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#### APPENDIX No. 1.-1886.

# DISTRIBUTION OF THE PARTIES OF THE COAST AND GEODETIC SURVEY UPON THE ATLANTIC, GULF OF MEXICO, AND PACIFIC COASTS, AND IN THE INTERIOR OF THE UNITED STATES DURING THE FISCAL YEAR ENDING JUNE 30, 1886.

, Sections.	Parties.	Operations.	Persons conducting operations.	Localities of work.
SECTION F.				
laine, New Hampshire, Vermont, Massachusetts, and Rhode Island, includ-	No. 1	Topography	A. W. Longfellow, assistant	Topographical survey of the west bank of the Saint Croix River between Calais and East- port, Me.
ing coast and seaports, bays and rivers.		÷		
	2	Topography	Eugeue Ellicott, assistant	Topographical surveys in the vicinity of Little River, Little Machias Bay, Cross Island Nar- rows, and Englishman's Bay, coast of Maine.
	3	Triangulation and topogfaphy.	C. H. Poyd, assistant; F. J. Mills.	Triangulation and topography of the coast of Maine.  Maine in the vicinity of the towns of Machias,  Machiasport, and Cutler. (See also No. 9 of this section.)
-	4	Hydrography	Lieut. E. D. F. Heald, U. S. N., assistant; Ensigns, J. M. Or chard, W. C. Canfield, J. E. Craven, W. J. Sears, and H. A. Field, U. S. N.	Hydrographic surveys of Pleasant River, Englishman's Bay, Little Kennebec River, and Machias River and Bay, coast of Maine.
•	5	Special hydro graphic exami- nations.	Lieut, G. H. Peters, U. S. N., as- sistant.	Hydrographic examinations on the coast of Maine for the Atlantic Coast Pilot. (See also Section III.)
	6	Hydrographic ex- aminations.	Lieut, John M. Hawley, U. S. N., assistant.	Hydrographic examinations in Casco Passage and York Narrows, coast of Maine. (See also Sections II, VII, and VIII.)
	7	Tidal observations	J. G. Spaulding.	Record of observations with self-registering tide- gauge continued at Pulpit Cove, North Haven
	8	Special hydro- graphic exami- nations.	Lieut. J. E. Pillsbury, U. S. N.,	Island, Penobscot Bay, Maine.  Special hydrographic examinations on the New England coast. (See also Sections II, III, and VI.)
	9	Topography	C. H. Boyd, assist int; C. H. Van Ordeo, subassimunt.	Topographic resurvey of Monomoy Point, Mas- sachusetts.
-	10	Geodetic opera- tions.	Prof. E. T. Quimby, acting assistant.	Continuation of geodetic operations in the State of New Hampshire.
	11	Geodetic apara.	Prof. V. G. Barbour, acting assistant.	Progress made in geodetic operations in the State of Vermont.
	12	Geodetic opera- tions.	Henry L. Whiting, assistant; F. W. Perkins, assistant.	Determination of trigonometrical points in the Connecticut River Valley for the topographical survey of the State of Massachusetts.
	13		Henry L. Whiting, assistant; C.	Determination of the boundary lines of towns in
	. 14	tions. Topography and	H. Yan Orden, subassistant. Henry L. Whiting, assistant	the State of Massachusetts.  Topographic and hydrographic resurvey of Cot-
H. Ex. 4	15	hydrography Topography 13	W. H. Dennis, assistant	amy Beach, Martha's Vineyard, Massachusetts. Topographic resurvey of Block Island.

