 1846.

— A. D. 1634.

A MS. map of the Massachusetts Bay Colony of about this year, made apparently by Gov. Winthrop, found among the Sloane MSS. in the British Museum in 1884 by Henry F. Waters. A full size photographic facsimile was made for the Boston Public Library; a smaller, but less defective one, was made for the *Nar. and Crit. Hist. America*, vol. iii.

206. A. D. 1635. Maryland.

This is the "Nova Terræ-Mariæ tabula" which appeared in *The Relation of Maryland*, London, 1635. Smith's map is followed in the main for Chesapeake bay, with some details omitted, and others added. The names on the Potomac are those given by Lord Baltimore's colony, not by Smith. Cf. reproduction in the *Nar. and Crit. Hist. America*, iii. 525. It was followed in Ogilby's *America* (London, 1671). See *post*, under 1670-73.

— A. D. 1635.

The map "Nova Belgica et Anglia Nova" in the *Nieuwe Atlas* of Blaeu, Amsterdam, 1635, which was largely followed by Dudley.

The map "Partie méridionale de la Virginie et de Floride," published by Vander Aa.

— A. D. 1636.

The maps in the English edition of the *Mercator-Hondius Atlas*, translated by Henry Hexham, and printed at Amsterdam in 1636. Beside the general maps in vols. i. and ii., there are in vol. ii. special maps of Virginia, apparently following Smith; of the coast from the Chesapeake to Texas; while the map "Nova Anglia, Novum Belgium et Virginia" shows the coast from Nova Scotia to Carolina. The New England part is a mixture of Smith's draft and the Dutch maps. The Delaware rises in a large lake, which is connected by another stream with the Hudson.

207. A. D. 1638. New England, New Netherland, and Virginia by J. Jansson.

This closely resembles no. 204, and covers the same territory.

— A. D. 1646.

Maps by Petrus Kaerius, dated 1646, in Speed's *Prospect*, London, 1668. See *post*, under 1651.

— A. D. 1646.

Dudley's maps of the east coast in his *Arcano del Mare* are sketched in the *Nar. and Crit. Hist. America*, iii. 303, iv. 385. One of them was re-engraved in the *Documentary Hist. of N. Y.*

His *Arcano* contains the following special charts:

1. Gulf of St. Lawrence and adjacent parts (see *ante*, under no. 172).
2. The coast from Monhegan to Cape May.
3. The coast from Cape May to Florida.
4. Chesapeake Bay and the North Carolina sounds.

— A. D. 1650.

A map of the New England coast, of which a drawing is in the *Mass. Archives, Docs. Collected in France*, ii. 61, and a sketch in the *Nar. and Crit. Hist. of America*, iii. 382.

— A. D. 1651.

Map of this date in Speed's *Prospect*, London, 1676. See *ante*, under 1646.

— A. D. 1651.

Visscher's map of Delaware Bay, in Campanius, which is reproduced in Eggle's *Pennsylvania*, 43, and in the *Nar. and Crit. Hist. America*, iv. 467.

— A. D. 1651.

The curiously distorted *Map of Virginia*, showing the coast from New England to North Carolina, by "Domina Virginia Farrer," published in London 1651, and reproduced in the *Nar. and Crit. Hist. America*, iii. 465. Cf. *Mass. Hist. Soc. Proc.* xx. 102.

— A. D. 1651.

Map of the Chesapeake based on John Smith's, in *Atlas Minor* published by Jansson at Amsterdam, vol. ii. p. 389.

— A. D. 1652.

The general maps of America by C. F. Visscher (auteur N. I. Piscator), with the special map of New Netherland, which is reproduced by Asher. Cf. maps under no. 100, *ante*.

203. A. D. 1654. Lindström's New Sweden.

This is a map of the Delaware River and Bay, made by a Swedish engineer. It is given in the *Nar. and Crit. Hist. America*, iv. 481; *Nouv. Annales des Voyages*, Mars, 1843; *Pennu. Hist. Soc. Memoirs*, iii.; *Gay's Pop. Hist. United States*, ii. 154.

The MS. map of Lindström was on a much larger scale, and this has been engraved in Reynold's edition of Acrelius.

— A. D. 1654.

A *Paseaert* published at Amsterdam has these maps of the coast:

No. 13. From Labrador to the Chesapeake.

No. 14. From Delaware Bay to Trinidad.

No. 15. From Nova Scotia to Carolina.

209. A. D. 1656. Vanderdonck's New Netherland.

From the Delaware to beyond the Connecticut, with the valley of the Hudson. It accompanied Adrian Vanderdonck's *Beschrijvinge van Nieuw Nederland*, Amsterdam, 1656, and there is a heliotype of it in the *Nar. and Crit. Hist. America*, iv. 438, and facsimiles are in various other places there enumerated, as well as in Weise's *Hist. of Albany*, 47.

210. A. D. 1656. Sanson's Canada.

Shows the coast from Labrador to the Chesapeake. This is a preliminary sketch. Cf. *ante*, under no. 172. It is partly sketched in the *Nar. and Crit. Hist. America*, iii. 456; iv. 391.

— A. D. 1659.

Map in Petavius's (Petau's) *History of the World*. The coast charts in Doneker's *Zee-Atlas*, repeated in later editions.

The "Novi Belgii, novæque Angliæ necnon Partis Virginie tabule" of N. L. Visscher, published at Amsterdam, 1659.

— A. D. 1660.

The map in Creuxius's *Historia Canadensis* shows the east coast. See *ante*, no. 173. This map is given in facsimile in Shea's *Mississippi*, p. 50, in the *Nar. and Crit. Hist. America*, iv. p. 389, and in Martin's transl. of Bréssani's *Relation*.

— A. D. 1661.

The "Paseaerte van Nieu Nederland" in Van Loon's *Atlas* (no. 46), and the coast north of Boston in no. 45.

— A. D. 1662.

A map of the Carolina coast, as explored by William Hilton and drafted by William Shapley. A facsimile of the original in the British Museum is given in the *Mass. Hist. Soc. Proceedings*, December, 1883, p. 402, and a sketch in the *Nar. and Crit. Hist. America*, vol. v.

— A. D. 1662.

Map of the New England and New Netherland coast in the Blaeu Atlas, in the volume called *America, pars quinta*. It was repeated in the edition of 1685. There is a sketch in the *Nar. and Crit. Hist. America*, iv. 391.

— A. D. 1663.

The map of the new world of this date used in Heylin's *Cosmographie*, 1666, 1674, 1677.

— A. D. 1663.

A MS. map of the coast of Acadia, of which a copy is preserved in the Poore collection in the Mass. Archives, and is sketched in the *Nar. and Crit. Hist. America*, iv. 148.

— A. D. 1666.

A map of "De Noord Rivier" published at Middleburgh, and also in Goos's *Zee-Atlas*, shows the coast about New York harbor. It is reproduced in the Lenox edition of the *Vertoogh and Breeden Raedt* and in the *Nar. and Crit. Hist. America*, iv. 440.

— A. D. 1666.

A map of the Carolina coast appended to *A brief Description of the Province of Carolina*, London, 1666. The map is reproduced in Hawks's *North Carolina*, and in Gay's *Pop. Hist. United States*, ii. 285.

— A. D. 1669.

The map "Amérique Septentrionale" of G. Sanson.

— A. D. 1670.

The map of the Carolina region given in John Lederer's *Discoveries*, London, 1672. There is a sketch of it in Hawks's *North Carolina*, and a facsimile in the *Nar. and Crit. Hist. America*, vol. v.

— A. D. 1670-73.

The maps in Montanus, Dapper, and Ogilby at this time were mainly from the same plates, but there were exceptions:

1. *De nieuw en onbekende Weereld door Arnold Montanus*, Amsterdam, 1671. The map of America is marked "per Gerardum a Schagen," and represents the great lakes beyond Ontario merged into one. Some copies are dated 1670.

2. *Die onbekante Nieu Welt . . . durch Dr. O. D.* (i. e. Olfert Dapper); the name of Montanus, from whom it is a translation, not appearing. It is published by the same Jacob von Meurs as no. 1, but omits the dedication to the Prince of Nassau, and has a different "privilegium" and a "Vorrede an den Leser," not in no. 1. It has the same map of America, but it is newly engraved, with different vignettes, and is marked "per Jacobum Meursium."

3. *America, being an accurate description of the New World*, London, 1670. This is mainly a translation of Montanus by John Ogilby, and notwithstanding the date (1670) in the title, there is a reference on p. 211 to the "present year, 1671." Most of the maps and engravings are from the plates used in nos. 1 and 2; but the map of America is an entirely different one, marked "per Johannem Ogilium . . . F. Lamb, sculp." A part of this map is given in facsimile in the *Nar. and Crit. Hist.*

America, iv. 393. There is an extra map of the Chesapeake, of English make, beside the one taken from Montanus, and also English maps of Jamaica and Barbadoes, not in Montanus.

4. *America; being the latest and most accurate description of the New World*. This is made up of the same sheets as no. 3, with a new title and an appendix, not in no. 3. The maps of no. 3 are repeated.

The map in Richard Blome's *English Empire in America*, in which he followed Sanson.

Of about this date is a chart of the New England coast with soundings (measurements $\frac{1}{2} \times 2\frac{1}{2}$ feet), found in 1884 by H. F. Waters in the British Museum.

— A. D. 1675.

A Dutch atlas of Roggerveen, published in several languages, known in English as the *Burning Fen*, contains various coast charts:

No. 1. Cape Breton to South Carolina.

No. 2. Newfoundland to New England.

No. 29. North Carolina, with Chesapeake and Delaware bays.

No. 30. The Delaware Bay, mouth of the Hudson, and Long Island.

No. 31. Narragansett to New York.

There are enumerations of Dutch *Zee-Atlassen* in the *Inventaris der Verzameling Kaarten berustende in het Rijks-Archief*, (s'Gravenhage, 1867), and in P. A. Tiele's *Nederlandsche Bibliographie van Land- en Volkenkunde*, (Amsterdam, 1884).

See *post*, no. 218, for Seller's map of New England.

— A. D. 1676.

The maps of New England and New York, in Speed's *Prospect*, based largely on the Dutch drafts; of Virginia and Maryland, based on Smith; and of the Carolinas.

— A. D. 1677.

The map in Hubbard's *Narrative of the Troubles in New England*, Boston, 1677, and London, 1677, — the latter plate being reproduced in Palfrey's *New England*, iii. p. 155, and in Judge Davis's ed. of Morton's *Memorial*.

— A. D. 1680.

A chart of the coasts of Maine, New Hampshire, Massachusetts, and New Plymouth (measuring $3\frac{1}{2} \times 2\frac{1}{2}$ feet), discovered in the British Museum by H. F. Waters in 1884.

— A. D. 1680.

A map of the New England coast in the French Archives, copied by Mr. Poore in the French documents (*Mass. Archives*), and sketched in the *Nar. and Crit. Hist. America*, iii. 383.

Maps of the New Netherlands coast, including New England, much resembling one another, are found dating probably about this time, though the year is usually lacking, respectively assigned to Jansson, Schenck, Vischer, Danckers, Ottens, Allard, Seutter, etc. They are Dutch and German, and were probably occasioned by the temporary success of the Dutch at New Amsterdam in 1673.

211 and 212. A. D. 1682. **Wilson's Carolina.**
(Two copies.)

Shows the coast from the Chesapeake to St. Augustine, with a corner map of the Cooper and

Ashley rivers. From a printed map belonging to Samuel Wilson's *Account of the Province of Carolina in America*, London, 1682. The map is called "A new Description of Carolina, by order of the Lords Proprietors." The book throws no light on the origin of the map, but Kohl suspects White's map may have been the basis of the North Carolina part, and Wm. Sayle's surveys have been used for the more southerly parts. Kohl says that the boundary line here given between Carolina and Virginia is the earliest instance of its being laid down in a map. The river May flows from a large "Ashley Lake."

It is also found in Chas. Deane's copy of Ogilby's *America*, and perhaps in other copies.

— A. D. 1683.

Hennepin's *Carte de la Nouvelle France* shows the east coast. See *ante*, under no. 179.

213. A. D. 1684. **Hack's Carolina.**

This map is very nearly identical with nos. 211 and 212, and is signed "Made by William Hack at the signe of Great Britaine and Ireland, near new stairs in Wapping. Anno Domini 1684." The original is a printed map.

— A. D. 1684.

Franquelin's great map shows the east coast. It is sketched in the *Nar. and Crit. Hist. America*, iv. 228. See *ante*, under no. 100.

— A. D. 1685.

The "Nova Belgica et Anglia nova" in Blaeu's *Atlas*. See *ante*, under A. D. 1662.

Minet's *Carte de la Louisiane* shows the east coast. It is sketched in the *Nar. and Crit. Hist. America*, iv. 237.

Map of New England in Seller's *New England Almanac*, of which there is a reproduction in Palfrey's *New England*, iii. 489.

See the map of New England and New York, given in Cassell's *United States*, i. 330, as dated 1684, and engraved by Michault.

— A. D. 1687.

The maps by Morden in Blome's *Present State of his Majesty's Isles and Territories in America*, London, 1687. The map of New England is reproduced in the *Papers concerning the attack on Halffield and Deerfield*, New York (Bradford Club), 1859; that of Carolina is in the *Nar. and Crit. Hist. America*, vol. v.

— A. D. 1688.

The "Canada" of Coronelli, "Corrigée et augmentée par Tillemont," "partie orientale," published in Paris in 1688, and on a reduced scale in 1689, shows the east coast, after the Dutch drafts.

The map of New England in the Amsterdam editions (1688, 1715) of Blome is different from the one named *ante*, under A. D. 1687. That of 1688 is reproduced in the *Nar. and Crit. Hist. America*, vol. v.

— A. D. 1689.

A MS. map by Raudin in the collection of Mr. S. L. M. Barlow in New York.

— A. D. 1690.

A map of New England and New York, published in London by Thomas Basset about 1690. It has the characteristics of the prevailing Dutch cartography, and twenty-five copies have been reproduced in facsimile for J. Hammond Trumbull.

— A. D. 1691.

The map in Leclercq's *Établissement de la Foy*, which is reproduced in J. G. Shea's translation of that book.

214. A. D. 1696. Cotton Mather's New England.

The "Exact Mapp of New England and New York," contained in Mather's *Magnalia*, London, 1702, in which he speaks of his map under date of 1696. There has been a facsimile made of it. It is also reproduced in Cassell's *United States*, i. pp. 492, 516.

— A. D. 1697.

Hennepin's map in the *Nouvelle Découverte*. Allard's *Minor Atlas* of about this date contains: "Nova Belgica et Anglia nova," presenting the prevailing Dutch drafts. "Totius Neobelgii nova tabula" gives the coast from the Chesapeake to the Penobscot, with a picture of New York after its recapture (1673). "Nova Virginia tabula," following Smith's map.

— A. D. 1698.

Gabriel Thomas's map of the New Jersey coast and Delaware Bay, which appeared in his *Account of Pennsylvania*, and is reproduced in Cassell's *United States*, i. 282, and in the *Nar. and Crit. Hist. America*, iii. 501.

— A. D. 1700. (?)

Courtenay in the *Charleston Year Book* (1883) places before 1700 "A new map of Carolina," of which he gives a facsimile.

A colored chart of about this date, showing the coasts of New France, New Scotland, and New England (measuring $1\frac{1}{2} \times 1\frac{1}{2}$ feet) found by Mr. H. F. Waters in the British Museum in 1884.

215. A. D. 1700. Province of New York.

It shows the country as far north as the Mohawk, from a little distance east of the Connecticut to a meridian west of Perth Amboy. It follows a map in the State Paper Office, London, marked: "A map of the Province of New Yorke in America by Augustin Graham, Surveyor-General," and is dedicated to Lord Bellomont. The last grant on the map is put down as in 1697, and Kohl conjectures the map must have been made about 1700. The grants distinguished are chiefly on the eastern side of the Hudson, and date from 1684 to 1697. It shows also the grant along both sides of the Mohawk River in 1697 to Godfray Dellius.

216. A. D. 1700. The same.

Another copy, less perfect, and without annotations.

— A. D. 1701-1721.

The maps in John Thornton's *Atlas Maritimus*.

— A. D. 1702.

The map in Campanius. See *ante*, under no. 100, and his more detailed map showing the coast from Maine to the Chesapeake, given also in facsimile in the *Nar. and Crit. Hist. America*, iv. 485.

217. A. D. 1709. Lawson's Carolina.

Shows the coast from Cape Henry to St. Augustine. It is copied from the map in John Lawson's *History of Carolina*, London, 1714. The first edition was in 1709, and the map is repeated in the German translation, Hamburg, 1712, 1722.

— A. D. 1709.

La Hontan's *Carte Générale de Canada* shows the New England and Acadian coast, and this part is given in facsimile in the *Nar. and Crit. Hist. America*, iv. 153.

218. A. D. 1711-? Seller's New England.

Shows the coast from the Kennebec to beyond the Connecticut River. It is called "A mapp of New England by John Seller, hydrographer to the King," and was made not long after 1700, as Kohl thinks. The original, which is more extended, is in Harvard College library, and a text accompanying it seems to be taken from Josselyn's *Two Voyages*. It is certainly not so late as Kohl puts it, since Josselyn's book was printed in 1674, and the map itself is mentioned in the *London Gazette* in 1676, as follows: "There is now extant a map of New England, as is now divided into three great colonies of Plymouth, Massachusetts, and Connecticut, with a printed description by John Seller."

— A. D. 1713.

The rude delineation of the east coast in Joutel's *Journal historique*, Paris, 1713. This map is reproduced in the *Mag. of Amer. Hist.* 1882, p. 185, and in A. P. C. Griffin's *Discovery of the Mississippi*, p. 20.

— A. D. 1718.

Nicolas de Fer's "Partie meridionale de la riviere de Mississippi" shows the Carolina and Florida coasts.

219. A. D. 1720 (?) Carolina.

This follows a MS. map preserved in the British State Paper Office, bearing no date, but evidently made after 1715. On it is marked:

"1. The way Coll. Barnwell marched from Charlestown, 1711, with the forces sent from S. Carol. to the relief of N. Carolina.

"2. The way Coll. J. Moore marched in the 1712 with the forces sent for the relief of North Carolina.

"3. The way Carol. Maurice Moore marched in the year 1713 with recruits from South Carolina.

"4. The way Carol. Maurice Moore went in the year 1715 with the forces sent from North Carolina to the assistance of S. Carolina. This march was farther continued from Fort Moore up Savano river, near a N. W. course, 150 miles to the Charokee Indians, who live among the mountains."

There is a sketch of the map in the *Nar. and Crit. Hist. America*, vol. v.

— A. D. 1722.

The map of "Nouvelle France" in La Potherie, repeated in the 1753 edition.

— A. D. 1728.

The *Atlas maritimus et commercialis* (London) has charts of Delaware and Chesapeake bays, the New England coast, the St. Lawrence gulf, and Boston Harbor.

220. A. D. 1730. Indian Map of South Carolina.

It is marked: "This map describing the situation of the several nations of Indians to the N. W. of South Carolina was copied from a draught, drawn and painted on a deer skin by an Indian cacique, and presented to Francis Nicholson, Esq^r, Governour of South Carolina, by whom it is most humbly dedicated to his Royal High. George, Prince of Wales."

This is taken from the original in the British Museum.

— A. D. 1730.

The map by Herman Moll, attached to Davis Humphrey's *Hist. Acc. of the Soc. for propagating the gospel in foreign parts*, London, 1730. It has a marginal map of the South Carolina coast, which is reproduced in the *Nar. and Crit. Hist. America*, vol. v.; which may be compared with the map in Moll's *New Survey*, 1729 (no. 26), which is given in facsimile in Cassell's *United States*, i. 439.

221. A. D. 1733. Popple's Boston Harbor.

See an enumeration of the maps of Boston Harbor in the *Memorial Hist. Boston*, vol. i. ii. and iii.