Sections.	Parties.	Operations.	Persons conducting operations.	Localities of work.
SECTION II.				7 4 7
onnecticut, New York, New Jensey, Pennsylva- nia, and Delaware, in-	No. 1	Hydrographic ex- amination.	Lieut. J. E. Pillsbury, U. S. N., as- sistant.	Examination of a danger to navigation in Fisher's Island Sound. (See also Sections I, III, and VI.)
luding cosst, bays, and				,
*	2	Topography	W. L Vinal, subassistant; W. B. Mapes, acting aid.	Topographical resurvey of the south shore of Long Island Sound from Roanoke Landing westward. (See also Section VII.)
<u>.</u>	3	Hydrography	Lient. F. H. Crosby, U. S. N., assistant; Ensigns J. S. Watters, G. W. Street, and C. E. Sweeting, U. S. N.	Additional soundings, inshore hydrography, Long Island Sound, from Hammonassett Point to SW. Ledge Light-house. (See also Section VIII.)
,	4	Тородгарыу	W. H. Dennis, assistant; Lieut. G. Lange, Norwegian General Staff; E. A. Trescot.	Topographical resurvey of the north shore of Long Island Sound from Mulberry Point to Morgan's Point.
• .	, , 5	Tidal observations		Tidal observations with an automatic tide-gauge at the Light-house on the New Haven Break
•	3			water; also at Willet's Point, western end of Long Island Sound.
u	6	Hydrography	Lieut, Sumner C. Paine, U. S. N., assistant; Ensigns T. D. Griffin and C. E. Sweeting, U. S. N.	Hydrographic resurvey of the north shore of Long Island Sound from Welch's Point to Sheffield Island.
	7	Triangulation	Gershom Bradford, assistant	Extension of the triangulation for the resurvey of Long Island Sound from Eaton's Point of the north shore of Long Island to the east
	,			ward; also from the Hudson River to beyone Throg's Neck.
	8	Topography	Charles Hosmer, assistant 2J. II. Turner, aid.	Continuation of the topographical resurvey of the north shore of Long Island Sound between Norwalk River and New Rochelle.
: <b>2</b>	9	Topography	W. C. Hodgkins, assistant	Topographical resurvey of the south shore o Long Island Sound continued from Eaton' Nock to Cold Springs. (See also Section IV.
,	10	Hydrography	Lieut. D. D. V. Stuart, U. S. N., assistant; Ensigns W. G. Han- num and M. Johnston, U. S. N.	In shore hydrography of Long Island Sound be tween Sheffield Island Light and Greenwich Point.
	11	Topography	E. Hergesheimer, assistant; J. H. Gray, aid.	Topographic resurvey of the East River from Red Hook towards Throg's Neck.
. •	12	Topography	C. T. Iardella, assistant	Topographic resurvey of the East River and o the western part of Long Island Sound con tinued.
	13	Hydrography	Lieut. John M. Hawley, U. S. N., assistant; Lieut. D. D. V. Stu- art, U. S. N.; Ensigns F. H. Sherman, A. W. Dodd, and R.	Hydrographic resurvey of the upper part o New York Bay and of the East River to Throg' Neck.
• • • • • • • • • • • • • • • • • • •	14	Тородгаріву	O. Bitler, U. S. N. D. B. Wainwright, assistant; James A. French, acting aid.	Topegraphic survey of the shore lines of the North River, New York; also of shore lines
				on Long Island and Staten Island. (See als Section IV.)
	15	Hydrography	Lieut. William G. Cutler, U. S. N., assistant; Ensigns E. E. Wright and A. G. Rogers, U. S. N.	Hydrographic resurvey of the North River and of Upper New York Bay, New York.
	16	Hydrography	Lieut. C. P. Perkins, U. S. N., assistant; Ensigns W. J. Sears, W. B. Flotcher, and C. S. Wil- liams, U. S. N.	Special hydrography for the determination of tidal levels in the Hudson, Harlem, and East Rivers, and in Flushing, Little Neck, an Navary Born
	17	Magnetic observa- tions.	James B. Baylor, subassistant	Newark Bays.  Magnetic observations at stations in New York  New Jersey, Pennsylvania, and Delaware  (See also Sections V, VIII, and XIV.)
	18	Physical hydrog- raphy.	Henry Mitchell, assistant; Henry L. Marindin, assistant; Mar- cus Baker, assistant; Lient. F. S. Carter, U. S. N., assistant.	Physical hydrography, New York Harbor re survey. An epitome of results for tida flowage through New York Harbor. Progres of other investigations.