222. A. D. 1733. Popple's Town and Harbour of Charlestown, S. C.

223. A. D. 1733. Popple's Harbour of St. Augustine.

224. A. D. 1733. Popple's New York and Perth Amboy Harbours.

Nos. 221 to 224 are marginal maps annexed to Popple's great map of *The British Empire in America*, which has 14 other charts of harbors, beside 3 views of towns. It was first issued in 1732, and a reproduction appeared in Amsterdam about 1737. The *Catalogue of the British Museum MSS.*, no. 23,615 (fol. 72), shows a draft by Popple of the English and French possessions, dated 1727.

— A. D. 1738.

The map of America in Keith's *Virginia*.

— A. D. 1741.

Moll's maps in Oldmixon's *British Empire*; also in edition of 1708.

— A. D. 1742.

The *English Pilot*, published at London, has various coast charts:

Nos. 2. Newfoundland to Hudson's Bay.

3. Labrador to Cape St. Roque.

4. Another covering the same.

5. Newfoundland to Maryland.

6. Casco Bay by Cyprian Southicke (dated London, 1720).

7. Newfoundland coast by Henry Southwood.

13. Cape Breton to New York, with separate plan of Boston Harbor. Cape Cod is pierced at the angle.

14. New York Harbor and vicinity by Mark Tiddeman.

15. Chesapeake and Delaware bays.

16. Lower Chesapeake and the Virginia rivers.

19. Carolina and Charleston Harbor.

— A. D. 1746-1748.

D'Anville's "Amérique Septentrionale" (Paris); but a new draft with improvements was published at Nuremberg in 1756.

— A. D. 1747.

"America" in Bowen's *Complete System of Geography*.

— A. D. 1753.

Robert de Vaugondy's *Carte de Canada*.

— A. D. 1755.

Jeffery's *New Map of Nova Scotia*, etc., showing the coast from Labrador to Boston.

Lewis Evans' map of the *Middle British Colonies, with improvements by J. Gibson*, which is reproduced in Whittlesey's *Cleveland*.

John Huske's *Present State of North America*, 2d ed., London (1755), has a map showing the English claims and French encroachments.

William Douglass' *Summary of the British Settlements in North America*, Boston, reprinted London, has D'Anville's map "improved with the back settlements of Virginia." Cf. Sabin, xii. no. 47,552.

Various other maps were published at this time, occasioned by the controversy between the French and English governments as to the bounds of their respective possessions in America.

— A. D. 1757.

Carte de la Nouvelle Angleterre par M. B.

— A. D. 1764.

Map of North America by M., new ed. by Vaugondy, 1772, reproduced in the French *Encyclopédie*, Supplément, 1777.

— A. D. 1769.

Captain Cluny's map of North America in *The American Traveller*, reproduced in the French *Encyclopédie*, Supplément, 1777.

225. A. D. 1787. Franklin's Gulf Stream.

It shows the coast from Labrador to Florida, and is endorsed: "This draft of that Stream was obtained from Capt. Folger, one of the Nantucket whalemens, and caused to be engraved on the old chart in London, for the benefit of navigators, by B. Franklin." Kohl calls this the first attempt specially to indicate the Gulf Stream on a chart. The preferable track for sailing from New York to England is picked on the chart. It is copied from an engraved map in Franklin's *Philosophical and Miscellaneous Papers* (London, 1787).

VII.

THE MISSISSIPPI VALLEY.

* * See also the maps in Sections II., III., and VIII.

— A. D. 1500, etc.

The earliest maps show what stands with some for the Gulf of Ganges, and with others for the Gulf of Mexico (as in the Admiral's, *ante*, no. 32, and Reisch's, *ante*, no. 33). They also show in the country north of this gulf, the region ultimately to be developed as the Mississippi Valley. We begin to have a rudimentary river, usually called "Rio de Spiritu Santo" as in the map of the gulf published by Navarrete (*post*, no. 247); and this representation of a great river, flowing into the north part of the gulf, can be traced down through various maps, like that of Cortes in 1524 (*post*, no. 248); of Maiollo in 1527 (*ante*, under no. 39); those of Ribero, 1529 (*ante*, no. 41); Mercator, 1541 (under no. 54); the Ulpius globe, 1542 (under no. 55); the Cabot mappemonde, 1544 (under no. 56); the Medina map of 1545 (no. 59); the map given in the *Nar. and Crit. Hist. America*, ii. p. 292; Bellerio's of 1554 (no. 64); Vopellio's of 1556 (under no. 66); Homem, 1558 (no. 67); Zaltiere, 1566 (no. 94); Des Liens, 1566 (under no. 69); Dr. Dee's, 1587 (no. 96), and De Bry's, 1596 (cf. *Nar. and Crit. Hist. Amer.*, iv. 99).

Maps of the type of Mercator (no. 71), Ortelius, 1570 (no. 72), and Martines (nos. 75, 77) make the water-ways run across the continent.

We find the earliest special treatment of this river, in a kind of parallel network of streams, as shown in Wyttliet's *Florida et Apalche* (no. 264); and Wyttliet's draft is followed in a map of about 1622, *America noviter delineata, auct. J. Ludov. Hondio, Johannes Janssonius excudit*, and in another of 1636, called *Novissima et accuratissima totius Americae descriptio*, per N. Vischer.

Jefferys, in the map in his *Northwest Passage*, 1768, shows the course of the lower Mississippi by a dotted line, professing to engrave the map from the "Herrera of 1608;" but the maps in the early editions of Herrera do not have the dotted line.

226. A. D. 1656. Sanson's Mississippi.

It represents the mouth of the Mississippi as a bay ("Bahia del Espiritu Santo") into which various rivers empty, having their sources in a semi-circular range of mountains, of which one end extends towards the Florida peninsula, and the other is in Texas. The names within this belt of mountains are derived from the accounts of De Soto's march.

Later maps of Sanson follow this draft, as in his *Amerique Septentrionale*, 1669.

227. A. D. 1673. Marquette's Upper Mississippi, showing the portages to Lake Huron.

It follows a sketch preserved in St. Mary's College, Montreal, and is copied from the engraving of it given in French's *Hist. Coll. of Louisiana*, iv. Dr. Shea first brought forward this map, in his *Discovery of the Mississippi*, in 1853; and he used the facsimile which he caused to be made for that book, in his edition of the Jesuit *Relations of 1673-79*; and it has since been reproduced in Douniol's *Mission du Canada* (with a sketch of a cabin on it, which does

not belong to it), Blanchard's *History of the Northwest*, Huribut's *Chicago Antiquities*, Andreas' *Chicago*, in the *Report of the U. S. Chief of Engineers*, 1876, vol. iii., and in the *Nar. and Crit. Hist. America*, iv. 220.

229. A. D. 1673. Marquette's Mississippi extended to the gulf.

This follows the map given in Thevenot's *Recueil de Voyages*, Paris, 1681, as Marquette's, but which was the work of the Jesuits. (Cf. Harris, no. 202.) The sketch in the *Nar. and Crit. Hist. America*, iv. 221, is from the Parkman copy of the original map, which has now disappeared from the Bibliothèque Nationale in Paris. Sparks, in his *Life of Marquette*, copies the engraving in Thevenot, whose title differs from that of the Parkman copy. The *Catal. of the Library of Parliament* (Toronto), 1858, shows another copy. It is reproduced in Andreas' *Chicago*, i. 47, and in Breese's *Early Hist. of Illinois*.

— A. D. 1673.

Pays et peuple découverts en 1673 dans la partie septentrionale de l'Amérique par P. Marquette et Joliet, suivant la description qu'ils en ont faite, rectifiée sur diverses observations postérieures de nouveau mis en jour par Pierre Vander Aa à Leide.

— A. D. 1674.

Joliet's earliest map, *Nouvelle découverte de plusieurs nations dans la Nouvelle France en l'année 1673 et 1674*, showing the whole length of the Mississippi, and published by Gravier in colored facsimile, in an *Étude sur une carte inconnue*, which appeared in the *Mémoires du Congrès des Américanistes*, 1879, and in the *Revue de Géographie*, Feb. 1880. This reduced colored facsimile is given in the *Mag. of Amer. Hist.* 1883, and in A. P. C. Griffin's *Discovery of the Mississippi*; and there are sketches of it in Andreas' *Chicago*, i. p. 49; and in the *Nar. and Crit. Hist. America*, iv. p. 208.

Cf. a map in the Parkman Collection, of which there is a sketch in the *Nar. and Crit. Hist. America*, iv. p. 206.

— A. D. 1674.

Joliet's larger map is supposed to be lost. There is what is called a copy in the Barlow Collection of Maps, belonging to S. L. M. Barlow, Esq., of New York. A sketch of it is given in the *Nar. and Crit. Hist. America*, iv. pp. 212, 213. Cf. Harris, *Notes sur la Nouvelle France*, no. 203. (See *ante*, no. 177.)

— A. D. 1674.

Joliet's smaller map is also in the Barlow Collection, and a sketch from it is given in the *Nar. and Crit. Hist. America*, iv. p. 214. Cf. Harris, no. 204; Parkman's *La Salle*, p. 453.

Cf. for the Ohio valley, no. 3 of the Parkman maps, given in the *Nar. and Crit. Hist. America*, iv. p. 215.

— A. D. 1675.

The "Bahia del Spierto Santo" in Rogeeven's *Burning Fen*, no. 19.

— A. D. 1679-1681.

Harris (nos. 209, 213-218) cites early maps of Franquelin for these years. Parkman attributes to Franquelin a *Carte de l'Amérique septentrionale*, . . . avec les nouvelles découvertes de la Rivière Mississippi ou Colbert (cf. Parkman's *La Salle*, p. 455; Harris, no. 219).

— A. D. 1682.

From a copy of Franquelin's map of this date in the Barlow Collection, a sketch is given in the *Nar. and Crit. Hist. America*, iv. 227. It shows the mouth of the Mississippi, but there is a blank northward from the mouth till the Ohio is reached.

229. A. D. 1682 (?). Franquelin's Mississippi.

After a MS. map in the Dépôt de la Marine at Paris, called "Carte générale de la France septentrionale . . . Faite par le Sieur Jolliet." It is dedicated to Colbert. On the margin is "Johannes Ludovicus Franquelin pinxit."

Harris (no. 214) puts this under 1681. It is sketched from the Parkman copy in the *Nar. and Crit. Hist. America*, iv. 218.

230. A. D. 1682. The Mississippi by Hennepin.

It shows the coast from Maine to Texas, and extends to 60° north. It has no annotations, and is marked "Rejected."

231. A. D. 1683. Hennepin's Mississippi.

It shows the coast from Labrador to Texas. This is after the map in the 1683 edition of Hennepin's *Description de la Louisiane*, in which he combined Marquette's travels with his own, and left the lower Mississippi a dotted line. It is called *Carte de la Nouvelle France et de la Louisiane*. It is given in part in facsimile in the *Nar. and Crit. Hist. America*, iv. 249, with references; and the whole map is reproduced in Dr. Shea's edition of Hennepin, and in Winchell's *Final Rept. Geol. Survey of Minnesota*, p. 6. Cf. Harris, no. 352.

— A. D. 1684.

Franquelin's great *Carte de la Louisiane*, of which a sketch is given in the *Nar. and Crit. Hist. America*, iv. 228, from a copy in the Parkman Collection of maps in Harvard College Library. (Cf. Parkman's *La Salle*, pp. 295, 455; Harris, no. 222; Thomassy, *Géologie pratique de la Louisiane*, p. 227.)

Harris (no. 223) refers to a *Carte de l'Amérique septentrionale* of De la Croix, which is assigned also to Franquelin.

— A. D. 1685.

Carte de la Louisiane, by Minet. It is sketched in the *Nar. and Crit. Hist. America*, iv. 237, with references, from a copy in the Barlow Collection (cf. Harris, no. 225).

232. A. D. 1688. The Mississippi by Franquelin.

It is called *Carte manuscrite de l'Amérique septentrionale par J. B. Louis Franquelin, Hydrographe du Roy en Canada. Québec en 1688*. It gives the Mississippi a wide zigzag course, and makes it debouch on the coast of Texas. Kohl has not annotated it.

It has been engraved for E. D. Neill's *History of Minnesota*, 1882; and this engraving is reproduced in the *Nar. and Crit. Hist. America*, iv. 230, 231, and in Winchell's *Final Report of the Geological Survey of Minnesota*, vol. i. pl. 2.

233. A. D. 1688. The Mississippi by Coronelli.

This is from Father Coronelli's published map, *America Settentrionale*, 1688. He seems to have been ignorant of Marquette's discoveries. The Missouri is not indicated. The "Ouabache" is about where the Ohio should be; and the "Ohio" runs parallel with it further south.

A sketch of the map by Coronelli, as corrected by Tilleman, Paris, 1688, is given in the *Nar. and Crit. Hist. America*, v. 232. It was issued in two parts, — one of the eastern, the other of the western, portions of North America. These two were united in 1689 on a smaller scale.

— A. D. 1688.

Carte des parties les plus occidentales du Canada, par le Père Pierre Raffin, S. J. — a MS. map in the Bibliothèque nationale de Paris, from a copy of which in the Kohl Collection a sketch is given with the marginal inscriptions in the *Nar. and Crit. Hist. America*, iv. 233. There is another copy in the Barlow Collection. Cf. Harris, no. 238.

There is in the Barlow Collection a map, which Harris (Notes, etc., p. xxv. and no. 241) believes to be the lost original of a map by Raudin, Frontenac's engineer; and of this a sketch is given in the *Nar. and Crit. Hist. America*, iv. 235.

234. A. D. 1689. Lahontan's Long River.

This fabulous stream is represented as rising in the Rocky Mountains, and flowing into the Mississippi above the Missouri. Kohl thinks the river in question may have been the St. Peter's River. Lahontan professed to copy the western part of the river from an Indian map, made for him in that country.

This map appeared in the *Nouveaux voyages*, La Haye, 1709, vol. i. p. 136, and is reproduced in the *Nar. and Crit. Hist. America*, iv. p. 261.

235. A. D. 1689. Coronelli's Canada ou Nouvelle France.

It shows the coast from the Gulf of St. Lawrence to Texas, and gives the bounds between New France and the English possessions. Kohl thinks the present map a French imitation of no. 233.

— A. D. 1689-1699.

Harris (nos. 231, 232, 240, 248, 259) assigns various other maps to these years.

— A. D. 1691.

The map in Leclercq's *Établissement de la Foy*, which is reproduced in Dr. Shea's translation of that book.

— A. D. 1692.

Hubert Jaillot, who had inherited the plates of Nicolas Sanson, published in Paris what passes as Sanson's *Amérique septentrionale*, — the plate of which was long in use in Amsterdam and elsewhere.

236. A. D. 1698. Hennepin's Mississippi.

This shows the river carried to the gulf. It first appeared in Hennepin's *Nouvelle Découverte*, Utrecht, 1697, which had two distinct maps, showing the Mississippi extending to the gulf.

The first *Carte d'un très grand pays nouvellement découvert*, etc., is reproduced in the *Nar. and Crit. Hist. of America*, iv. pp. 252, 253, and was repeated in the editions of the *Nouvelle Découverte*, printed at Leyden in 1704, and was re-engraved in the English edition, *Discovery of a large, rich, and plentiful country* (London, 1720), with English names.

The second, *Carte d'une très grande pays entre le nouveau Mexique et la mer glaciale*, was used in the later editions of 1698, 1704, 1711, etc., with changes in successive issues, and is reproduced in the *Nar. and Crit. Hist. America*, vol. iv. p. 251, and in Breese's *Early Hist. of Illinois*, p. 98.

237. A. D. 1698. The Mississippi by De Fer.

He follows Coronelli in making the "Ouabache" and "Ohio" parallel streams. Published in Paris in 1698.

— A. D. 1700.

Carte des Environs du Mississippi, envoyée à Paris en 1700. Cf. Thomassy, *Géol. pract. de la Louisiane*, pl. i.

— A. D. 1701.

De Fer's *Costes aux Environs de la rivière Mississippi*. Cf. Thomassy, p. 201.

— A. D. 1702.

Thomassy (*Géol. pratique de la Louisiane*, p. 209) refers to an original draft by Guillaume Delisle, *Carte de la rivière du Mississippi, dressée sur les mémoires de M. Le Sueur*, 1702, which is preserved in the Archives Scientifiques de la Marine.

— A. D. 1702.

The map in Campanius' *Nya Sverige* gives the lower portions of the river rudely. There is a facsimile in the *Nar. and Crit. Hist. America*, iv. 394.

— A. D. 1703.

Lahontan's *Carte générale de Canada*, which appeared in his *Nouveaux Voyages*, La Haye, 1703, and was repeated in some of the later editions. It was re-engraved in the *Mémoires*, Amsterdam, 1741, vol. iii. It is reproduced, with references, in the *Nar. and Crit. Hist. America*, iv. 258.

— A. D. 1705.

De Fer's *Le Canada ou Nouvelle France*.

— A. D. 1703.

The map of Delisle, showing the route of De Soto, and called *Carte de la Louisiane et du Cours du Mississippi*, published in Paris, and repeated in Garlasso de la Vega's *Histoire des Incas*, etc., Amsterdam, 1707, and in Delisle's *Atlas Nouveau*, Amsterdam, 1740. It is reproduced in French's *Hist. Collections of Louisiana*, ii. (dated 1707); in Gravier's *La Salle* (1870); in part, in the *Nar. and Crit. Hist. America*, ii. p. 295; in Cassell's *United States*, i. p. 475; in Winchell's *Final Rept. of the Geol. of Minnesota*, i. p. 20. See *post*, no. 238.

— A. D. 1712.

Louisiana am Fluss Mississippi in the German translation of John Lawson's *Carolina*, Hamburg, 1712.

— A. D. 1713.

Carte Nouvelle de la Louisiane et de la rivière de Mississippi . . . dressée par le sieur Joutel, belonging to Joutel's *Journal historique*, Paris, 1713. A part of this map is given in the *Mag. of Amer. Hist.*, 1882, p. 185; and in A. P. C. Griffin's *Discovery of the Mississippi*, p. 20. Cf. Thomassy, *Géologie prac. de la Louisiane*, p. 210.

The English translation of this, *A Journal of the Last Voyage performed by La Salle, etc.*, Paris, 1714, has a map showing the course of the Mississippi. (Cf. *Nar. and Crit. Hist. America*, iv. 240.)

— A. D. 1715.

Herman Moll's *New and Exact Map of the Dominions of the King of Great Britain*, has a lesser map attached, called *Louisiana, with the Indian Settlements and Number of Fighting Men, according to the Account of Capt. T. Neurn*.

— A. D. 1718.

Le Cours du Mississippi on de Saint-Louis, par N. de Fer, embodying previous information, was made by direction "de la compagnie d'occident."

Partie meridionale de la rivière de Mississippi, par N. de Fer, extends north to the Illinois country.

238. A. D. [1719.] Delisle's Louisiana.

It shows the routes of De Soto and others. It is called *Carte de la Louisiane et du Cours du Mississippi*. It was followed by H. Moll in 1720, and Popple in 1732. Kohl says it is the earliest map to show the word Texas (Los Teijas), and to show the Cumberland and Tennessee Rivers.

Thomassy (*Géol. pratique de la Louisiane*, p. 211) refers to the June, 1718, map of Delisle. See *ante*, under A. D. 1703.

— A. D. 1719-20.

Thomassy gives a *Carte de la Côte de la Louisiane*, preserved in the Archives Scientifiques de la Marine in Paris, based on surveys made at this time by M. De Sérigny.

— A. D. 1720.

A new map of Louisiana and the river Mississippi, which appeared in *Some Considerations on the Consequences of the French settling Colonies on the Mississippi*. London, 1720.

Moll's *New Map of the North Parts of America*, 1720, follows Delisle's of 1718, for the Louisiana portion. It is reproduced in Lindsey's *Unsettled Boundaries of Ontario*, Toronto, 1873.

Gerard van Keulen published at Amsterdam a large map, *Carte de la Nouvelle France, où se voit le Cours des grandes Rivières Mississippi et St. Laurens*, with observations on French fortified posts.

De Beauvillier's *Carte nouvelle de la partie de l'ouest de la province de la Louisiane* (Thomassy, p. 214).

— A. D. 1722.

The "map of Carolana and the river Meschacebe" in Daniel Cox's *Description of Carolana*, London,

- 1727, and repeated in later editions. See *post*, no. 239.
- A. D. 1722.
La Potherie's *Carte générale de la Nouvelle France* in his *Hist. de l'Amérique septentrionale*, Paris, 1722, vol. ii, gives the misplacement of the mouths of the Mississippi which originated with La Salle.
- A. D. 1722.
Le Blond de la Tour's *Entrée du Mississippi en* 1722. (Cf. Thomassy, pl. iii.)
- A. D. 1724.
The "Carte de l'Amérique" in Lafitau's *Mœurs des Sauvages Américains*, Paris, 1724, vol. i. 24.
- A. D. 1724.
Plan particulier de l'embouchure du fleuve Saint-Louis, signed by De Pauger, royal engineer.
- A. D. 1726.
A "new map of Louisiana and the river Mississippi" in the *Memoirs of John Ker of Kersland*, London, 1726.
- A. D. 1729.
A map of New France and Louisiana in, Herman Moll's *New Survey of the Globe*, no. 27.
- A. D. about 1730.
Amplissima regiois Mississippi seu Provincie Ludoviciana a Hennepin detecta anno 1687, edita a Jo. Bapt. Homanno, Norimbergae. Has a marginal view of "Catarrhacta ad Niagaram."
Homann was a cartographer of easy conscience, who seldom dated his maps, and this one is little better than a re-engraving of the map in Joutel's *Journal historique*. See *ante*, under A. D. 1713. It was reproduced by Homann's successors in his business, and again by William Darby in his *Geographical Description of Louisiana* (2d ed. 1817), and Thomassy (p. 2) censures Darby for his choice of an early map.
- A. D. 1732.
D'Anville's *Carte de la Louisiane dressée en 1732; publiée en 1752*. The upper part of it is reproduced in Andreas' *Chicago*, i. 59.
- A. D. 1732.
Poppel's *British Empire in America* follows Delisle's map (1718) for Louisiana. It was reissued in 1733, 1740, and reproduced at Amsterdam in 1737. Sabin's *Dictionary*, xv. no. 64453.
- A. D. 1732.
Fleuve Saint Louis, ci-devant Mississippi, — a map preserved in the Bibliothèque Nationale, Paris, based upon observations made by Sieur Diron in 1719. (Cf. Thomassy, p. 212.)
- A. D. 1733.
The map in *Some Account of the Design of the Trustees for establishing the Colony of Georgia in America*. It shows the Atlantic Colonies stretching to the Mississippi River.
- A. D. 1737.
Le Cours du fleuve Mississippi, 1737, in Bernard's *Recueil de Voyages au Nord*, Amsterdam, 1737, in connection with Hennepin's narrative.
- A. D. 1740.
A map by Dumont de Montigny, *Carte de la province de la Louisiane, autrefois le Mississippi*, preserved in the Dépôt de la Marine at Paris, is said by Thomassy (p. 217) to be more valuable for its historical legends than for its geography.
239. A. D. 1741. **Coxe's Carolana.**
After the map in Daniel Coxe's *Carolana*, London, 1741. Kohl calls it the earliest English map of the Mississippi. Kohl thinks possibly Coxe may have had unknown charts of the delta. He accepts Lahontan's Long River. See *ante*, under A. D. 1722.
- A. D. 1743.
Nicolas Bellin, in Charlevoix's *Nouvelle France*, gives a *Carte de la Louisiane, cours du Mississippi et pays voisins*; and this, with the other maps, is reproduced in Shea's translation of Charlevoix.
Bellin's *Carte des embouchures du fleuve Saint Louis* is based on a draft by Buache (1732), following an original MS. (1731) preserved in the Archives Scientifiques de la Marine. (See *post*, under A. D. 1750.)
240. A. D. 1749. **Bonnecamps' Ohio River.**
After a map in the Ministry of the Marine at Paris, called *Carte d'un voyage, fait dans la Belle Rivière en la Nouvelle France, 1749, par le révérend Père Bonnecamps, Jésuite Mathématicien*. He has marked eight points where he took observations for the latitude, and sundry other places where he buried inscribed lead plates in token of possession for the king.
It also shows the Alleghany River from Lake Chataqua.
- A. D. 1750.
Bellin also has a map of this date, called *Carte de la Louisiane et des pays voisins*. It is said that the maps first published by Bellin were not thought by the French government sufficiently favorable to their claims for boundaries on the English colonies, and he accordingly reissued the maps with changes. When Governor Shirley, speaking with Bellin, referred to this, Bellin is said to have replied, "We in France must obey the king's commands." His map marking these bounds is reproduced in Bonnechese's *Montcalm et le Canada français*, 5th ed., Paris, 1882. (See *ante*, under A. D. 1743.)
- A. D. 1753.
Carte de la Louisiane, in Dumont's *Mémoires historiques de la Louisiane*, vol. i.
- A. D. 1755.
Bellin's *Carte de la Louisiane, 1750; sur de nouvelles observations on a corrigé les lacs et leurs environs*, 1755.
- A. D. 1755.
Canada et Louisiane par le Sieur le Rouge, ingénieur géographe du Roi, with a small map of the Mississippi River.

— A. D. 1755.

D'Anville's *Canada, Louisiane et les terres anglaises*.

— A. D. 1755.

Robert de Vaugondy's *Partie de l'Amérique septentrionale qui comprend le cours de l'Ohio*, etc.

— A. D. 1755.

A New and Accurate Map of North America, contained in John Huske's *Present State of North America*, 2d ed., London, 1755.

— A. D. 1755.

John Mitchell's *Map of the British Colonies in North America*, engraved by Kitchen, published in London, in 1755. Re-engraved at Amsterdam as a *Map of the British and French Dominions in North America*.

— A. D. 1757.

Carte de la Louisiane par l'auteur, 1757 in Le Page du Pratz's *Histoire de la Louisiane*, vol. i. 138.

— A. D. 1760.

Thomas Jefferys included a map of Canada and the northern parts of Louisiana in his *Natural and Civil History of the French Dominion in North and South America*. This same map, with the date 1762, was used in his *Topography of North America and the West Indies*. London, 1768.

— A. D. 1760.

Janvier's *L'Amérique*. It extends from Louisiana to the Pacific.

— A. D. 1762.

Jefferys' *Map of Canada and New France*. There is a facsimile in Mills's *Boundaries of Ontario*.

— A. D. 1764.

La Louisiane in Bellin's *Le Petit Atlas Maritime*, vol. i. no. 40, and *The Mouths of the Mississippi* in nos. 43 and 44.

241. A. D. 1767. **Carver's Upper Mississippi.**

This follows the map in Jonathan Carver's *Travels*.

— A. D. 1768.

The mouths of the Mississippi and neighboring coasts by Jefferys, in his *General Topography of North America and the West Indies*, which, he says, was taken from several Spanish and French drawings, compared with D'Anville's map of 1752, and with P. Laval's *Voyage à Louisiane*.

242. A. D. 1795. **The Upper Missouri and Mississippi by Soudard.**

The original is preserved in the Dépôt de la Marine in Paris. It was made for Colonel De Bouligny, of the Sixth Regiment of Louisiana, and taken to France in 1804 by M. Laussat.

243. A. D. 1801. **An Indian Map of the Upper Missouri and its Affluents.**

The original of this is preserved in the Archives of the Hudson Bay Company in London. Drawn by a Blackfoot chief in 1801, and taken to London by Peter Fidler. The range of the Rocky Mountains is marked, eleven of their peaks named, and the Pacific seacoast is drawn.

244. A. D. 1854. **The Sources of the Mississippi River.**

This is Schoolcraft's map given in his *Narrative*.

VIII.

THE GULF OF MEXICO AND WEST INDIA ISLANDS, WITH ADJACENT LANDS.

*. * There are notices of maps of the mouths of the Mississippi in Section VII.; and the gulf appears in the maps of Sections II. and III.

245. A. D. 1463. **Antilia by Benincasa.**

This represents an early notion of land to the westward, the antetype of the Antilles. The chart is from a portolano, described in Santarem's *Ilist. de la Cosmographie*, i. p. xlii; iii. p. 177. Cf. *ante*, under no. 21, where this map might have been entered, if it had been found in season.

246. A. D. 1500. **La Cosa's map.**

The western part of the La Cosa chart. Kohl has copied the drawing of it in Ramon de la Sagra's *Cuba* (Paris, 1837). See *ante*, no. 26, and the whole series of maps enumerated in section ii., for the form the gulf took in the earliest cartography, whether as a supposed Gulf of Ganges, as it is conjectured to be in the Admiral's (*ante*, no. 32) and other maps; or as undeveloped in the Cantino (1502), Ruysch (1508), Sylvanus (1511), and Waldseemüller (1513) maps; as vaguely shut in at the north by a land Bimini, shown in the Peter Martyr map of 1511, and in the Weimar map of the Pacific, of 1518 (*post*, no. 316); as an unenclosed archipelago, of which we have instances in the Lenox globe, and in the so-called Da Vinci mappemonde. It gets something like definite though distorted shape in the Stolnicza and Reisch maps, and in the Tross gores. Then in the Nordenskiöld gores, in the Schöner globes of 1515 and 1520, and in the Apian co-diform map of 1520, we have the same distorted shape, but joined with a westerly passage, which detaches South America as an island.

247. A. D. 1520. **The Gulf of Mexico.**

The map published by Navarrete in his *Coleccion*, iii., is reproduced in the *Nar. and Crit. Hist. Amer.*, ii. p. 218, and in Weise's *Discoveries of America*, p. 278.

This is the earliest special map of the gulf, and the first to delineate it with approximate accuracy; and bears the title, *Traza de Costas de Tierra-firme y las tierras nuevas*.

Cf. the map of Ayllon's explorations, sketched in the *Nar. and Crit. Hist. America*, ii. p. 285.

248. A. D. 1524. **Gulf of Mexico. (Cortes.)**

The original engraving of this chart appeared in a letter of Cortes, addressed to the emperor, and

printed at Nuremberg in 1524. Kohl thinks it shows the explorations of Garay, and does not embody any of those of Cortes himself. He says it is the earliest map to show the name Florida. It may have been made about the time of no. 247. It is reproduced in Stevens' *Amer. Bibliographer*, p. 86; in his *Notes*, etc., pl. iv.; and in the *Nar. and Crit. Hist. America*, ii. p. 404. It has an uncertain passage to the west, by which Yucatan is made an island, of which there is an indication in no. 247, and unmistakable expression in the Maiollo map of 1527 (*ante*, under no. 39), and is suggested in a map by Friess (*post*, no. 371). Later maps, like the Verrazano, 1529 (*ante*, under no. 42); Ribero, 1529 (*ante*, no. 41); the Lenox wood-cut, 1534 (*ante*, no. 47, since reproduced in the *Nar. and Crit. Hist. America*, ii. p. 223); the British Museum map of 1536 (*post*, no. 251), make Yucatan insular, but do not carry the passage to the western sea.

249. A. D. 1528. The Antilles.

Six separate maps of Jamaïqua, Cuba, Spagnola, Guadalupe, Dominica, and Matinina, from the *Isolario* of Bordone. Kohl follows a facsimile made for Henry Stevens (see *post*, no. 372).

— A. D. 1529.

A section of Ribero's map (*ante*, no. 41), showing the gulf, etc., is given in the *Nar. and Crit. Hist. America*, ii. p. 221.

250. A. D. 1534. Hispaniola.

From the engraved map in the 1534 edition (combined) of Peter Martyr and Oviedo. Kohl follows a facsimile given in Stevens' *Amer. Bibliographer*. See no. 256.

251. A. D. 1536. Gulf of Mexico.

From a large MS. map in the British Museum. Kohl says the language of the map is partly French and partly Spanish, the latter much corrupted; so that he infers it to be a French copy of a Spanish original. He thinks it may have grown out of the expedition of Narvaez, and says that the peninsula of Florida is for the first time drawn with approximate accuracy. Yucatan is an island. It is sketched in the *Nar. and Crit. Hist. America*, ii. p. 225.

252. A. D. 1542. The Antilles, by Rotz.

One of the maps in Rotz's *Boke of Idrography*, in the British Museum. The map is sketched in the *Nar. and Crit. Hist. America*, ii. p. 226. It is called "The Indis occident, quilaz the Spaniards doeth occupy." The latitudes are too high by about three degrees in the northern parts, and too low by about two degrees in the southern parts; making the distance from Trinidad to Florida much in excess of what it should be. (See *ante*, no. 55.)

— A. D. 1540-50.

Within this period may be placed the map, *Carta de las Antillas*, of which a facsimile is given in the *Cartas de Indias*, published by the Spanish government in 1877.

The map mentioned by HARRISSE in his *Cabots*, p. 185.

The so-called *Atlas de Philippe II.* (cf. *Nar. and Crit. Hist. of America*, ii. 222). See *ante*, under no. 52.

The 1541 Mercator gores (*Nar. and Crit. Hist. America*, ii. p. 177).

— A. D. 1544.

The gulf and neighboring portions of the Cabot mappemonde of 1544, are sketched in the *Nar. and Crit. Hist. America*, ii. pp. 227, 447.

253. A. D. 1547. Spanish America, by Nio Vallard.

This shows the coast of both oceans, from 35° N. to 10° S. latitude. It is from the MS. atlas in the Sir Thomas Phillipps Collection. Kohl conjectures that the Spanish drafts, apparently used in the making of this map, may have been those brought from the peninsula in 1542 by Don Miguel de Sylva.

Cf. the sketch from a MS. atlas in the Bodleian, given in the *Nar. and Crit. Hist. America*, ii. p. 292.

254. A. D. 1547. The same.

An inaccurate draft.

255. A. D. 1555(?). The Mexican Gulf.

This is a French map, and shows the Atlantic coast, from Maine to Honduras. The corresponding Pacific coast from about the latitude of Mexico (City), is a mere north-and-south line, with conventional river-mouths. Kohl says the original was discovered by Jomard in the possession of a French noble family. To judge from the absence of California one would place the map before (say) 1535; and the absence of traces of De Soto's and other explorations on the Atlantic side would indicate as early a date; but Kohl places it under "about 1555," as that was Jomard's opinion. Kohl is in error in supposing that the presence of Bermuda on the map establishes the date after 1530; since Bermuda is on the Peter Martyr map of 1511, a map unknown to Kohl. It is sketched in the *Nar. and Crit. Hist. America*, ii. p. 224.

256. A. D. 1556. Hispaniola. (Rare usio.)

From the engraved map in Ramusio, iii. (1556), who does not say whence he got it. It is reproduced in the *Nar. and Crit. Hist. America*, ii. p. 188, and seems to follow no. 250.

257. A. D. 1558. Spanish America by Diego Homem.

It shows the coasts of both oceans north of the Isthmus of Panama to 33° north latitude. A MS. map in colors in the British Museum. Kohl calls it the earliest general map to embody the California Peninsula. The "Rio del Spirito Santo" (Mississippi) has one main channel. It is sketched in the *Nar. and Crit. Hist. of America*, ii. p. 229.

258. A. D. 1564. Hispaniola by P. Forlano.

The engraved original is marked "In Venetia Paulo Forlano Veronese fec. 1564." It is not so accurate in form as the map of 1534; and it is not known whence Forlano drew his notions. (See *ante*, under no. 69.)

259. A. D. 1564. Cuba by Forlano.

Kohl calls this the oldest special map of Cuba which he had found. He finds names here which are preserved in the Hondius map of Cuba (1607). (See *ante*, under no. 69.)

— A. D. 1566-72.

The maps of Zaltiere (*ante*, no. 94) and Porcacchi (*ante*, no. 95) show how distorted a shape the gulf could assume even at so late a day as this. Cf. *Nar. and Crit. Hist. America*, ii. pp. 451, 453.

260. A. D. 1578. The Antilles by Martines.

It shows the Atlantic coast from 45° north to 3° south latitude. From the Martines Atlas of 1578 in the British Museum. The latitudes are approximately correct; but the longitudes are much out of the way, being stretched east and west too far. It is sketched in the *Nar. and Crit. Hist. America*, ii. p. 229.

261-262. A. D. 1597. Central America by Wytfliet.

This is from Wytfliet's Continuation of Ptolemy. See Winsor's *Bibliography of Ptolemy*.

— A. D. 1597.

The *Castilia del Oro* of Wytfliet is given in facsimile in the *Nar. and Crit. Hist. America*, ii. p. 190.

263. A. D. 1597. Mexico by Wytfliet.

From Wytfliet's Continuation of Ptolemy.

264. A. D. 1597. Florida et Apalache of Wytfliet.

From Wytfliet's Continuation of Ptolemy. It is given in facsimile in the *Nar. and Crit. Hist. America*, ii. p. 281.

— A. D. 1597.

Wytfliet's map of Cuba is given in facsimile in the *Nar. and Crit. Hist. of America*, ii. p. 230.

265. A. D. 1601. Mexico and Yucatan by Herrera.

From Herrera's *Descripcion de las Indias* (Madrid, 1601). The map closely agrees with the text of the same book, except that in the map he calls the City of Mexico 91° west long. [from Ferro?], and in the text he gives it as 103° from Toledo.

A portion of it is reproduced in the *Nar. and Crit. Hist. America*, ii. p. 392.

266. A. D. 1601. Antilles by Herrera.

A map which appeared in Herrera's *Descripcion de las Indias*, and considered by Kohl to be the best general map of the West Indies produced up to that time. They are called "Yslas de la mar del Norte."

267. A. D. 1630. Florida by Dudley.

Kohl takes this from Dudley's MSS. preserved in the Munich library, and not from Dudley's *Arcano del Mare*, as published in 1646.

— A. D. 1651.

Maps of New Spain, Cuba, and Hispaniola, in Jansson's *Minor Atlas*, ii. 393, 397.

268. A. D. 1671. Jamaica by Blome.

This is from Blome's *Present State of his Majesty's Isles and Territories in America*, London, 1687. It purports to follow surveys made by order of Sir Thomas Medford, Bart., late governor of the island.

269. A. D. 1712. Pacific Coast of Mexico.

It covers the space 8° to 17° north latitude. The original was engraved by John Senex, and published in London, after a Spanish map said to have been captured by an English rover, Capt. Woodes Rogers. The engraved map appeared in Capt. Rogers's *A Cruising Voyage around the World*, 1708-11, London, 1712. The Spanish draft may have been made, as Kohl thinks, about 1700. See *post*, under no. 289.

270. A. D. 1767. Northern Mexico by Alzate.

This follows a MS. map in the British Museum, which professed to be drafted by José Antonio Alzate y Ramirez, after the best printed and MS. authorities. It shows the explorations of Father Kino about the Colorado and its affluents, and gives the northern extremity only of the Gulf of California. At the top of the map, under 43°, it shows the "Mar o Bahía del Vest," which Juan de Fuca explored. (See *post*, no. 289.)

271. A. D. 1778. New Mexico by Escalante.

A folded sheet, without annotations.

271^a. A. D. 1795. New Mexico by Juan Lopez.

From a Spanish printed map.

272. A. D. 1852. Anegada by Schomburgk.
(Virgin Islands.)

This follows surveys made by Sir Robert Schomburgk, published in the *Journal of the Royal Geographical Society*, ii. p. 152 (1852).

273. A. D. 1833. The Usumasinta River in Central America.

An engraved map in the Royal Geographical Society's *Journal*, iii. 59 (1833), prepared by Col. Galindo.