#### UNITED STATES COAST AND GEODETIC SURVEY.

#### APPENDIX No. 1—Continued.

Sections.	Parties.	Operations.	Persons conducting operations.	Localities of work.
Section II—Continued.	No. 19	Topography	Joseph Hergesheimer, assistant; R. M. Rienden, eeting aid.	Topographic resurvey of the shore-lines of Coney Island, Barren Island, and Rockaway Beach,
	20	Triangulation	R. E. Halter, assistant	New York Lower Bay. (See also Section VI.) Triangulation of Arthur Kill. (See also Section IX.)
	21	Topography	E. L. Taney, aid	Topographical resurvey of the shore-lines of
		•	•	Bergen Neck, lower part of Newark Bay, the Staten Island shore of Kill van Kull, and of
	22	Tidal observations	***************************************	Sandy Hook. (See also Section VIII.)  Tidal observations with automatic tide-gauges
·	23	Topography	R. M. Bache, assistant	at Governor's Island and at Sandy Hook.  Topographical resurvey of the shore-line of Staten Island from Stapleton southwestward.
	24	Hydrography	Licut. G. C. Hanus, U.S. N., assistant; Ensigns C.S. Ripley, E.	Hydrographic resurvey of New York Lower Bay and entrance. (See also Section V.)
			F. Leiper, F. R. Brainard, G. R. French, J. M. Elliott, and B. E.	,,
,	25	Determinations of gravity.	Thurston, U.S. N. Charles S. Peirce, assistant	Gravity determinations and researches at sta-
		gravity.	•	tions between the Hudson and the Mississippi, and between the forty-first and forty-third
	26	Geodetic opera- tions.	Prof. Mansfield Morriman, acting assistant.	parallels. (See also Sections III and XIV.)  Continuation of the primary triangulation in the eastern part of the State of Pennsylvania.
	27	Reconnaissance	O. H. Tittmann, assistant; John E. McGrath, aid.	Reconduissance for the extension of the trian- gulation in the eastern and northeastern parts
			,	of the State of Ponnsylvania towards the boundary between Pennsylvania and New
	. 28	Reconnaissance	Prof. L. II Barnard, acting assist ant.	York. (See also Section VIII.) Reconnaissance for triangulation in the south- ern and western part of the State of Pennsyl-
	29	Boundary survey .	C. H. Sinclair, assistant	vania.  Completion of the survey of the parallel boundary between the States of Pennaglyania and
•	30	Physical hydrog- raphy.	Henry L. Marindin, assistant	West Virginia.  Delaware River above Petty's Island. Phys.
	81	Physical hydrog- raphy.!	Spencer C. McCorkle, assistant	ical hydrography.  Formation and movement of ice in Delaware River and Bay.
	32	Special hydrogra- phy.	Charles Junken; Charles A. Junken.	Special survey of the Schuylkill River between Gray's Ferry and Rambo Point.
	33	Geodetic opera- tions.	Prof. E. A. Bowser, acting assistant.	Continuation of the triangulation and reconnais- sance of the southern part of the State of New
*	34	Topography	C. M. Bache, assistant	Jersey.  Continuation of the topographical resurvey of the coast of New Jersey.
	35	Тородгарһу	R. M. Bache, assistant	Completion of the topographic resurvey of the New Jersey shore of Delaware Bay.
	36	Physical hydrog- raphy.	Henry Mitchell, assistant	Changes in the Joe Flogger Shoal, Delaware Bay.
	37	Hydrography	Lieut. F. H. Crosby, U. S. N., assistant; Ensigns T. M. Brumby,	Completion of the hydrographic resurvey of lower Delaware Bay and entrance. (See also
		:	A. L. Hall, J. H. Hetherington, F. W. Kellogg, J. S. Watters,	Section VIII.)
SECTION III.		·	and G. W. Street, U. S. N.	
Maryland, District of Co- lumbia, Virginia, and West Virginia, including bays, sea-ports, and rivers	No. 1	Special survey	O. H. Tittmann, assistant; J. H. Turner, aid.	Tracing the Port-Warden lines of Baltimore Harbor. (See also Sections II and VIII.)
2 4 - 10 - 10 march 144 018	2	Magnetic observation.	J. B. Baylor, subassistant	Magnetic observations at Fort McHenry (See also Sections II, V, VIII, and XIV.)