274. A. D. 1836. Costa Rica by Col. Galindo.

From the *Journal of the Royal Geog. Society*, vol. vi. (1836).

275. A. D. 1844. River Tabasco by Peter Masters.

From the *Journal of the Royal Geog. Society*, vol. xv. (1845).

276. A. D. 1853. Samana.

The Peninsula and Bay of Samana in the Dominican Republic, by Sir Robert H. Schomburgk, in the *Journal of the Royal Geog. Society*, 1853.

IX.

THE PACIFIC COAST OF NORTH AMERICA.

*. See *ante*, sections ii. and iii., and *post*, section x.

— A. D. 1513, etc.

Dr. Kohl printed an abstract of his studies on the cartography of the west coast of North America in the *U. S. Coast Survey Report*, 1855, p. 374, etc.; and there is a MS. on the subject by him in the library of the American Antiquarian Society at Worcester. The fullest information on the subject will be found in H. H. Bancroft's *North West Coast*, vol. i., and in the *Nar. and Crit. Hist. America*, ii. p. 431, etc.

We find the earliest delineations of this coast in 1513 from two sources, — first, from the Portuguese in their efforts to place the Moluccas in relations with the new continent, as shown in (*post*) nos. 315 and 316; and, second, from the maps which show the discovery of Balboa, either honestly recorded as in the Verrazano map of 1524 (*ante*, under no. 42), the Maiollo (1527, under no. 39), the so-called Ferdinand Columbus (1527, *ante*, no. 38) and Ribero maps (1529, *ante*, no. 41); or conjecturally extended as in Schöner's globes of 1515 and 1520 (*ante*, nos. 34, 35), the Apian mappemonde of 1520 (no. 36), the Thorne map of 1527 (no. 39), the Münster map of 1532 (under no. 46); or purposely left doubtful as in the map of Reisch's *Margarita philosophica*, 1515 (*ante*, no. 33), the Tross gores (under no. 32), and others.

— A. D. 1526.

The map of the monk Franciscus, making South America an island, identifies North America with Asia, and substitutes the southern coast of Asia for the west coast of North America. (Lelewel, *Géog. du Moyen Âge*, pl. xli.)

— A. D. 1530 (?)

The map in the Sloane MSS. (British Museum), illustrating the Asiatic theory of North America. (*Ante*, no. 43.)

The Turin atlas described in the *Jahresbericht des Vereins für Erdkunde in Dresden*, 1870, which leaves the northern extension of the coast uncertain. (*Ante*, no. 51.)

— A. D. 1532.

The cordiform map of Orontius Finæus, showing the Asiatic theory of North America. (*Ante*, no. 46.)

— A. D. 1532-40.

The map in Kunstmann, which does not go north of the California peninsula.

— A. D. 1534.

The Lenox wood-cut (*ante*, no. 47) does not go north beyond the limits of Central America.

— A. D. 1534-50.

The Italian mappemonde given in the *Jahresbericht des Vereins für Erdkunde in Leipzig*, 1871, which shows the coast as high as California.

— A. D. 1535.

Cortes' map of the coasts about the entrance of the Gulf of California, bought by the Rev. E. E.

Hale in 1883 from the Spanish Archives, of which there is a heliotype in the *Nar. and Crit. Hist. America*, ii. p. 442.

— A. D. 1536.

The Agnese mappemonde, which shows the Central America and Mexican coasts. (*Ante*, no. 52.)

A MS. mappemonde in the British Museum, which extends the coast northward to California. (*Ante*, no. 52.)

— A. D. 1538.

A map in the Basle edition of Solinus and Pomponius Mela, which represents the western coast of America indefinitely as "terra incognita."

— A. D. 1539.

Plate xiii. in the Portolano of Charles V. (*ante*, under no. 52), which shows the Central America coast.

Plates iv. and xiv. of the same, which extend the coast above the peninsula of California.

— A. D. 1540 (?)

Honem's mappemonde, which extends the coast northward to the California peninsula. (*Ante*, no. 60.)

— A. D. 1540-50.

The Nancy Globe (*ante*, no. 61), which follows the Asiatic theory.

— A. D. 1540.

Münster's map in the Ptolemy of 1540, which conjecturally disjoins North America from Asia. (*Ante*, under no. 52.)

Apian's map in his *Cosmographia* shows a similar but distorted separation. (See *ante*, no. 62.) It was repeated in the Antwerp edition of 1545, and in the Paris edition of 1551. (See *ante*, no. 62.)

— A. D. 1541.

Mercator's map in gores, giving a conjectural western limit to North America. (*Ante*, under no. 53.)

— A. D. 1540-50.

An Italian portolano, now in the Carter-Brown collection, and noted in Quaritch's *Catal. of Hist. and Geography*, 1885, no. 362, under 28,159, which contains five maps showing the west coast of North America, as a part of the western hemisphere, viz.:

No. vii., which resembles a map in an Atlas in the Biblioteca Riccardiana (*Jahresbericht des Vereins für Erdkunde in Dresden*, 1870, pl. vi.), shows the Asiatic theory.

No. ix. brings out the California peninsula, but goes no farther north.

No. xi. is in gores, adheres to the Asiatic theory, and resembles pl. ix. of the *Jahresbericht*, etc.

No. xxvii. is confined to the Central America coast.

No. xxix. goes north to the peninsula of California.

277. A. D. 1541. Castillo's California.

The map published by Bishop Lorenzana in his *Nueva España* (1770), who found it among the archives of the descendants of Cortes. Domingo del Castillo was a pilot in the fleet of Alarcon, who explored the coast in 1540, and penetrated to the

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head of the gulf of California and discovered the Colorado river. A large part of his coast names are not to be found in the accounts of Alarcon's expedition, nor in those of the explorations of Ulloa (1539).

Kohl speaks of this map of California as the earliest known; but he was not informed respecting the map mentioned above under A. D. 1535.

Castillo's map is given in facsimile in the *Nar. and Crit. Hist. America*, ii. p. 444; and is sketched in H. H. Pancroft's *Cent. America*, i. 153, and *North Mexican States*, i. 81. He gives the coast a greater extension beyond the peninsula than it has in the original.

— A. D. 1542.

The map in Rotz's *Idrography* shows the Central America coast. (*Ante*, no. 55.) See also the Ulpius globe under the same number.

— A. D. 1543.

The Gotha map of Baptista Agnese shows the Central America and Mexican coasts. (*Ante*, no. 56.)

— A. D. 1544.

The Cabot mappemonde carries the coast north only so far as the peninsula of California. (See under no. 56.) Cf. sketches in *Nar. and Crit. Hist. America*, ii. pp. 227, 447.

— A. D. 1545.

A conjectural coast, called "Temistitan," given in the mappemonde of Münster in his edition of P. J. emy. (*Ante*, no. 57.)

The map in Medina's *Arte de Navegar* shows only the Central America coast. It is repeated in the 1549 edition, *Libro*, etc. (*Ante*, no. 59.)

Cf. the mappemonde, said to be on Mercator's projection (?), put between 1545 and 1558, which is described in F. S. Ellis's *Catal.* 1884, no. 174.

278. A. D. 1546. Upper California by Juan Freire.

Part of a Portuguese portolano, which was in Santarem's possession when Kohl copied this portion and no. 279, its complement. The language is partly Latin, partly Spanish, but mainly a corrupt Portuguese. The drafts used by Freire were evidently, as Kohl thinks, those of Ulloa and Alarcon, though he must have had other material. He does not give any names corresponding to the accounts of the explorations of Cabrillo and Ferrero (1542-43). The coast is given a westerly trend, as if to connect it with Asia. Kohl judges that Freire had some drafts of a voyager who sailed westward, and at intervals lost sight of the coast.

279. A. D. 1546. Lower California by Juan Freire.

From the same map as no. 278. A legend on the map in two places credits Cortes with the discovery of this coast. Freire seems to have used Castillo's chart and the reports of Ulloa and Alarcon. See *Nar. and Crit. Hist. America*, ii. p. 448.

— A. D. 1548.

Gastaldi's map, numbered 59 in the edition of Ptolemy of this year, which follows the Asiatic theory; and the "Carta Marina" in the same. (See *ante*, under no. 58; and *Nar. and Crit. Hist. America*, ii. 435.)

An atlas of about this time in the Biblioteca Riccardiana at Florence is described in the *Jahresbericht des Vereins für Erdkunde in Dresden*, 1870, which has several maps showing the west coast of North America. The maps in Tab. vii. and ix. carry the coast north to the peninsula of California, and one of those in Tab. ix. carries it a little farther. Two maps in Tab. vi. illustrate the Asiatic theory.

— A. 1554.

The map of Bellerio shows the Central America and Mexican coasts. (*Ante*, no. 64.)

An atlas of Agnese (*ante*, under no. 64) gives maps showing the coast from the peninsula of California south.

— A. D. 1555.

A French map brought forward by Jomard shows a purely conventional west coast. (*Ante*, no. 255.)

— A. D. 1556.

The map in Ramusio extends north to the peninsula of California. (*Ante*, no. 66.)

The map of Vopellio in Girava's *Cosmographia* adheres to the Asiatic theory. (See *ante*, under no. 66.) There is a facsimile of the American part in the *Nar. and Crit. Hist. America*, ii. p. 436. Girava says he used a draft by Vopellio as the basis of the map, which is often wanting in copies of the book, whose value, according as the map is in facsimile or an original, has recently been fixed by Quaritch at £ 3 10 0 and £ 21. The edition of Girava in 1570 is the same, with the preliminary leaves reprinted.

— A. D. 1558.

The map of Homem carries the coast north to the California peninsula. (*Ante*, nos. 67 and 257.)

The map of Martines, placed usually somewhere in this decade (*ante*, no. 63) is one of the earliest to contract the water supposed to separate America from Asia to the dimensions of a strait. It is sketched and described in the *Nar. and Crit. Hist. America*, ii. 450.

— A. D. 1560.

The map of Forlani adheres to the Asiatic theory. (*Ante*, no. 69.) It is sketched in the *Nar. and Crit. Hist. America*, ii. 438.

— A. D. 1561.

A map of Honter illustrating the Asiatic theory. In Ruscelli's edition of Ptolemy (see under no. 69, *ante*), a map of the western hemisphere carries a definite coast line beyond the California peninsula, above which a dotted coast line is marked "littus incognitum." The map of "Nueva Hispania" develops the Gulf of California and adjacent coasts.

— A. D. 1566.

The map of North America by Zaltieri (*ante*, under nos. 69 and 94) shows the narrow strait as given in the Martines map (*ante*, under A. D. 1558). It is given in facsimile in the *Nar. and Crit. Hist. America*, ii. p. 451. The claim of Kohl that it is the earliest to show the straits of Anian compels the putting of a map of Martines later than here judged.

A map of Des Liens (*ante*, under no. 69) gives only the Central America coast.

— A. D. 1568.

The map of Diegus (Homem) turns the coast-line east a little distance above the head of the California peninsula. See *ante*, no. 70; and *Nar. and Crit. Hist. America*, ii. p. 449; iv. p. 92.

— A. D. 1569.

The great map of Mercator (*ante*, under no. 71). It established more effectually the type of the strait of Anian as prefigured by Martines and Zaltieri. It is sketched in the *Nar. and Crit. Hist. America*, ii. p. 452.

— A. D. 1570.

The Ortelius map follows Mercator's. (*Ante*, no. 72, and *post*, no. 324.)

— A. D. 1572.

The Porcacchi map also gives a similar strait of Anian. (*Ante*, under nos. 72 and 95.) It is sketched in the *Nar. and Crit. Hist. America*, ii. p. 453.

— A. D. 1574.

Forlani's map. (See *post*, no. 325.) The map in Gallaeus' *Enchiridion* (*ante*, under no. 72) follows the Mercator type.

— A. D. 1576.

The map in Humphrey Gilbert's *Discourse* (*ante*, no. 74) has a coast little resembling any other map, but gives the strait of Anian.

280. A. D. 1578. California by Martines.

It shows the coast from 10° to 55° north, with "Giapan" and a part of the Asiatic coast. It is from the Martines Atlas in the British Museum, made between 1568 and 1578, at Messina, though Martines seems to have been a Spaniard. The outline of the gulf of California is much less accurate than in earlier maps.

This is a different atlas from the one of 155- (?), mentioned *ante* under A. D. 1558. A sketch of the Central America coast of the 1578 atlas is given in the *Nar. and Crit. Hist. America*, ii. p. 229.

— A. D. 1578.

The map in Best's *Frobisher* is rudely delineated. (*Ante*, no. 78.)

— A. D. 1580.

The map of Dr. Dee (*ante*, no. 96) carries the coast above 40° N. Lat.

— A. D. 1582.

Lok's map leaves the coast uncertain above the peninsula of California. (*Ante*, no. 97.)

The map of Popellinière's *Trois Mondes* is of the Mercator (1569) type.

— A. D. 1587.

The Myritius map follows the Asiatic theory. (*Ante*, no. 79.)

— A. D. 1587.

The Hakluyt-Martyr map carries the coast well up to the Arctic region. (*Ante*, under no. 79.)

281. A. D. 1592. California (Molineaux's Globe).

From the globe in the Middle Temple, London. Sir Francis Drake's track is pricked upon it, and is taken perhaps from Drake's charts, now lost. It shows Drake to have gone as far north as 48°. The general trend of the coast is more northerly than westerly, as on earlier maps. There is a sketch in the *Nar. and Crit. Hist. America*, ii. p. 455.

282. A. D. 1593. Northwest Coast by C. de Judaeis.

A map from Cornelius de Judaeis's *Speculum Orbis Terræ*, 1593, and called "Quiviræ Regnum," which is the name on a protuberance of the coast line in 40° N. lat.; while a larger protuberance in 60° is called "Anian Regnum." Northwest of this last peninsula, under 70°, is a pinnacle-rock, in the sea, which marks the "Polus Magnetis." An inscription in the interior notes that oxen and cows, which have the hump of a camel, and the tail and feet of lions, frequent the woody plain. (*Ante*, no. 98.) A map of the same date in the *Libri* of Maffei. (*Ante*, under no. 83.)

— A. D. 1597.

De Bry's map, giving the conventional view of the time. See enumeration *ante*, under no. 84.

The Arnheim edition of Ptolemy has the following maps showing the west coast of North America:—

No. 2, the western hemisphere, much like the Mercator type.

No. 28, the straits of Anian.

No. 29, a mappemonde, giving the west coast in the conventional manner of the period.

No. 32, the North Pacific, showing an indefinite "Pars Americae."

Nos. 34 and 35, the western hemisphere, with a Pacific coast of the Mercator type.

The map of Porro (*ante*, no. 85) distinguishes this edition from the Cologne edition of Ptolemy of the same year.

Wytfliet's continuation of Ptolemy contains several maps showing the west coast.

No. 1. The western hemisphere shows the straits of Anian. This map is given in facsimile in the *Nar. and Crit. Hist. America*, ii. p. 459.

No. 13. "Granata nova et California" develops the region of the California peninsula, and a facsimile of the map of the gulf is given in the *Nar. and Crit. Hist. America*, ii. 458.

No. 14. "Quivira et Anian," showing the region from Cape Blanco north.

— A. D. 1598.

The mappemondes in Wolfe's Linschoten and in Münster's *Cosmographia* of the current type for the west coast of North America. (Cf. *ante*, under nos. 84 and 86.)

The Italian Ortelius, published at Brescia, gives a map of the current type for this coast, and one which clings to the Asiatic theory, being about the last instance of such views.

— A. D. 1600.

The map in the *America* of Metellus has the Wytfliet type. (*Ante*, under no. 87.)

— A. D. 1601.

The maps of Herrera and Quadus. (*Ante*, nos. 88 and 99.)

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283. A. D. 1602. The California Coast after Viscaino.

The coast from Cape Mendocino to Cape St. Lucas. It is composed from the 32 charts of the coast which Viscaino made, and which were deposited in the Spanish Archives, when the editors of the voyage of the Spanish vessels, "Sutil" and "Mexicana," brought the present sketch to light, basing it on those lesser charts.

Cf. sketch in *Nar. and Crit. Hist. America*, iii. p. 75; and reproduction in *Atlas para el Viage de las goletas Sutil y Mexicana* (1802), by Dionysio Alcalá-Galiano.

284. A. D. 1602. The same.

A less perfect sketch.

— A. D. 1603.

The maps in Botero's *Relaciones*,—one of the world, the other of the western hemisphere,—are of the Mercator type. The Italian edition was in 1595. (See *ante*, under no. 84.)

— A. D. 1604.

Buache engraved in 1754 a Spanish map of 1604, made at Florence by Mathieu Neron Pecciolen, which shows the gulf of California and adjacent coasts. It is also in the *Encyclopédie* published at Paris in 1777 (supplement).

— A. D. 1606.

The map in Céspedes' *Regimiento de navegacion* leaves the northwest coast partially indeterminate. (*Ante*, no. 89.)

— A. D. 1613.

The map illustrating the narrative of Ferdinand de Quir in the *Detectio Freti* of Hudson, edited by H. Geritsz, gives an unusual width to the straits of Anian.

The Mercator-Hondius atlas contains a map of the world, another of America, both by Hondius, and one of America by Michael Mercator. They all show the straits of Anian, but the protuberant coast of America has no marked feature except the gulf of California. Similar features mark the map of Hondius, which he based on the results of the voyages of Drake and Cavendish (*ante*, no. 91), and the map of Oliva (*ante*, no. 90).

— A. D. 1622.

The map in Kasper van Baerle's edition of Herrera is thought to be the earliest to return to the original belief that the peninsula of California was an island. The history of this latter belief is traced in the *Nar. and Crit. Hist. America*, ii. 461, etc. The same 1622 edition of Herrera at the same time repeats the map from the original edition of 1601, which presents the peninsular form for California.

— A. D. 1625.

The map accompanying the treatise by Briggs in Purchas's *Pilgrimes* (*ante*, no. 100). It is sketched in H. H. Bancroft's *North Mexican States*, i. 169. It makes California an island. Cf. H. H. Bancroft's *Northwest Coast*, i. 103, 104.

— A. D. 1626.

The map in John Speed's *Prospect* makes California an island, and carries the main coast above it by a dotted line.

— A. D. 1630.

The map in De Laet's *Nieuwe Wereldt*. (*Ante*, no. 92.)

285. A. D. 1630. Northwest Coast by Dudley.

From Dudley's *Arcano del Mare*, 1630. Kohl judges from the original MS. draft of this map preserved in Munich, in which the latest date mentioned is 1621, that Dudley made this map but a few years later. Dudley seems not to have been aware of Viscaino's drafts. His inscriptions credit the discovery of the coast, which he calls "Regno di Quivira," to Sir Francis Drake in 1579. He shows "Asia" on the west edge of the map, as "La grand isla di Jezo," and his notes at Munich say that Dudley got his knowledge of that region from the Jesuits in Japan. See facsimile in *Nar. and Crit. Hist. America*, ii. p. 465. This is plate no. xxxiii. Plates xxxi. and xxxii. represent California as a peninsula. In his Liber ii. (p. 19), a map of "Nuova Albione" extends from a vague "golfo profondo" (with an "I. de Cedros" at its entrance) to Cape Mendocino.

Kohl gives 1630 as the date of the *Arcano*, but no earlier edition than 1646 has come under my observation; though the book in a smaller shape and of that earlier date is said to exist.

286. A. D. 1630. Gulf of California by Dudley.

This is, as Kohl says, from the MSS. of Dudley at Munich, and not from his *Arcano del Mare*. The names are mostly Italian, but a few are in Spanish. He represents California as a peninsula. It does not appear whence he got his views.

— A. D. 1635.

The Salstonsall English edition of the Hondius-Mercator atlas has a map of America, which is a reduction from the map in the 1613 edition of the atlas.

— A. D. 1636.

The Hexham English edition of the Hondius-Mercator atlas has two maps showing the west coast of North America. In both California is an island; in one there is, and in the other there is not, a break in the main coast line opposite the head of the island.

— A. D. 1637.

A map in *Le Monde* of D'Avity, sketched in H. H. Bancroft's *Northwest Coast*, i. 108.

— A. D. 1640.

The alleged explorations of Bartolomé de Fonte at this time gave rise, after the publication of the story in 1708, to various conjectural maps of the west coast of North America, prominent among which are the renderings of Delisle and Buache, 1752-53, and the map of Jefferys.

The indications of this venturesome cartography are noted in H. H. Bancroft's *Northwest Coast*, vol. i., and in the *Nar. and Crit. Hist. America*, ii. p. 462, 463. See *post*, under A. D. 1752-53.

— A. D. 1646.

Dudley's *Arcano del Mare*. See *ante*, nos. 285, 286.

The two maps of Petrus Kœrius (1646) in Speed's *Prospect of the most Famous Parts of the World* (London, 1668), show the geographical confusion of the time. In one California is an island, with a fixed coast above, to the straits of Anian; in the other, California is a peninsula, and there are alternative coasts north of it, in half-shading.

— A. D. 1651.

A map in Jansson's *Atlas Minor* makes California a peninsula, indicates north of it a doubtful passage to the north sea, and further west delineates the "Fretum Anian."

A map in Speed's *Prospect* (edition of 1676) makes Cape Mendocino the northern point of California island, with a break in the coast of the main land opposite, while another Cape Mendocino is drawn still further north.

A map of Virginia by Virginia Farrer (facsimile in *Nar. and Crit. Hist. America*, iii. 465) makes the coast of New Albion (Drake's) lie at the base of the western slope of the Alleghanies, narrowing the continent to a few days' journey.

— A. D. 1652.

Maps of the same cartographer, called in one N. I. Visscher and in the other N. I. Piscator, make California a peninsula, and indicate the straits of Anian.

— A. D. 1655.

Wright in his *Certain Errors in Navigation* has an insular California.

287. A. D. 1656. Sanson's California.

California is shown as an island, a view, as Kohl thinks, introduced by Purchas (*ante*, under A. D. 1625; but see under A. D. 1622) in the map which he gives as found among some Spanish charts captured by the Hollanders. The country inland is called "Nueva Mexico" in the north, and "Nueva Granada" in the south. The "Rio del Norte," on which Santa Fé is placed, runs into the gulf of California; and this river continued to have this course given to it till Coronelli, as Kohl says, directed it to the gulf of Mexico. The map is reproduced in the supplement of the French *Encyclopédie* for 1777.

Sanson repeated his draft in 1657, making the main coast end with "Aguhela de Cato;" and in his *L'Amérique* (1657-83) he puts a "Terre de Jesso" northwest of the insular California.

— A. D. 1659.

The map in the *Hist. of the World* by Petavius (Petavius) gives an insular California and the usual break in the main coast opposite its northern extremity.

— A. D. 1661.

In Van Loon's sea-atlas the map "Nova Granada en l'Eylant California" gives a strait of Anian a little higher up than the island, and puts a "Terra incognita" beyond it.

— A. D. 1663.

The map "Ameriæ nova descriptio" in Heylin's *Cosmographie* (1669, 1674, 1677) carries above a point

opposite the head of the island of California a dotted line, which, farther above, branches in three conjectural directions.

— A. D. 1670-71.

Blome follows Sanson. In Montanus and Ogilby, California is an island (*ante*, section vi., A. D. 1670-73). Ogilby's map is sketched in H. H. Baneroff's *Northwest Coast*, i. 110.

— A. D. 1683-1704.

Hennepin sometimes makes California an island, sometimes a peninsula. Blaeu about this time had the same hesitancy.

288. A. D. 1683-? New Mexico by Coronelli.

An imperfect draft, without Kohl's annotations. It represents California as an island. The "Rio del Norte" becomes the "Rio Bravo," and flows to the Mexican gulf.

Coronelli's globe of 1683 makes California an island.

— A. D. 1684.

Franquelin's great map shows only a part of California, but he marks it as an island. (*Ante*, section iii., A. D. 1681-84.)

— A. D. 1694.

Jaillot has California an island, with "Terra de Jesso" northwest of it. (*Post*, no. 328.)

— A. D. 1695.

A map of Guillaume Delisle represents a "Mer de l'Ouest" lying on the parallel from Cape Mendocino to Lake Superior, but he gives it no defined connection with the Pacific, while the straits of Anian are delineated with coast lines extended but a short distance on either side. This map was published by the younger Delisle in 1752.

About the close of the century Covens and Mortier of Amsterdam published what are known as the Carolus Allard atlases. One of these represents California as an island, and a "Terra Esonis" north of it, with a strait at either extremity, — that on the west separating it from "Yedso," apparently a part of the Asiatic coast.

— A. D. 1698.

Edward Wells in his *New Sett of Maps* gives the island of California with a "supposed straits of Anian" just north of its upper end, but he omits all coast lines above it.

— A. D. 1700.

Delisle makes California a problematical peninsula.

289. A. D. 1701. Gulf of California by Father Kino.

Shows the results of the explorations of Father Kino, — a German, whose name was changed by the Mexicans to Kino, as Kohl says, — instigated by the Jesuit Salvatierra. The map shows the convictions of Kino, that California was a peninsula, rather than a demonstration from his own explorations. He published his map originally in the *Lettres Édifiantes*, vol. v. (1705), and it is called "Passage par terre à la Californie. Decouvert

par le Rev. Père E. F. Kino, Jesuite, depuis 1698 jusqu'à 1701."

See Father Kino's explorations indicated in the map of Alzate. (*Ante*, no. 270.)

Kino's map was re-engraved by Buache in Paris (1754), by Sayer in a map of North America published in London, in the supplement of the French *Encyclopédie* (1777), by Marcou in *Report of the Chief of Engineers, U. S. A.* (1878), and in H. H. Bancroft's *North Mexican States*, i. 499. Cf. *Nur. and Crit. Hist. America*, ii. p. 467.

— A. D. 1705.

The map in Harris's *Collection of Voyages*, reproduced in H. H. Bancroft's *Northwest Coast*, i. 114. California is an island.

— A. D. 1707.

Vander Aa's map is sketched in H. H. Bancroft's *Northwest Coast*, i. 115.

— A. D. 1712.

A Spanish map of the Pacific coast of Mexico is described, *ante*, no. 269.

— A. D. 1715-1717.

Delisle varied in his drafts of California, being undecided on the evidence; and in the latter year, while he made it a peninsula, he cut the coast line north of it by a great gulf, "Mer de l'Ouest," extending inland indefinitely.

— A. D. 1719.

Homann of Nuremberg made an insular California, with an entrance to a supposed gulf opposite with an island in the middle of the passage.

— A. D. 1720.

The *Atlas geographicus* of Seutter, Augsburg, retains the Californian island, separated by a passage, "Fretum Anian hic esse creditur," from "Terra Essonis."

— A. D. 1726.

The map in Shelvocke's *Voyages* professed to represent current opinion in making California an island. Similar maps about this time were issued by Vander Aa of Amsterdam.

— A. D. 1727.

Herman Moll, the English geographer, gives the island and the straits north of it, with no coast line beyond.

— A. D. 1728.

The map in Herrera, making California a peninsula, carries the coast up to Cape Mendocino.

290. A. D. 1740. The California Coast.

A map of the North Pacific was found by Anson in 1742, on board a Spanish ship captured by him on the China coast. It was engraved on a reduced scale in Anson's *Voyage Round the World*, London, 1748. It was next embodied by Jefferys in his map of the North Pacific, and of this the present map is a copy. Jefferys, however, made some additions to the original Spanish map. He says of this proto-

type, that it is scarcely reconcilable with other charts and journals, as to the names and situations of places. The English cartographer also pricks out the tracks across the Pacific of Gaetan (1542), Mendana (1568), Francisco de Gualle (1583), Cavendish, Spilbergen (1616), Fronolat (1709), and of the track each way of the "Nuestra Señora de Cabodonga" (1743), the ship captured by Anson. Jefferys calls the northern parts of the coast the Chinese "Fou-sang," while Kohl believes that debatable region to have been Japan.

— A. D. 1741.

Oldmixon's *British Empire in America* still gave an insular California, with a dotted coast line above, broken by the straits of Anian, — as drafted by Moll.

H. H. Bancroft's *Northwest Coast*, i. 124, gives a Russian chart.

291. A. D. 1743. California.

The map mentioned under no. 290, as engraved in Anson's *Voyages*.

— A. D. 1743.

Bellin's map in Charlevoix makes California a peninsula, with a break in the coast farther north marked "Aguilar." He supposes an interior network of waters connecting Hudson's Bay and Lake Superior with the Pacific, at some point still farther north. Cf. the map in Bonnechese's *Montcalm et le Canada français*, Paris, 1882.

— A. D. 1744.

Map in Arthur Dobb's *Account of Countries Adjoining Hudson's Bay*. The Pacific coast above Cape Blanco is marked as unknown, but a passage called Rankin's Inlet is supposed to connect with Hudson's Bay. There is a sketch in H. H. Bancroft's *Northwest Coast*, i. 123.

292. A. D. 1746. The Gulf of California by Consag.

The Jesuit father, Fernando Consag, explored the eastern coast of the California peninsula, and making the circuit of the north end of the gulf, reached the Colorado river, and proved for the first time by actual observation that California was a peninsula. The present is Consag's map of the gulf, made after his explorations. It is sketched in H. H. Bancroft's *North Mexican States*, i. 463, and his *Northwest Coast*, i. 125, 126.

— A. D. 1746.

A map published by the successors of Homann retains the peninsular California with the entrance above, marked "Aguilar."

Another German map published by Covens and Mortier, *Introduction à la Géographie*, gives an insular California, with a "Detroit d'Anian," supposed to connect, through a "Mer glaciale," with Button's Bay, a part of Hudson's Bay.

— A. D. 1747.

The maps in Bowen's *Geography* give a peninsular California with indications of a strait above Cape Mendocino, but the parts above are marked "undiscovered."

— A. D. 1748.

Bellin connected Lake Superior with the Pacific by a chain of waters.

— A. D. 1750.

Robert de Vaugondy in his *Amérique Septentrionale* makes California a peninsula, and marks a passage above as discovered by Martin d'Aguilar.

— A. D. 1752-53.

Delisle and Buache were making maps of the coast above the peninsula of California, cut up fantastically with passages of one kind and another, connecting the Pacific with the Great Lakes and Hudson's Bay, in vain attempts to reconcile with positive knowledge the accounts of Maldonado, De Fuca and De Fonte. Delisle's map is reproduced in H. H. Bancroft's *Northwest Coast*, i. 128.

The "Mer de l'Ouest," supposed to be an interior sea, reached by passages from the Pacific, figures largely in these maps, and the imaginary draft of it by Buache is reproduced in J. B. Laborde's *Mer du Sud*, Paris, 1791, and in the supplement of the French *Encyclopédie*, 1777. Cf. Dobb's *Northwest Passage* (1754). Other cartographical solutions of this problem will be found in Samuel Engel's *Mémoires sur la situation des pays septentrionaux* (Lausanne, 1765); in his *Extraits raisonnés des Voyages faits dans les parties septentrionales de l'Asie et de l'Amérique* (Lausanne, 1765, 1779); and in William Doyle's *Account of the British Dominions beyond the Atlantic* (London, 1770).

See *post*, nos. 334, 339.

293. A. D. 1753. The Northwest Coast, by T. Jefferys.

From Cape St. Lucas to 60° n. lat. An incomplete sketch. Shows New Albion and the discoveries of Drake. A supposed large island to the west in mid ocean is marked as seen or suspected to exist by Behring in 1728, and Tschirikow in 1741. He gives a river supposed to connect the Pacific with lake Winnipeg.

294. A. D. 1758. Alaska.

Map of discoveries made by Russian vessels, which was published by the Academy at St. Petersburg in 1759, showing the voyage of Behring and Tschirikow. The Aleutian islands are shown as combined to form a supposable broad peninsula. The "Rivière de los Reyes de l'Admiral de Fonte" (1640) is marked "pretenda;" and the inlet held to be found by De Fuca in 1592 is indicated, but not continued inland. The entrance found by d'Aguilar in 1603 is made by dotted lines to connect with the "R. de l'Ouest."

— A. D. 1760.

An entrance to an interior passage in the northwest is given in *L'Amérique par les Srs. Sanson, rectifiée par le Sr. Robert*. It is given in Vander Aa's *Galerie agréable du Monde*, vol. i.

— A. D. 1761.

H. H. Bancroft's *Northwest Coast*, i. 130, gives a Japanese map.

— A. D. 1762.

Jefferys in delineating the northwest coast puts an entrance supposed to have been found in 1592 by Juan de Fuca to the south of "Fousang."

Janvier in the *Atlas Moderne* indulges in all the freaks that Delisle and Buache had made in dealing with the alleged voyages of De Fonte and the others.

— A. D. 1763.

The "Mer de l'Ouest" and other uncertainties are found in the *Carte d'Amérique pour l'usage du Roi en 1722 par Guil. Delisle, augmentée par Phil. Buache*, Paris, 1763.

— A. D. 1767.

Map by Alzate (*ante*, no. 270). A Jesuit map of the peninsula of California in the supplement of the French *Encyclopédie*, 1777.

— A. D. 1768.

Jefferys' map of the De Fonte narrative, given also in the supplement of the French *Encyclopédie* (1777), and in H. H. Bancroft's *Northwest Coast*, i. 131.

— A. D. 1772.

Vaugondy's *Carte de la Californie*, reproduced in the supplement of the French *Encyclopédie* (1777).

— A. D. 1774-1790.

Copies of maps in the Hydrographic Office, Madrid, now in the Department of State, Washington, marked *Viages de los Españoles a la costa noroeste de la America en los años de 1774-1775-1779, 1788 y 1790*.

295. A. D. 1775. Upper California by Maurelli.

The chart of Antonio Morelli, who accompanied an expedition sent out in 1775 by the Viceroy of Mexico. Bodega, who commanded one of the vessels, discovered a harbor just north of San Francisco, and named it after himself. Kohl copies in this a transcript of a chart preserved in the Spanish Archives, which transcript, attested by Navarrete, is in the Department of State at Washington. It purports to be drawn from observations made by Bodega, commander of the "Sonora," and by Maurelli. There are no indications of De Fuca's straits on it.

— A. D. 1775.

A map by Jefferys delineates the coast from New Albion to Mount St. Elias, indicating several openings, but not carrying them inland.

— A. D. 1776.

A map by Jefferys gives a protuberant coast line at the northwest, named "America," the northern part of which he marks "according to the Japanese," while south of that he designates it as land "seen by Spangenberg, 1728." "Alaska" is made an island lying west of it, with Behring's straits separating it from Asia.

See *post*, no. 336.

296. A. D. 1777. San Francisco and Monterey by Junipero Serra.

After a map in the British Museum inscribed: "Plano mappa del viage hecho desde Monterey al gran puerto de S. Francisco . . . P. F. Petrus Fonticet, anno 1777." Supposed, in the pricked track upon the drawing, to represent the journey of Don José Moraza, about the bay of San Francisco, and to record his surveys. Kohl supposes the imperfect

delineation of the Monterey waters to follow earlier surveys.

— A. D. 1778.

The map in Carver's *Travels through the Interior Parts of North America in 1766-1768*, London, 1778. It shows the New Albion coast, with vague indications of the straits of Anian and the Western sea. It is sketched in H. H. Bancroft's *Northwest Coast*, i. 133.

Captain James Cook's map of his explorations on the northwest coast, published in his *Voyage to the Pacific Ocean, 1776-1780*.

297. A. D. 1782. Upper California by Mascaro.

The coast is shown from Cape Mendocino to San Diego. From a MS. Spanish map in the British Museum. The tracks of the expedition by land of Juan Baptista de Ansa and others are noted by pricked lines.

298, 299. A. D. 1782. New Mexico by Mascaro.

A tracing from the original in the British Museum, and an imperfect draft of the same, without annotations by Kohl.

300. A. D. 1782. Port of San Diego.

Published in 1802, in the accounts of the voyage of the "Sutil y Mexicana."

— A. D. 1782.

Janvier's map preserves the great Sea of the West, with two entrances, — one passed by Aguilar, the other by De Fuca. It is sketched in H. H. Bancroft's *Northwest Coast*, i. 135.

— A. D. 1786.

The maps of La Pérouse in his *Voyage autour du Monde*. H. H. Bancroft, *Northwest Coast*, i. 176, sketches one of them.

301. A. D. 1787. Old and New California by Diego Francisco.

Shows the gulf of California and the Pacific coast north to San Francisco. Made to show the travels of Junipero Serra, the president of the missions of California. The bounds between New and Old California are laid down as an east and west line from the coast, just south of San Diego, to the head of the gulf of California. A road is indicated as connecting all the missions.

— A. D. 1787.

The map in Georgc Dixon's *Voyages Round the World, 1785-1788*, part of which is given in H. H. Bancroft's *Northwest Coast*, i. 180.

302. A. D. 1791. Port of Monterey.

From the atlas of the "Sutil y Mexicana" voyage.

303. A. D. 1791. The Straits of Juan de Fuca.

Part of a MS. chart of Vancouver's Island and surrounding waters, obtained from Mexico, and preserved at Washington. It shows the Spanish surveys of Francisco Elisa, or his deputy, Alferez Quimper. It is given in the *Reply of the United*

States (1872) on the San Juan boundary; and H. H. Bancroft's *Northwest Coast*, i. 242, gives part of it. Cf. other maps of Elisa, *Ibid.* i. pp. 245, 247.

304. A. D. 1791. Friendly Cove, Vancouver's Island.

From the map published in the account of the voyage of the "Sutil y Mexicana." See *post*, no. 310.

305. A. D. 1791. Queen Charlotte's Island by Captain Ingraham.

From the MS. report of Captain Ingraham, preserved in the Department of State, Washington, — the same named by Captain Gray in 1790, "Washington Island."

— A. D. 1791.

Map in Marchand's *Voyage autour du Monde*, part of which is given in H. H. Bancroft's *Northwest Coast*, i. 256.

— A. D. 1791.

Georg Forster's *Nordwestküste von America*, showing the "Grosser Nordliche Archipelagus Lazari," with "Juan de Fuca's Einfahrt."

306. A. D. 1792. Quadra and Vancouver's Island by Ingraham.

From the same report as no. 305. Cf. H. H. Bancroft's *Northwest Coast*, i. 278.

307. A. D. 1792. California Coast.

Shows the coast from 17° to 48° n. lat., following part of a Spanish chart in the archives at Washington, which came from Mexico. See no. 309, *post*.

308. A. D. 1792. California Coast.

The map in the *Atlas para el Viage de las Goletas Sutil y Mexicana en 1792*, published in 1802, under the editing of Navarrete, — the ships being commanded by Valdes and Galiano. The map maker profited by the surveys of Vancouver, who had published his results meanwhile.

309. A. D. 1792. Northwest Coast.

A continuation northward of the chart, no. 307.

310. A. D. 1792. Friendly Cove by Captain Ingraham.

From Ingraham's report, already cited.

311. A. D. 1792. Vancouver's Island and the Oregon Coast.

From the *Atlas* of the "Sutil y Mexicana" expedition.

— A. D. 1792-93.

H. H. Bancroft in his *Northwest Coast*, vol. i., gives the following maps:

- 1792. Haswell's map of Nootka (p. 262).
- 1792. Caamaño's map (p. 269).
- 1792. Galiano's map (p. 272).
- 1792. Vancouver's maps (pp. 276, 280).
- 1793. Vancouver's map (p. 292).

— A. D. 1793.

The map in William Goldson's *Observations on the Passage between the Atlantic and Pacific Oceans, in two Memoirs on the Straits of Anian and Discoveries of De Fonte*.

— A. D. 1812-1813.

Carta general (Pacific ocean) *por José de Espinosa*. Londres año 1812; *Corregida en 1813*.