#### APPENDIX No. 1—Continued.

Sections.	Parties.	Operations.	Persons conducting operations.	Localities of work.
SECTION III—Continued.	No. 3	Magnetic observations.	Charles A. Schott, assistant	Magnetic observations at the station on Capitol Hill, Washington.
>	4	Triangulation	C. H. Sinclair, assistant	Connection of the Washington Monument with
	, [			the triangulation of the District of Colum-
				bia. (See also Sections II, XV, and XVI.)
	5	Topography	John W. Donn, assistant; J.A.	.Continuation of the detailed topographical sur-
			Flemer, aid.	vey of the District of Columbia.
,	6	Gravitation work.	Charles S. Peirco assistant	Pendulum oscillations at the Smithsonian Insti-
				tution, Washington. (See also Sections II and
ů.		7.		XIV.)
	7	Hydrographic ex-	Lieut. G. H. Peters, U. S. N., as-	Hydrographic examinations for the Coast Pilot
*	1	aminations.	sistant.	in Chesapeake Bay and its tributaries.
	8	Hydrographic ex-	Lieut. J. E. Pillsbury, U. S. N., as-	Search for shoal reported off Assateague Light,
	ł	aminations.	sistant.	Va. (See also Sections I to VI.)  Examination of line of geodesic leveling between
•	9	Geodesic leveling.	J. B. Weir, assistant; John Nel-	Richmond and Fredericksburg, Va. (See also
*			son, aid.	Section VIII.)
	١	n	C W Similain assistant	Completion of the survey of the boundary line
·	10	Boundary survey.	C. H. Sinclair, assistant	near the 40th parallel between West Virginia
	1	V	1	and Pennsylvania. (See also Sections II, XV,
•	/	•		and XVI.)
SECTION IV.	1/	ļ		
North Carolina, including	No. 1	Special hydrog-	Lieut. Francis Winslow, U.S. N.,	Special hydrography for the State of North Car-
coast, sounds, seaports,	110, 1	raphy.	assistant ; Lieut, Burns T. Wall-	olina. Surveys of oyster beds.
and rivers.		1	ing, U. S. N.; Ensign J. C.	
			Drake, U. S. N.	
-	2	Triangulation and	1	Connection of the triangulations of 1853 and 187
	i	beach measure-		on the coast of North Carolina. Beach meas
	1	ment.		urement near the boundary line between North
	1			and South Carolina. (See also Section II.)
	3	Triangulation	. D. B. Wainwright, assistant	. Junction of the triangulation at the mouth o
•				Cape Fear River with that at Little River In
	1		. 10	let. (See also Section II.)
	4	Hydrography	Lieut. J. E. Pillsbury, U. S. N.,	Hydrographic examinations in the vicinity of
	1		assistant; Ensigns T. D. Griffin,	Frying-Pan Shoals. (See also Sections I, II
	1		R. M. Hughes, A. G. Rogers,	
		,	J. H. Hetherington, and F. R.	-
	1		Brainard, U.S. N.	
SECTION V.			İ	
South Carolina and Geor	No. 1	Magnetic obser	J. B. Baylor, subassistant	Magnetic observations at Aiken and at Charle
gia, including coast, sea	-	vations.		ton, S. C., and at Savannah, Ga. (See als
water channels, sounds	,			Sections II, III, VIII, and XIV.)
harbous and rivers.	- [		·	
•				
		2 Hydrography	Lieut. G. C. Hanus, U. S. N., as	Hydrographic examinations in North and Sou
		z Zydiogiapay	sistant; Ensigns C. S. Ripley	
•			G. R. French, and E. F. Leiper	· · · · · · · · · · · · · · · · · · ·
			U. S. N.	(See also Section II.)
SECTION VI.	.			•
Peninsula of Florida, from	n No.	1 Physical hydrog	Lieut. J. E. Pillsbury, U. S. F.	· · ·
	1		assistant; Ensigns T. D. Griffin	
Saint Mary's River, o the east coast, to an	1	raphy.	R. M. Hughes, A. C. Rogers	
including the Anclot	1		J. H. Hetherington, and F. B	11
Keys, on the west coas			Brainard, U. S. N.	seventeen feet spot in Key West Harbor. (S
with the coast ap	i i		Diaman, C. U. II.	also Sections I, II, III, and IV.)
proaches, reefs; key			1	200 0000000 al c-l vest (1970 c 11)
seaports, and rivers.				
comporte, and micro.	1	2 Beach measur	e- Joseph Hergesheimer, assistant	; Beach measurement and triangulation, with
	1	ment, triangul	a- E. D. Preston, subassistant;	J. servations for latitude and szimuth on the we
	} .	tion, and obse	r- H. Gray, aid.	coast of Florida between Cape Sable and Ca
:	į	vations for la	ti-	Romano. (See also Section II.)
-	1	tude and a	zi-	1
	1	muti.	<u> </u>	