312. A. D. 1854.

An engraved *Karte des Russischen Amerika* gezeichnet von H. F. Holmberg, 1854, which appeared in the *Ethnographische Skizzen über die Völker des Russischen Amerika* von H. F. Holmberg, Helsingfors, 1855.

X.

THE NORTHERN PACIFIC OCEAN AND ITS COASTS.

*. See section ix.

313. A. D. 1457. **China and Japan.**

From a Chinese treatise, *Yik-tung-che*, in the British Museum. Shows eastern coast of China and the islands of Japan and Lew-Chew. Korea is in the north.

314. A. D. 1490. **Eastern India, from the Ptolemy of 1490.**

The furthest point to the west is the gulf of Ganges. The Pacific coast is cut off by the right-hand edge of the map, and this is, in Kohl's opinion, the shore Columbus believed that he was skirting in sailing along the gulf-side of Central America. The name Cattigara, here on the land at the right-hand edge of the map, Kohl says he finds in early maps on the west coast of South America. See Winsor's *Bibliog. of Ptolemy*.

315. A. D. 1513. **Pacific Ocean.**

A Portuguese map. The west coast of America is unindented, and runs nearly northwest from 4° south latitude. The Moluccas and the southeast peninsula of Asia are shown. Follows a chart preserved in the Military Museum at Munich. Kohl supposes it to embody the explorations of Antonio da Miranda de Azevedo in 1513, who joined at the Moluccas an earlier expedition (1511-1512) by Francisco Serrão to those islands. This map is sketched in the *Nar. and Crit. Hist. America*, ii. p. 440. See section ix., under A. D. 1513.

316. A. D. 1518. (?) **Pacific Ocean.**

On the extreme west are the "Ilhas de Maluqua," on the extreme east the coast discovered by Balboa in 1513, and beyond the coast of Yucatan, Honduras, Cuba, Florida, etc. In mid-ocean there is nothing. The original is a Portuguese chart in the Military Museum at Munich. Kohl supposes it to have been made about the time Magellan's fleet was fitting out, and that it probably represents that explorer's views of the ocean which he was going to seek. The gulf of Mexico is left open towards the Pacific. The Pacific is made about 100° broad. Sketched in the *Nar. and Crit. Hist. America*, ii. 217.

317. A. D. 1536. **The Moluccas by Baptista Agnese.**

From the atlas of Agnese in the British Museum. Kohl suspects that Agnese used the maps brought back by Del Cano from Magellan's expedition, because there are traces of Spanish in the names, and none of Portuguese. The names in Pigafetta's narrative of Magellan's voyage are found here; and the islands are placed in relation to each other as to direction and distance as in that report. The Moluccas seem to be curiously duplicated, the one draft of them being 15° east of the other.

318. A. D. 1536. **Eastern Asia by Agnese**

From the same *Atlas* as no. 317. It shows the two great southern peninsulas of Asia, and the coast of China.

319. A. D. 1542. **Eastern Asia by Rotz.**

"The Indies of Orient," from Rotz's *Eoke of Idrography* in the British Museum. It shows the two great Asiatic peninsulas, the islands of Java, etc., and what seem to be the northern parts of Australia; and this, in Kohl's opinion, is the earliest instance of the recognition of that region on a map. (*Ante*, no. 55.)

320. A. D. 1543. **Asia.**

Shows the whole of Asia. From the *Polyhistoria* of Solinus. The southeastern part becomes a continental peninsula, as in the ancient maps. The editor of Solinus, Tsingrinus, did not recognize the fact, as Kohl thinks, that the Portuguese had already on their maps broken up this extension into the East Indian Archipelago. In the northeast corner of the map is a coast, "Terra incognita," which seems to be a recognition of the west coast of America.

321. A. D. 1550. **Japan and the China Coast by Freire.**

From a portolano by Juan Freire, inspected by Kohl while in the hands of Santarem. In his notes, Kohl says that some of the maps in it are dated 1546, though this one is undated; but he believes it to have been made about 1550. It was in 1543 or 1545 that the Portuguese under Ferdinand Mendez Pinto reached Japan; but their commercial intercourse began in 1549, when their missionary Xavier reached the island. This was a type of the contour of the Japanese coast common in European maps before the Dutch reformed the shape of it about 100 years later.

322. A. D. 1558. **China and the Moluccas by Diego Homem.**

From Homem's MS. atlas in the British Museum. As a Portuguese, Homem's knowledge of the China coast was superior to that of any other existing record, and better than that employed by Ortelius and Mercator much later.

323. A. D. 1568. **The East India Islands by Martines.**

The chief name on the map is "Isoli Maluchi." He gives the upper coast of an Antarctic continent marked "discoperta novamente." The map is less accurate than Homem's. (See *ante*, no. 322.)

324. A. D. 1570. **Straits of Anian and Neighboring Lands by Ortelius.**

From the *Theatrum orbis terrarum*, Antwerp, 1570. Kohl says that for all north of 40° (Japan) Ortelius had no authority but Pliny, Ptolemy, Marco Polo, and the geographical traditions of his time. An "Oceanus Scythicus" is given above 58° N. lat., bounded westerly by a northern peninsula of Asia. America lies wholly south of the same ocean. The peninsula of California is drawn, but represented very broad; the gulf is called "Mar Vermeio." Japan is longest east and west, and lies midway between Asia and America. The sea contracts above Japan, in 48° N. lat., forming the straits of Anian ("Stretto di Anian"). He gets "Quinci," "Mangi," "Mare Cin," from Marco Polo. The map is called "Tartariae sive Magni Chami regni typus."

The straits of Anian seem to be earliest indicated on the Martines map (*ante*, in section ix., under A. D. 1558). Various later maps in that section show the changing notions respecting the straits of Anian.

325. A. D. 1574. **Anian and Quivira by Forlani.**

A small, incomplete sketch of Forlani's map (without comment by Kohl), showing the straits of Anian separating "Anian Regnum" from "Quivir," with "Isle di Giapan," stretching east and west between the Asiatic and American coasts. It is sketched in the *Nar. and Crit. Hist. America*, ii. p. 454.

— A. D. 1583-1600.

The Japanese map in the Sloane collection, British Museum.

326. A. D. 1592. **Northeastern Asia and Japan from Molineaux's Globe.**

Extract from the globe in the Middle Temple, London. The contour of Japan follows Portuguese sources.

— A. D. 1597.

No. 28 of the Arnheim edition of Ptolemy, showing the straits of Anian. (See *ante*, section ix., under A. D. 1597); no. 32, showing the North Pacific. (See *Ibid.*)

327. A. D. 1609. **China and Japan.**

From a MS. sketch on vellum in the British Museum, purporting to have been sent from Madrid in 1609.

328. A. D. 1636. **Japan.**

Called "Perfekte Karte van de gelegentheijt des Landts van Japan." It is taken from a book published in 1636 (three years before the Portuguese were expelled from Japan by the Dutch), entitled *Rechte Beschryvinge van het machtigh Koninkrijk van Japan* (Lucas and Caron). The island is represented as connected by a neck with the continental "Landt van Jesso."

The explorations of the Dutch gave rise to the belief in a large island lying in the north Pacific, between America and Asia, called the island of "Jesso," with the supposed straits of Anian on the east, and the "Detroit de Vries" on the west. It clung for some time to the maps. Cf. *Nar. and Crit. Hist. America*, ii. pp. 463, 464, where is a fac-

simile of the map of Hennepin, as repeated by Campanius. There are other indications of it in maps noted in section ix., after this date. (See *post*, no. 330.)

329. A. D. 1700. **Northeastern Asia by Ysbrand Ydres.**

Made from explorations of this agent of the Russian government, and published as "Nova Tabula Imperii Russici." "Kamzatza" is a small river of the region, which ought to show the peninsula of Kamtschatka, but instead shows a rectangular cape, with the Pacific shore running north and south, and the Arctic shore east and west.

330. A. D. 1706. **Terra de Yesso by Lugtenberg.**

A curious configuration of North America is bounded on the north by Hudson's bay, connecting by the straits of Anian with the Pacific. North of these straits, and west of Hudson's bay and Baffin's bay, is an elongated (east and west) "Terra de Yesso," separated at the west end by the "Straet de Vries" from Yedso, a part of Asia, of which Japan is a southern peninsula. He supposes "Yesso" to be the country of the Lost Tribes, and the route by which America was peopled from Asia. A chain of smaller lakes connects the Great Lakes of Canada with the Pacific. (See *ante*, no. 328.)

331. A. D. 172- (?) **Kamtschatka by Homann.**

Published by J. B. Homann in Nuremberg. Evidently made before Behring's expedition in 1728. It purports to be based on the reports of Russian caracks and sable hunters. The peninsula is extended too far south, and Homann seems to confound it with Jesso. The northern end of Niphon (Amoor) is shown. The mouth of the Amur

332. A. D. 1721. **Northern and Eastern Asia by Lange.**

Without annotation.

333. A. D. 1728. **North Eastern Asia by Behring.**

Without annotation.

334. A. D. 1750. **Northern Pacific by Delisle and Buache.**

"Carte des nouvelles découvertes au nord de la mer du Sud, dressée sur les mémoires de M. de L'Isle par Philippe Buache, et présentée à l'académie des Sciences par M. De L'Isle, 1750." Delisle worked up his memoir in St. Petersburg, with the aid of Russian reports and surveys. The tracks of Behring, Spanberg, and others are laid down. Buache has tried on the American side to reconcile the reports of De Fonte with the later Russian discoveries, and gives a large inland "Mer de l'Ouest," the archipelago of St. Lazare and connecting inland waters, and the "lac de Velasco." He also puts down the supposed land seen by De Gama in mid-ocean, as also seen by Tschirikow and Delisle in 1741. See section ix., under A. D. 1752-53.

335. A. D. 1761. **Shores of the Northern Ocean.**

The map in Coxe's *Russian Discoveries*, London, 1803, showing the exploration of the Russian Shalaurof in 1761. Cf. map of the Northern Pacific with Russian discoveries, in *London Magazine*, 1764.

336. A. D. 1768. Russian America.

The results of the official Russian expedition under Lt. Sind in 1764-68, as shown in a map made by a Russian geographer, Von Stachlin. "Alaschka" is made a large island, lying off the coast of North America, this point of northwestern America being severed on the map from the main. Burney thinks that in constructing this map the chart of a Russian, Ivan Levow, was used.

See *ante*, section ix., under A. D. 1776.

337. A. D. 1769. Kamtchatka and the Fox (Aleutian) Islands by Krenitzin and Levasheff.

From Cox's *Russian Discoveries*, London, 1803. The northernmost of these islands is called "Alaxa Island," but it has a dotted line for its northern coast, and is really the point of Alaska.

338. A. D. 1775. Russian America by Jefferys.

Founded on no. 336, *ante*; but Jefferys continues the northern coast of America according to the Japan map given by Kempfer to Hans Sloane.

See *ante*, under A. D. 1583-1600.

339. A. D. 1775. Northern Pacific by Engel, Vaugondy, and Buache.

"Carte de comparaison des plans systématiques de Mr. M. Engel et de Vaugondy sur le Nord-Est de l'Asie et le Nord-Ouest de l'Amérique avec des cartes modernes. Par J. N. Buache, 1775." Engel's outlines are given in red, Vaugondy's in black, Buache's in blue. The longitude varies with them as much as 40° in some places.

See *ante*, section ix., under A. D. 1752-53.

XI.

THE NORTH ATLANTIC OCEAN AND NEIGHBORING WATERS.

* See sections i., iv., v., and vi.

340. A. D. 1450. The Northern Coast of Europe.

From a mappemonde found in the "Museum Borgianum," and supposed to be made by a German. The island "Anglia" and "Scotia" is shown.

341. A. D. 1534. Scandinavia by Bordone.

From the *Isolario de Benedetto Bordone*, Venice, 1534, the earlier edition having appeared in 1528. It shows the Baltic, the Scandinavian peninsula with "Engronelant" (Greenland) lying north of it, and connected by an isthmus with northwestern Europe. (*Ante*, nos. 48, 103.)

342. A. D. 1540. Northwestern Europe, from the Ptolemy published at Basle.

The north Atlantic is confined on the east by Norway, on the north by a neck called "Gronland, i. e. Virens terra," and on the west by "Terra nova sive de Baccaalos, (Bacalhos)," — whose coast is interrupted at the northwest by a square or vignette. "Island, Thyle" is a large island in the midst of this ocean. In the extreme north, beyond the land, is the "Oceanus Hyperboreus." An inscription south of the "Gronland" isthmus reads: "Capituler hic Stockfish." (*Ante*, no. 52, A. D. 1540.)

343. A. D. 1548. Northwestern Europe.

From the map known as the Dauphin, or Henri II., which Kohl used while in Jomard's possession. It shows the Baltic, and a large vaguely defined country to the north marked "Groolande" (Greenland), and on its northern coast "Vinllapie" (Finland). Cf. *ante*, no. 156.

344. A. D. 1546. Scandinavia.

Shows the Baltic, "Suecia," and "Islamda" (Iceland). From a MS. atlas by Juan Freire, in the possession, when Kohl took it, of Santarem. One branch of the Baltic is made to connect with the northern ocean. Kohl suggests from the fact that the names in the north are Portuguese, or at least not Scandinavian, that the Freire did not use northern drafts. (*Ante*, no. 152.)

345. A. D. 1567. Scandinavia by Olaus Magnus.

From an engraved map in the history of Scandinavia by Olaus Magnus, which represents geographical knowledge, as Kohl thinks, of a much earlier date. A peninsula in the northwest part of the map, extending to 82° N. lat., is marked "Gruntlondia," and a legend says: "Ilic habitant pigmei vulgo Screlinger dicti," recognizing the Scandinavian name of the Eskimo. (*Ante*, no. 106, A. D. 1567.)

346. A. D. 1570. North Atlantic by Stephanus.

From Torfæus's *Grönlandia Antiqua*, and marked "Sigurdus Stephanus delineavit, Anno, 1570." The draft was seemingly based on records or traditions of early Scandinavian voyages to the west from Iceland, which here is placed as "Island" in the centre of the map. On the west coast of Norway is called "Bjarmaland." North of this, a narrow strait is shown as connecting with water known to the Russians, or running towards their country. On the north is "Jotunheimar" and "Fieland" (land of giants); on the west a long cape, "Heriolfness," seems to be Greenland's southern point; at the southwest a cape stretches northward which is marked "Promontorium Vinlandie," which Kohl thinks may have been Newfoundland. Between this and Greenland lie (going south) "Helleland," (stony land), "Markland" (woody land), and "Skraelingeland" (land of dwarfs).

Kohl gives a sketch of this map in his *Discovery of Maine*. (See *ante*, no. 106, A. D. 1570.)

347. A. D. 1570. The North Atlantic.

Torfæus, who gives this map, says of it: "Jonas Gudmundi filius delineavit, vir curiosus Islandus." Kohl thinks it follows Scandinavian traditions. The north Atlantic is shown as landlocked, except there is a narrow strait connecting with the Arctic sea, north of the Scandinavian peninsula, and a contracted continuation of the ocean at the south, between "Gallia" and a land, the northern part of which is seen, and called "America," "Terra Florida," "Albania," etc. Above this is another channel, running west from the enclosed ocean. The west and north of this ocean is bounded by a land marked (going north) "Wester Bygd," "Oster Bygd," "Kroksfiorderheide," "Risaland," and "Hcl-land."

See no. 351, *post*.

348. A. D. 1595. Nassau Strait by Barentz.

From De Bry, third part of the Oriental series, or Minor Voyages, published at Frankfurt, 1601. Kohl

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assigns the surveys on which this map is constructed to the second voyage of Barentz in 1595. The map was re-engraved in the *Begin ende Voortgange van de Oost-Indische Compagnie*, 1646, vol. I., p. 6. The strait is that south of Nova Zembla, separating it from the main.

349. A. D. 1595. Northern Europe by Linschoten.

This is from the engraved map in Part 10 of the same series of De Bry (1613). Linschoten accompanied Barentz in his expedition of 1594. It follows the coast from the eastern shore of Norway to beyond Nova Zembla.

350. A. D. 1597. Nova Zembla by De Veer.

From the map in the third part of the same series of De Bry (1601). Gerhard de Veer was with Barentz on his three northern voyages. A facsimile of this map, *Caerte van Nova Zembla . . . door Gerrit de Veer*, is given in the *Three Voyages of Willem Barentz*, published by the Hakluyt Society in 1876, as well as in that society's *Three Voyages by the North East*, published in 1853.

351. A. D. 1606. North Atlantic.

From Torfæus's *Gronlandia Antiqua*, 1606, where it is called: "Delineatio Gronlandiæ Gudbrandii Torlacii, Episcopi Holensis." It resembles somewhat no. 347, *ante*; but the land called "America" in that is here named "Estotilandia." "Gronlandia" is better drawn, of which the east shore is marked: "Latus orientale Groenl. inhabitatum." It is sketched in Kohl's *Discovery of N'ine*, p. 109.

352. A. D. 1613. Northern Russia and Nova Zembla by De Bry.

From Part 10 of the same series of De Bry, published in 1613. It purports to be taken from a Russian map, and the language of that to be translated into Latin.

The map by Isaac Massa is reproduced in the Hakluyt Society volumes, — *The three Voyages of Willem Barentz* (1876) and *Three Voyages by the North East* (1853).

353. A. D. 1773. Northwestern Europe, Spitzbergen and Greenland by Phipps.

It shows the ocean north of 50°, and west of the meridian running through Iceland; a part of Greenland is projected above 71°. From the map given by Constantine John Phipps in his *Voyage towards the North Pole*, London, 1774.

354. A. D. 1818. North Atlantic by Buchan.

It shows Iceland, Norway, Spitzbergen, and the east coast of Greenland. It is taken from the chart in F. W. Beechey's *Voyage of Discovery towards the North Pole, performed in his Majesty's Ships Dorothæa and Trent, under the command of Capt. D. Buchan*, London, 1843.

* Cf. the enumeration of Arctic maps in the *British Museum Catal. of Engraved Maps*, 1885, column 175.

XII.

SOUTH AMERICA.

* See section ii, *ante*, and xiii. to xvi., *post*.

— A. D. 1515.

Schöner's early globe, of which there are drawings of the South American parts in Ruge's *Zeitalters der Entdeckungen* (p. 461), and in the *Nar. and Crit. Hist. America*, vol. viii. Cf. *ante*, nos. 34 and 35, and the Nordenskiöld gores of the early part of the sixteenth century, figured in that author's *Globkarta fran Början af sexton de selket*, and in the *Nar. and Crit. Hist. America*, vol. viii.

355. A. D. 1540(?). South America. (French.)

Part of a MS. mappemonde in the British Museum, supposed to have been made by order of Francis I. for the Dauphin. Cf. Malte Brun, *Hist. de la Géographie* (Paris, 1831), vol. i., p. 630. The general name of the continent seems to be *La Terre du Brésil*, which convinces Kohl that the map-maker used Portuguese sources, which is also apparent from the Portuguese flavor of the French names on the map, where French is used. There are, however, Spanish legends in some parts, as on the east coast of Patagonia. There are no names on the coast of Chili, which leads Kohl to think that the map could not have been made long after 1535, when that coast became well known. The Amazon is not represented except in its mouth; and as Orellana did not explore it till 1543, intelligence of his voyage had not reached, it would seem, the draughtsman. The La Plata connects with the Amazon's mouth, making an island of the most easterly part of the continent. There is a sketch of it in the *Nar. and Crit. Hist. America*, vol. viii.

— A. D. 1544.

Cabot's mappemonde. (See *ante*, section ii, *sub* 1544.) A sketch of the South American part is given in the *Nar. and Crit. Hist. America*, vol. viii.

— A. D. 1545-49.

Medina's *Arte de navegar* (1545) had a map of South America, cut off above the La Plata. This same cut was pieced out to include Magellan's straits in the edition of 1549. A facsimile of this last is given in the *Nar. and Crit. Hist. America*, vol. viii.

— A. D. 1548.

The "Carta Marina" of the Ptolemy of this year. See *ante*, under no. 58. A facsimile of this map is given in the *Nar. and Crit. Hist. America*, vol. viii.

356. A. D. 1550(?). South America.

From a Spanish portolano preserved in the Bodleian Library, at Oxford. Indications of towns founded after 1550 would probably put the date of the map about 1560, as Kohl indeed says in his annotations, but he gives the date "about 1550" in the title of it. The interior of the continent is rather fancifully laid out, and the coasts are not so well made out as on contemporary Portuguese charts. What seem to be the Falkland islands are called "yās de S. anton."

357. A. D. 1550(?).

A less perfect draught of the same.

— A. D. 1554.

The Bellero map. See *ante*, no. 64. There is a facsimile of it in the *Nar. and Crit. Hist. America*, vol. vii.

— A. D. 1556.

Map in Ramusio; repeated in the edition of 1565. See *ante*, no. 66. There is a facsimile in the *Nar. and Crit. Hist. America*, vol. ii., p. 228.

358. A. D. 155-(?). South America. (French.)

From a MS. map once in the possession of M. Jomard. Kohl thinks it a French map made after a Portuguese original, and that it resembles the Nicolas Vallard map of 1547. The general name of the continent is *Amerique*. There being no trace of Villegagnon's settlement in Brazil in 1556, Kohl puts its date earlier than that year.

— A. D. 1561.

The maps in the Ruscelli edition of Ptolemy. See *ante*, under no. 69.

359. A. D. 1562. South America by Gutierrez.

After an engraved map, thought by Kohl to be the earliest on so large a scale, and called, "America sive quartæ orbis partis exactissima descriptio. Auctore Diego Gutierrez, Philippi regis Hisp. Cosmographi. II. Coch excud. 1562." It shows neither latitude nor longitude. The serpentine course of the Amazon is like the delineations of Honnem, and the river bears the names reported by Orellana. South of the Amazon, and between it and the La Plata, is the Rio de Marañon, which is made to rise in lake Titicaca, and empty into the Atlantic. The Magdalena River was known after 1538, but it fails of recognition on this map, which is sketched in the *Nar. and Crit. Hist. America*, vol. viii.

— A. D. 1569.

The great Mercator map. See *ante*, under no. 71.

— A. D. 1570.

The Ortelius atlas. See *ante*, no. 72.

— A. D. 1572.

The Porcacchi map. See *ante*, under no. 72.

360. A. D. 157-(?). South America by Forlani.

The printed map of Paulo di Forlani in the British Museum, without date. It is called *La Description di tutto il Peru*. The name of Peru does not otherwise occur on it. The eastern extremity is called "Terra del Brasil." The northwest corner is marked, "Castiglia del Oro." The Orinoco country is called "La nova Andalucia." The longitude is reckoned apparently from Pico in the Azores. There is a copy of the original in Harvard College Library, after which a facsimile was made in the *Nar. and Crit. Hist. America*, vol. viii.

361. A. D. 1574. South America by Forlani.

The map has an Italian inscription, which is to this effect: "I met some months since in Venice a certain Don Diego Herrero, a gentleman of noble family, and had with him some talks on geography. He presented to me a sketch, showing voyages of

exploration, and this drawing I have engraved. Venice, Dec. 14, 1574. Paolo dei Furlani." Kohl thinks this map precedes no. 360.

— A. D. 1574.

The *Enchiridion* of Philippus Gallæus. See *ante*, under no. 72.

— A. D. 1578.

The Martines map. See *ante*, no. 77.

362. A. D. 1585(?). South America by Doetechum.

A MS. map in the British Museum, signed "Joannes a Doetechum fecit." The legends on the map are in Latin; but the names on the Brazil coast are in Portuguese, and on the other coasts in Spanish. Cordova, founded in 1573, is put down, and this affords an anterior limit for the date of the map. The name "Rio de buena Sarres" leads Kohl to think that the town Buenos Ayres (1580) had not been founded when the map was made, and he does not know the ground for the date 1585(?), adopted in the Museum catalogue. The Paraguay (called Parana) runs from Lacus Eupana, which has connection also through various channels with the Atlantic, above and below Cape St. Augustine. The map is cut off just north of Patagonia, as is held by Kohl to have been used by Hondius in his map, made shortly after 1600. The "Rio Grande" (Magdalena) is developed more than on any earlier map, as Kohl says. The Orinoco is a mere coast stream. There is a sketch of this map in the *Nar. and Crit. Hist. America*, vol. viii.

— A. D. 1587.

The map in Hakluyt's Paris ed. of Peter Martyr. See *ante*, no. 80.

363, 364. A. D. 1592. South America by De Bry.

An imperfect sketch, and a tracing.

365. A. D. 1593. South America by Judæis.

From an engraved map by Cornelius Judæis, called *Brasilia et Peruvia*. The Orinoco is a small stream. The La Plata is made to rise in the "Laguna del Dorado."

— A. D. 1593.

Map of Maffcius. See *ante*, under no. 83.

— A. D. 1597.

The maps in Wytfliet's continuation of Ptolemy (see *ante*, under no. 85), and in the editions of Ptolemy at Cologne and Arnheim (see *ante*, under no. 84).

— A. D. 1598.

The map in Münster's *Cosmographia*. See *ante*, no. 86.

366. A. D. 1599. South America by Linschoten.

From an engraved map in Linschoten's *Navigatio in Indiam Orientalem*. The La Plata rises in the "Laguna del Dorado."

— A. D. 1599.

Hulsius's "Nova et exacta delineatio Americæ partis australis" in the *Vera historia* of Schmelzer, Amsterdam, 1599, part of which is given in facsimile in the *Nar. and Crit. Hist. America*, vol. viii.

367. A. D. 1600(?). South America.

It shows the continent between the northern limits of Brazil and the upper parts of Patagonia. After a MS. map in the Dépôt de la Marine at Paris. Para, near the mouth of the Amazon, founded soon after 1620, is not indicated, and the course of the Amazon is not improved upon the type fashioned after the reports of Orellana in 1542. Near lake Titicaca is a legend about the explorations of Nuflo de Chaves, in 1557-1560. The names and inscriptions are nearly all Spanish, with an admixture of Portuguese in Brazil. The designations of the oceans and a few other names are French. These features indicate a French draughtsman, working on Spanish and Portuguese models.

— A. D. 1601.

Map in Herrera. See *ante*, no. 88.

— A. D. 1603.

The map in Botero's *Relaciones*. See *ante*, under no. 84.

— A. D. 1606.

Map in the *Regimiento de Navegacion* of Cespedes. See *ante*, no. 89.

368. A. D. 1610(?). America Meridionalis.

From the *Hondius-Mercator Atlas*, Amsterdam, 1630. The map is without date. The great Antarctic Continent, "Terra del Fogo," would indicate that it was made before Lemaire's voyage in 1615. No draughtsman's name is attached to the map, but Kohl conjectures that it was made by Hondius. Kohl calls it the most correct map at its date. Lake Titicaca connects with the Amazon. The "Eupana Lacus" connects south with the La Plata, north with the Amazon, and east with the Atlantic. The continent is made 60° broad.

See the Hondius map in the *Mercator Atlas* of 1613, and in Purchas, iii. p. 882.

— A. D. 1613.

The map in the *Detectionis Freti*, etc. The map of Joannes Oliva in the British Museum. See *ante*, no. 90.

— A. D. 1625-30.

See De Laet, *ante*, no. 92.

— A. D. 1635.

See the Mercator Atlas, *ante*, under no. 100.

— A. D. 1651.

Jansson's *Atlas Minor*, ii. 401.

369. A. D. 1660. South America by Allard.

In the Orinoco he follows Visscher; in the Amazon, Acuña. The river Xanca in Peru is made the source of the Amazon. He records Brouwer's passage between Staten island and Tierra del Fuego, in 1643.

— A. D. 1663.

Heylin's *Cosmographia*.

370. A. D. 1680-81. South America by Sharp.

The map is called "A description of the South sea and Coasts of America, Containing the whole navigation to all those places at which Capt. Sharp and his Companions were in the years 1680 and 1681." Sharp's track of circumnavigation is pricked on the map. The southern point reached by him was 58° 25', where he saw no land. He went much to the southeast of Staten island, called by him Albemarle island. The map is copied from Ringrose's *Buccaniers of America*, 2d ed. London, 1684.

XIII.

NORTHERN PARTS OF SOUTH AMERICA.

* * See sections ii. and xii., *ante*.

371. A. D. 1525. North Coast of South America by Lorenz Friesa.

One of the twelve sheets of a wood-cut map, made in 1525, but not published till 1530, and based, it is thought, on maps of Waldseemüller, as he had also used that geographer's maps in the 1522 edition of Ptolemy. The main inscription on the continent is "Das nñv erfunde land." Kohl thinks the information used was not very recent in 1525. It is sketched in the *Nar. and Crit. Hist. America*, ii. p. 218.

372. A. D. 1528. Terra de Santa Croce by Bordone.

From the first edition of Bordone's *Isolario*, 1528. It is called, "Terra de santa croce, over Mondo nuovo." He considers South America an island, having no connection with Asia or with North America. "C. S. X." is the designation put for the present Cape St. Augustine, and Brazil is called "Paria." He had only heard reports of Balboa's and Magellan's discoveries, and he omits the southern parts of the continent. The map is supposed to have been made in 1521. There is a sketch of it in the *Nar. and Crit. Hist. America*, vol. viii.

373. A. D. 1542. Northeast Coast of South America by Rotz.

From his *Boke of Idrography* in the British Museum. Kohl thinks from the names that Rotz derived more help from Portuguese than from Spanish sources. The two chief names along the coast are "Coste of Brazil" and "Coste of Caniballis." It extends from Trinidad to below Cape St. Augustine.

374. A. D. 1595(?). Amazon and Orinoco.

It shows the coast from the mouth of the Amazon to Panama, and the watersheds of the Amazon and Orinoco. The original MS. map was acquired by the British Museum in 1845, and Kohl is inclined to believe it the identical map made when Raleigh was on the Orinoco, or a contemporary copy of his map. The original is on vellum, and Kohl thinks that the manner of execution points to a date earlier than 1600. The extent of the map corresponds to the map which Raleigh tells us he made of the country, and the geographical features correspond with his narrative, including the "Lake of Manoa."

375. A. D. 1596. Orinoco.

A small sketch of the coast from Venezuela to the mouth of the Amazon.

376. A. D. 1619. Guiana from De Bry.

Kohl's annotations are erased.

377. A. D. 162-?. Orinoco by N. Visscher.

Sketch of the Orinoco valley, with adjacent coasts, and part of Lacus Parime.

— A. D. 1651.

Northwest parts of South America, in Jansson's *Atlas Minor*, ii. 407.

378. A. D. 1656. Guiana by Sanson.

From the "Carte de la Guyane et Caribane, augmentée et corrigée suivant les dernières Relations par Sanson d'Abbeville, 1656." Kohl thinks Sanson used drafts brought away by the French when they left Cayenne in 1653. It shows in the interior a large "Lac ou Mer, que les Caraïbes appellent Parime." This draft remained the best one of the interior of Guiana till D'Anville's map in 1729.

379. A. D. 1669. Guiana by Thelot.

Made at Frankfort on the Main by T. P. Thelot, attached to an account of Guiana, published in 1669. The map is called, "Guiana sive Amazonum regio." The usual extensive "Parime Lacus," with its city of "Manoa," appears.

380. A. D. 1694. Surinam by Van Keulen.

From the *Zee-Atlas* of Van Keulen.

381. A. D. 1729. French Guiana by D'Anville.

From an engraved map based on reports of M. Milhan. It shows the country for about seven leagues around Cayenne.

382. A. D. 1729. French Guiana by D'Anville.

From 1635, when the French first had possession, down to 1676, when their possession was assured, and during later periods down to 1729, there were French surveys of the country, of which D'Anville had the use. Up to this date little was known of the interior beyond what the Fathers Grillet and Bechemel learned in explorations in 1674.

383. A. D. 1730. Venezuela by D'Anville.

Depending on Spanish reports. The coast is still inaccurate.

384. A. D. 1741. Orinoco Valley by Gumilla.

The map is called, "Mapa della Provincia y Misiones de la Compañia de I. H. S. de Nuevo Reyno de Granada." From an engraved map accompanying Gumilla's work on the Orinoco Country. Kohl thinks it hardly an improvement on the Raleigh map (*ante*, no. 374). It shows the "Laguna de Parima."

385. A. D. 1751(?). North Part of South America by Brentano and La Torre.

This map, without date, was made, in Kohl's opinion, not long after 1744, and is entitled, "Provincia Quintens Societatis Jesu in America eum tribus eadem finitimis, a PP. Carolo Brentano et Nicholas

de la Torre. Romæ." A legend at the point where the Orinoco and Rio Negro (branch of Amazon) become confluent says that this connection was discovered in 1744, by Father Emanuel Roman, Superior of the Orinoco missions. The Portuguese had found it out, however, the year before. The course of the Orinoco seems to be copied from Gumilla.

386. A. D. 1775. Sources of the Orinoco by J. de la Cruz Cano.

A small imperfect sketch.

387. A. D. 1830. Massaroony River by Hillhouse.

A branch of the Essequibo river. An engraved map in the *Journal of the Royal Geographical Society*, iv. (1834).

388. A. D. 1832. British Guiana by Alexander.

From an engraved map in the *Journal of the Royal Geographical Society*, ii. (1832). The best map, before Schomburgk reformed the geography of the country.

389. A. D. 1834. Part of British Guiana.

An engraved map by Hillhouse in the *Journal of the Royal Geographical Society*, iv. (1834).

390, 391, 392. A. D. 1836. British Guiana by Schomburgk.

Nos. 390 and 391 are engraved maps in the *Journal of the Royal Geographical Society*, vi. (1836), and as improved in vii. (1837). These maps show the country from 1° to 9° N. lat., and from 56° to 60° W. longitude. No. 392 gives with minutest detail and according to later explorations, the part between 1° and 5° N. lat., and follows an engraved map in *Ibid.*, xv. (1845).

XIV.

SOUTHERN PARTS OF SOUTH AMERICA.

*. Cf. sections ii. and xii.

393. A. D. 1521. Straits of Magellan by Pigafetta.

From the engraved map in Amoretti's edition of Pigafetta's narrative of Magellan's voyage, published at Milan, 1800. There is a facsimile of this map in the *Nar. and Crit. Hist. America*, vol. ii., and a sketch in *Ibid.*, vol. viii.

— A. D. 1529.

Ribero's mappemonde. See *ante*, no. 41. A sketch of Magellan's straits from it is given in the *Nar. and Crit. Hist. America*, vol. viii.

— A. D. 1531.

Finæus's mappemonde. The southern hemisphere is reproduced in Wieser's *Magalhães-Strasse*, p. 66, and in the *Nar. and Crit. Hist. America*, vol. viii.

— A. D. 1533.

The southern hemisphere of Schöner is figured in Wieser's *Magalhães-Strasse*, and in the *Nar. and Crit. Hist. America*, vol. viii.

394. A. D. 1546. Patagonia and Magellan's Straits by J. Fiebre.

From a portolano which was in Santarem's possession when used by Kohl. With the east coast of Patagonia and the straits having a nomenclature traceable to Magellan's voyage, Kohl does not find any original source for the names on the west coast, which runs north on the map to 27° S. lat. Kohl is mistaken in supposing Magellan did not run up the west coast before turning westward. Pigafetta's map shows that he did. Kohl quotes Gomara's statement that Camargo, in 1540, was the first to bring to Europe certain news of the Pacific coast between the straits and Peru, and thinks that Freire may have had Camargo's charts. There is a sketch of this map in the *Nar. and Crit. Hist. America*, vol. viii.

— A. D. 1547.

A sketch from the Nicolas Vallard map is in the *Nar. and Crit. Hist. America*, vol. viii. See ante, no. 154.

— A. D. 1578.

Hondius's map illustrating Drake's voyage is reproduced in Kohl's *Magellan's-Strasse*.

395. A. D. 1579-80. Sarmiento's Discoveries.

From a MS. Spanish map in the British Museum, showing the surveys of Pedro Sarmiento among the coast islands on the west coast of Patagonia. It does not show his researches further south within Magellan's straits, which leads Kohl to suspect that the map only indicates the explorations made before his vice-admiral, Villalobos, returned to Peru.

396. A. D. 1587. Magellan's Straits and the Antarctic Continent.

From a French MS. in the British Museum. It represents Tierra del Fuego as expanded into a continent, the northerly point of which is made an island by a transverse channel, somewhat hesitatingly indicated by some pictures of trees, which conceal the reaches of it.

— A. D. 1590.

The map in Johannes Myritius's *Opusculum geographicum*. See ante, no. 79.

397. A. D. 1599. Magellan's Straits by F. de Weert.

From De Bry's *Greater Voyages*, Part IX. (1602), showing the results of De Weert's surveys of the strait. Kohl thinks that Hondius in his *Atlas* (1607) worked from the same material with more detail, as shown in his better delineation of the great bend in the strait, which is here hardly noted.

398. A. D. 1600. Magellan's Straits by Hondius and Mercator.

This accompanies the treatise on the straits in the Hondius edition of Mercator, 1607, — which treatise, as it does not record the recent Dutch explorations, Kohl judges to have been written by Mercator himself before 1594, and to have been used by Hondius to accompany a map, embodying the Dutch surveys of Mahn, Coraes, and De Weert in 1598-99. Just after this, in 1600, Kohl would place this map. Cf. the Hondius map in Purchas, iii. p. 900.

399. A. D. 1600. Southern Part of South America by Olivier van Noort.

A combination of two maps which appeared in the *Begin ende Voortgang van de vereenigde Nederlandsche Oost-Indische Compagnie*, 1646. Van Noort tracked these coasts in 1595-1600.

400. A. D. 1602. Patagonia by Van Noort.

The southern part of no. 399, which Kohl dates in this case 1602. He makes no comments on it.

401. A. D. 1602. Patagonia by Levinus Hulsius.

It gives an excessive breadth to the Patagonian region, as was usual in maps of this time. In the interior a Patagonian giant is represented running an arrow a yard and a half long down his throat to the bottom of his stomach.

402. A. D. 1615. Magellan's Straits by Spilbergen.

A map in De Bry, Part XI. (1619), purporting to show the explorations of George Spilbergen; but there is nothing in the accompanying text to explain its history.

403. A. D. 1619. Tierra del Fuego by Schouten.

Showing Magellan's straits; Tierra del Fuego, which is made a single large island, with a portion of its west coast unknown, and Lemaire's channel separating it from "State land," the western end of which is shown; as is also Schouten's track in rounding Cape Horn. It follows the engraved map in the *Diarium vel descriptio . . . itineris facti a Guilielmo Cornelio Schouteno Hornano*. Amsterdam, 1619. The map is called, "Caarte van de nieuwe Passage . . . ontdeekt . . . in den jare 1616 door Willem Schouten van Hoorn." Schouten's own charts are lost, says Fiebel; but as Willem Jansson wrote the preface to the book, he probably made this map from Schouten's drafts. Schouten sailed under the patronage of some Dutch merchants, chief among whom was Isaac Lemaire, with the purpose of discovering some other passage to the Pacific than Magellan's straits; and he was accompanied by Jacob, son of Isaac Lemaire, and after the latter they named the newly found passage between State land and the main coast.

Cf. the map on the title of the London edition of Schouten (1619), of which a facsimile is given in the *Nar. and Crit. Hist. America*, vol. viii. Kohl in his *Magellan's-Strasse* gives the map from the Amsterdam (1619) edition.

404. A. D. 1621. Patagonia by Nodal.

Follows an engraved map in Montenegro's *Relacion del Viaje de los Nodales*, Madrid, 1621.

405. A. D. 1621. The Same.

A less perfect copy. This map is reproduced in Kohl's *Magellan's-Strasse*.

406. A. D. 1624. Cape Horn by Walbeck.

An engraved map in the *Begin ende Voortgang van de Vereenigde Oost-Indische Compagnie*, 1646 (vol. ii.).

407. A. D. 1630. La Terra del Fuogo by Dudley.

One of the MS. maps of Robert Dudley, preserved at Munich, on which his *Arcano del Mare*, published at Florence in 1646, was based. Kohl assigns all of Dudley's maps to 1630. Tierra del Fuego is made a completed island on the Schouten idea. "Staten land" is a peninsula of a gr. at Antarctic continent.

— A. D. 1644.

The map in the Amsterdam ed. of Linschoten.

— A. D. 1646.

The map of Kaerius in Speed's *Prospect* (London, 1665).

— A. D. 1651.

Straits of Magellan in Jansson's *Atlas Minor*, ii. 427.

408. A. D. 1666. Magellanica by Jansson.

From Jansson's *Atlas*, 1666. For Magellan's straits, he followed mainly Nodal's reports. "The general shape of Tierra del Fuego is like Schouten's. 'Staten Eylant' has the insular form for the first time, says Kohl, in a printed map.

409. A. D. 1670. Magellan's Straits by Narborough.

Sir John Narborough was sent out by Charles II. in 1669 to renew explorations, which had been neglected for many years. Narborough's map, three feet long, as drawn by himself on parchment, is in the British Museum. From this a reduction was engraved and published in London, and from this engraving—"A new map of Magellan's straits discovered [*sic*] by Capt. John Narborough, commander of H. M. Ship Sweepstakes made and sold by P. Thornton"—Kohl makes the present draft, which he thinks was largely based on early Dutch surveys.

410. A. D. 1670. Patagonia and Tierra del Fuego by Narborough.

This map seems also mainly derived from Dutch sources, and appeared in *An Account of several late Voyages and Discoveries to the South and North by Sir John Narborough*, London, 1694.

411. A. D. 1700(?). Coast South of Buenos Ayres.

The date 1700 is given by Kohl in the title, but it seems to be an error, as in his notes he says the map, which is a MS. one preserved in the British Museum, grew out of the explorations of Juan de la Piedra and of Antonio and Francisco Viedma in 1778 and 1779, under instructions from Spain to form settlements on the east coast of Patagonia. The map also shows the inland explorations of Brazilio Villarino in 1782, who was sent out by Viedma. Routes of other explorers are also indicated.

412. A. D. 1714. Magellan's Straits and Tierra del Fuego by Frezier.

This is one of the maps explained by Frezier to Louis XIV., when he returned, in 1714, from the voyage of exploration on which that monarch had sent him in 1712. Cape Horn is laid down in 55° 45'. The west coast of Tierra del Fuego trends nearly east and west. The eastern parts of the Falkland

islands are shown, with tracks of vessels from St. Malo from 1700 to 1713, by whom they are said to have been discovered.

413. A. D. 1717. The Same.

This is an incomplete sketch dated differently, and has no annotations.

414. A. D. 1748. The Country South of the Rio Plata by Cardiel.

An oblong, incomplete sketch, without comment.

— A. D. 1766.

Bougainville's map of the straits, of which a facsimile is given in the *Nar. and Crit. Hist. America*, vol. viii.

415. A. D. 1775. Southern Part of South America.

From an English map, based on the *Atlas* of Juan de la Cruz Cano y Olmadrilla, published at Madrid in 1769. The English map is called "improved from Byron, Wallis, Carteret and Bougainville, 1775."

416. A. D. 1782. Rio Negro.

This shows a section from ocean to ocean of northern Patagonia and Chili, and was based by Arrow-smith on data got from the explorations of Basilio Villarino in 1782, and was published in the *Journal of the Royal Geographical Society*, vol. vi. (1836).

417. A. D. 1783. East Coast of Patagonia by Viedma.

It follows a rough sketch preserved in the British Museum.

418. A. D. 1824. Cape Horn and Vicinity by Capt. Weddell.

A small sketch without notes.

419. A. D. 1830. Patagonia after Capt. King.

A sketch without comment.

420. A. D. 1833. The Southern Pole.

A map showing the southern hemisphere between the pole and 30° S. lat., with tracks of recent explorers laid down, published in the *Journal of the Royal Geographical Society*, iii. (1833).

421. A. D. 1833. East Falkland Island.

From the *Journal of the Royal Geographical Society*, iii. (1833).

XV.

BRAZIL AND THE AMAZON.

*. Cf. sects ii., xii., and xiii.

422. A. D. 1500. Brazil by La Cosa.

A section of the La Cosa chart. See *ante*, no. 26. Kohl considers that La Cosa, in the water which he represents southwest of South America, anticipated the discovery of the South Sea or Pacific. He considers the "Costa plaída" to mark the island which

divides the Amazon proper from the Para river, and holds that the names along the coast are the results of the voyages of Pinzon and Lepe.

423. A. D. 1525. Brazil by Lorenz Friess.

From the *Carta Marina* (Atlas) of Lorenz Friess, published in 1530, but it represents rather the condition of knowledge of this part of the South American coast after the Portuguese explorations of 1501-3. The country is called, "Prisilia sive terra papagali." Another (German) inscription reads, "In this country, men when they die, are cut up, smoked, roasted and eaten." Another says, "They have sailed all along this coast, but no one has penetrated into the country." It is sketched in the *Nar. and Crit. Hist. America*, vol. viii.

424. A. D. 1542. Coast of Brazil by Rotz.

A sketch without comment. It is from the *Idrography*. See *ante*, no. 55. Brazil is made an island.

425. A. D. 1546. Brazil by J. Freire.

It shows the coast from the mouth of the Amazon to La Plata. Copied from a MS. portolano then in the possession of Santarem. It gives latitude without longitude, and Kohl calls it the earliest good survey by astronomical helps. La Plata rises in a lake, which Kohl believes the same discovered by Cabeza de Vaca, and for the first time laid down in this map.

426. A. D. 1547. Brazil by Nic. Vallard.

From a MS. atlas. See *ante*, no. 151.

427. A. D. 1556. Brazil.

From Ramusio, *Viaggi*, vol. iii. (1556). The map appears to be of French origin. There is a facsimile in Paul Gaffarel's *Brésil Français*, p. 61.

428. A. D. 1558. Brazil by Diego Homem.

From the MS. atlas in the British Museum. See *ante*, no. 67. It covers the same extent as no. 425, but the coast is more minutely drawn, and besprinkled with names, quite unlike those of Freire. The degrees of latitude are marked, but not numbered.

429. A. D. 1558. The Amazon and the Northern Coast by Diego Homem.

From the same atlas as no. 428. That part of the ocean which receives the flow of the Amazon is called "Mare aque dulcis." The river itself is called "Rio de S. Juan de las Amazonas." The names given by Orellana are scattered along its course. The name "Omaga" (Omagua) is said by Kohl to be here seen for the first time on a map. There is a sketch of this map in the *Nar. and Crit. Hist. America*, viii.

430. A. D. 1558. The Same.

A less perfect sketch.

431. A. D. 1561. Brazil by Ruscelli.

Added by Ruscelli to the ed. of Ptolemy, published 1561, and thought to be made upon the draft published by Ramusio, 1556; but Ruscelli adds lines of longitude and latitude, which Ramusio did not give. Kohl thinks it the earliest map of Brazil on which longitudes are marked. They are nearly right — by a chance.

— A. D. 1578.

Brazil in the *Atlas* of Johannes Martines, in the British Museum. See *ante*, no. 75. A sketch of the map of Brazil is given in the *Nar. and Crit. Hist. America*, vol. viii.

432. A. D. 1599. South America by Levinus Hulsius.

An engraved map published at Nuremberg, and called, "Nova et exacta Delineatio Americae partis Australis, que est Brasilia," etc. Kohl says that the Orinoco is for the first time drawn inland. It is represented as a broad stream, with a mouth filled with many islands. The usual "Parime Lacus" connects with the Atlantic by the Caiene and Waipago rivers. A large "lacus Eupuna" connects north with the Amazon, east with the ocean, and south (apparently) with the La Plata river. See facsimile in *Nar. and Crit. Hist. America*, vol. viii.

— A. D. 1651.

Brazil, in Jansson's *Atlas Minor*, ii. 417. It resembles Ramusio's, no. 427, *ante*.

433. A. D. 1656. The Amazon by Sanson.

A published map, "Le Peru et le Cours de la Rivière Amazon, Paris, 1656." It was made in large part after the reports of Father d'Acuña, who accompanied Pedro Texeira in 1638 on his trip up the Amazon, thence to Quito, and return. An account of the journey was published in Madrid in 1640, but without a map. This map, fashioned by Sanson, on that account continued to be the best, down to the map of Father Fritz in 1717.

434. A. D. 1695. Brazil by Coronelli.

A small sketch, without comment.

435. A. D. 1700. (?) The Amazon by Fritz.

After a MS. map in the Depot de la Marine at Paris, without date or author, called "Rio de Marannon o de Amazonas." Kohl thinks it either a copy of Father Fritz's map, as he made it, or as it was engraved in Quito in 1707. The names agree with those in Fritz's report. It does not give the upper course of the Ucayale, which is given in no. 438 (*post*), but it gives details generally with greater fulness.

436. A. D. 1703. The Amazon by Delisle.

It is called, "Carte du Pays des Amazones, par De l'Isle, d'après Herrera, Laet, Acuña, Rodriguez, etc., 1703." It is incorrect in many important particulars.

437. A. D. 1703. Brazil by Delisle.

Called, "Carte du Brésil d'après Herrera, Laet, Acuña, Rodriguez et sur plusieurs relations, 1703." Kohl considers Sanson's map of 1656 far more accurate.

438. A. D. 1707. The Amazon by Fritz.

The German Jesuit missionary, Father Samuel Fritz, was familiar with the river after 1686, and during his journeys he used rude instruments to make observations of latitude, but he had none to determine longitude, though lines of longitude are given in his map. This map was engraved in Quito

in 1707, and is the earliest map based on any astronomical observations. A reduced copy of it was, in 1717, published in the *Lettres Édifiantes*, but was unaccompanied by Fritz's reports, which were never published. It remained the best map till that of Condomine (1744) was published. The present copy follows the reduction of the *Lettres Édifiantes* (vol. xii, p. 212).

439. A. D. 1744. The Amazon by Condomine.

Condomine was on the river in 1743 and 1744, and he was provided with better instruments than Fritz possessed, so that he placed points on the river astronomically with more accuracy. Kohl by a dotted line plots in on the same drafts, for comparison, the survey by Fritz.

440. A. D. 1749. The River Madeira from Southey's Papers.

From a MS. map in the British Museum, which had belonged to Robert Southey, when he was writing his *Hist. of Brazil*. It is a Portuguese map, and seems to have been made by a trader from Para.

441. A. D. 1751. The Amazon.

A corrected sketch without comment.

442. A. D. 1769. The Amazon by Father Amich.

After a Spanish MS. map by Fr. José Amich, preserved in the British Museum. Kohl thinks that Amich's advances in the cartography of this region were not well known for some time after 1769.

443. A. D. 1790. The Huallaga and Ucayali Rivers by Sobrevela.

This is a map made by Father Francisco Manuel Sobrevela in 1790, as corrected by Amadeo Chau-me'e in 1830, and published that year at Lima.

444. A. D. 1814. The Rivers Ucayale and Huallaga by Father Carballo.

Father Paule Monso Carballo belonged to the Franciscan convent of Ocopa in Peru. He used the MS. maps in the archives of his convent which had been deposited from time to time by the missionaries whom it had sent out.

445. A. D. 1825. The Amazon.

A MS. *Carta geographica das Províncias do Grão Para e Rio Negro*, Para, 1825.

446. A. D. 1852. The Negro and Naupes by A. R. Wallace.

This map, made by Wallace from observations on the river in 1850-52, was published in the *Royal Geographical Society's Journal*, xxiii.

XVI.

LA PLATA.

. Cf. sections xii. and xiv.

— A. D. 1515.

Wieser thinks that the map in Kunstmann (pl. iv.) is a Portuguese copy of a map made by Solís of this date.

447. A. D. 1547. La Plata by Nic. Vallard.

It extends south to Magellan's straits. From the well-known atlas in the Sir Thomas Phillipps's Collection, marked, "Dicu pour espoir. Nicolas Vallard de Dieppe, 1547." It has been questioned if this was not the name of the owner, rather than of the maker of the atlas, but Kohl says the writing is the same as the inscriptions contained on the maps. The tropic of Capricorn is marked, but the degrees of latitude, though traced, are not numbered. The names are mostly Portuguese, but with an occasional French turn. The bay of Rio de Janeiro is drawn but not named.

448. A. D. 1547. The Same.

An imperfect sketch, without annotation.

449. A. D. 1597. La Plata by Wytfliet.

A corrected sketch, without annotation.

450. A. D. 1598. Mouth of the La Plata.

A Dutch map, which accompanied an account of a voyage made from Holland in 1598 by the Dutch admiral, Lauren Bicker.

451. A. D. 1600. La Plata.

A Spanish map published by Jodocus Hondius in his *Atlas* in 1607.

452. A. D. 1630-35. Parana and Uruguay Rivers.

The earliest map constructed by the Jesuit missionaries, and published by Blaeu in his *Atlas*. It shows the stations which were destroyed and those which were spared in the raids of the slave hunters of St. Paulo, 1630-35.

— A. D. 1651.

La Plata in Jansson's *Minor Atlas*, ii. 421.

453. A. D. 1733. La Plata by D'Anville.

It shows both coasts of South America between 18° and 37° S. lat., and represents the continent as much narrower than on earlier maps.

454. A. D. 1733. The Same.

Without annotation.

455. A. D. 1826. Rio Vermejo by Soria.

A branch of the La Plata. This map was made from memory after Francia, the dictator of Paraguay, had seized the papers of Dr. Pablo Soria, who had conducted the exploration for a company in Buenos Ayres. The present copy follows a draft made for the Geographical Society of Paris. Cf. Sir Woodbine Parish's *Buenos Ayres*, London, 1839.

XVII.

PERU AND CHILI.

. Cf. sections ii., xii., and xiii.

456. A. D. 1532(?). Peru.

It extends 10° north and south of the equator. It is French in language, but Kohl conjectures that it follows early Spanish maps sent home by Pizarro.

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It was in Jomard's possession when Kohl made his copy. The battle of Caxamalca is sketched in the southern part of the map, and Kohl believes the original draft of the map may have been sent to Spain shortly after that event.

457. A. D. 1532(?). **The Same.**

An imperfect sketch, without annotation.

458. A. D. 1597. **Peru by Wytfliet.**

An imperfect sketch, without annotation.

459. A. D. 1601. **Peru by Herrera.**

Follows an engraved map in Herrera's *Descripcion de las Indias*, Madrid, 1601.

460. A. D. 1630. **Chili, Patagonia, and Magellan's Straits.**

After a map in the Dépôt de la Marine in Paris, made by the Father Procurator of the Jesuits in Chili, who acknowledges his indebtedness to De Lact, Herrera, and De Bry. Kohl engraves it in his *Magellan's-Strasse*.

461. A. D. 1631. **Peru by Jansson.**

This map is a published one, drawn probably eclectically from Herrera and other serviceable sources, and also possibly from Dutch reports. The latitudes are fairly accurate, but longitudes are not attempted.

462. A. D. 1646. **Chili by Ovalle.**

It includes Patagonia and the straits of Magellan; and follows Sanson's reproduction (1656) of the map of the Jesuit Ovalle, engraved in Rome in 1646. It resembles no. 460, but is richer in names, and is otherwise an advance upon that draft.

— A. D. 1651.

Peru in Jansson's *Atlas Minor*, ii. 411.

463. A. D. 1700(?). **New Spain and Peru.**

From a *Cruising Voyage round the World* by Capt. Woodes Rogers, London, 1712, where it was engraved by J. Senex. The book gives no hint of the origin of the map, other than that this and the following no. 464 were captured by Capt. Rogers in the South Seas.

464. A. D. 1700(?). **Chili.**

From the same work as no. 463, but it is not so accurate a map for the time.

465. A. D. 1703. **Chili by Delisle.**

Not a very accurate representation of the best knowledge of its time,—as Kohl thinks.

466. A. D. 1712. **Peru.**

This map is from the same sources as nos. 463 and 464, and comes between them, in making a continuous coast line. Kohl gives it the date of Rogers' book, 1712, while he dates the others about 1700.

467. A. D. 1713. **Los Moxos.**

A Jesuit map of the province showing mission stations. A reduction of it is given in the *Lettres Edifiantes*, vol. viii. (1781) p. 337.

468. A. D. 1713. **The Same.**

Without annotations.

469. A. D. 1767(?). **The River Marmore.**

An undated MS. map of the Bishopric of Santa Cruz de la Sierra in Peru, preserved in the British Museum. It resembles no. 467.

470. A. D. 1781. **The Moxos Country.**

A small sketch of the mission-sites in Moxos.

471. A. D. 1783. **The Missions of Ocopa.**

One of the earliest maps made by the missionaries of Ocopa. It is preserved in the British Museum.

472. A. D. 1796. **Peru by A. Baleato.**

A MS. map attached to an official report (preserved in the British Museum) rendered on a change of Viceroys in Peru in 1796.

473. A. D. 1835. **Excursions about Cusco.**

Maps of journeys made by General Miller, engraved in the *Royal Geographical Society's Journal*, vol. vi. (1836).

474. A. D. 1836. **The Same.**

Cancelled.

FINAL NOTE (*Aug. 11, 1886*). In adding titles of maps to the enumeration of Dr. Kohl, no attempt has been made to give all maps, not mentioned by Kohl.

During the progress of this "Contribution," there has appeared in the *Report of the Superintendent of the U. S. Coast Survey, ending June, 1884* (Washington, 1885), as Appendix no. 19 (pp. 495-617), a *History of Discovery and Exploration on the Coasts of the United States*, by J. G. Kohl, with this prefatory note: "The historical accounts here given of discovery and exploration on the coasts of the United States were prepared at the instance of Professor A. D. Bache, the superintendent of the coast survey at the time (1854) of Dr. Kohl's visit to this country. But a few years had then elapsed since the beginning of the survey on the Pacific coast, and the want of an authoritative and connected account of early exploration upon that coast was greatly felt. Trustworthy data were needed to establish the origin of geographical names, to decide disputed points of orthography, to identify localities named by early explorers, and to show the condition of discovery and fix the limit of geographical knowledge at various periods. The work undertaken by Dr.

Kohl included, in addition to the historical account, a general map illustrating it, a collection of maps showing the range and limits appertaining to each discoverer and explorer, a list of names of bays, capes, harbors, etc., with critical remarks and a catalogue of books, maps, manuscripts, etc., relative to discoveries.

⁴ In so satisfactory a manner was this work performed for the Pacific coast, that Dr. Kohl was asked to undertake a similar work for the coast of the Atlantic and the Gulf of Mexico. Upon its completion, the entire work was deposited for reference in the archives of the survey. Means for its publication as a whole not having been available, it has now been deemed advisable to publish the historical portion. To each memoir is appended a list of the collection of maps. Some of these maps are copied from originals, others from old manuscripts or rare prints, and those of more modern origin are of interest as links in the chain of historical connection." The paper of Kohl which follows is divided into three parts: I, the Atlantic coast; II, the Gulf of Mexico; III, the Pacific coast.

If these "historical accounts" had been published at the time, thirty years ago, they would have shown the best results in this line of research then produced. At the present date Kohl's views are in large part antiquated, and his knowledge is in important particulars insufficient or erroneous. The publication of the papers uncorrected and unexplained is, accordingly, an injury to his memory, and of little use to the student, except as indicating the condition of knowledge at that time. Kohl, before he died, and in the light of his increasing knowledge, spoke disparagingly of the work he did at that time.

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