#### APPENDIX No. 1—Continued.

Sections.	Parties.	Operations.	Persons conducting operations.	Localities of work.
SECTION VII.				£ :
Peninsula of Florida, west coast, from Anclote Keys to Perdido Bay, includ- ing coast approaches,	No. 1	Topography	W. I. Vinal, subassistant; W. B. Mapes, acting aid.	Topographical survey of the west coast of Florida north of Anclote Keys. (See also Section II.)
bays, and rivers.	2	Hydrography	Lieut. J. M. Hawley, U. S. N., as-	Hydrographic survey off the west coast of Flor
•			sistant; Ensigns E. E. Wright, A. W. Dodd, John E. Craven, R. O. Bitler, and Harry A. Field,	ida to the north of the Ancloto Keys. (See also Sections I and VIII.)
• .			U.S. N.	
SECTION VIII.			0.37 89.4	
Alabams, Mississippi Louisiana, and Arkan- sas, including Gulf coasts, ports, and rivers.	!	Triangulation	O. H. Tittmann, assistant; J. E. McGrath and J. Henry Turner, aids.	Progress made in the extension of the primary triangulation in Northern Alabama towards the Gulf of Mexico. (See also Sections II and III.)
	2	.Geodesic leveling.	John B. Weir, assistant; John Nelson, aid.	Line of geodesic levels run from Mobile to Nev Orleans, and from Meridian, Miss., to Quit man, Miss. (See also Section III.)
• "	3	Hydrography	Lieut. John M. Hawley, U. S. N., assistant; Eusigns A. W. Dodd, John E. Craven, R. O. Bitler,	Hydrographic examination in the vicinity of the Chandeleur Islands, and hydrographic resurvey of Horn Island Pass. (See also Sections I and VII.)
· · · · · · · · · · · · · · · · · · ·	4	Triangulation, to- pography, and magnetic ob- servations.	rand Harry Field, U. S. N. F. W. Perkins, assistant; E. L. Taney, acting assistant; J. B. Baylor, subassistant; G. F. Bird, aid.	Triangulation, topographical survey, and mag notic observations on the coast of Louisians between Barataria Bay and the Mermonton Rivers. (See also Sections I and II.)
	5	i	Lieut. F. H. Crosby, U. S. N., as- sistant; Lieut. F. S. Carter, U. S. N.; Ensigns J. S. Watters, G.	Hydrographic surveys on the coast of Louisian from Southwest Pass westward, in Baratari Bay, and in Coté Blanche Bay. (See also See
			W. Street, and C. E. Sweeting, U. S. N.	tion II.)
SECTION IX.				
Texas and Indian Terri- tory, including Gulf coast, bays, and rivers.		Base measurement and triangulation.	R. E. Halter, assistant	Measurement of a base-line and commection of this line with the triangulation near Browns ville, Tex. (See also Section II.)
SECTION X.				
California, including the coast, bays, harbors and rivers.	1	Triangulation and topography.	A. F. Rodgers, assistant; Isaac Winston, aid.	Triangulation and topography of the coast of California between Newport Bay and Sa Mateo.
	2	vations.	Carlisle Terry, jr., subassistant; R. A. Marr, subassistant.	Record of magnetic observations continued wit self-registoring apparatus at Los Angeles, Ca Reconnaissance for the site of a primary base
	-	Reconnaissance for site of base- line.	J. S. Lawson, assistant; E. F. Dickins, assistant.	line in Los Angeles County, California.
	4	Triangulation and topography.	Stehman Forney, assistant	Continuation of the triangulation and topography of the south coast of California between Estero Point and Point Sur.
		Triangulation	James S. Lawson, assistant; P. A. Welker, aid.	Occupation of stations in continuation of the primary triangulation of the coast of California north of Point Concepcion.
		Triangulation and astronomical and magnetic work.	Dickins, assistant; Fremont	Connection of the triangulation depending upon the Pulgas Base with that depending upon the Yolo Base. Occupation of stations in continuation of the primary triangulation near the continuation near the con
		7 Shore-line sur-	A. F. Rodgers, assistant; Isaac	southern coast of California. (See also Setion XI.)  Shore line resurvey of Carquines Straits and Sa
		veys.	Winston, aid.	Pablo Bay. Resurvey of the shore-line topol raphy of the Golden-Gate and approaches.
		8   Tidal observation	s Emmet Gray, observer	Tidal record continued at self-registering tide gauge station at Saucelite, Bay of San Fracisco.
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#### APPENDIX No. 1—Continued.

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Sections.	Parties	Operations.	Persons conducting operations.	Localities of work.
SECTION X—Continued.		Astronomical observations.	George Davidson, assistant James S. Lawson, assistant Fremont Morse, P. A. Welker, and C. B. Hill, aids.	the sun Mon la rose
	10	Hy 17	Lieut. E. D. Taussig, U. S. N., as sistant; Lieuts. David Peacock and C. F. Pond, U. S. N.; En- signs Simon Cook, W. L. Bur-	off Cape Mendocino, and to the southward.
Section XI.			dick, J. A. Bell, F. A. McNutt, J. H. Shipley, and C. W. Jun- gen, U. S. N.	
Oregon and Washington Territory, in cluding coast, interior bays, ports and rivers.		Triang ulation, topography, and hydrography.	Louis A. Sengteller assistant	. Completion of the connection of the Koos Bay and Umpquah River triangulations. Progress of the topographic and hydrographic survey
· · · · · · · · · · · · · · · · · · ·	2	Hydrography	Lieut. Commander A. S. Snow, U. S. N., assisjant; Lient. G. Blocklinger, U. S. N.; Ensigns F. M. Bostwick, W. P. White,	of the Umpquah River.  Hydrographic surveys in Tillamook Bay, off the coast in that vicinity, and in Columbia River.  (See also Section XII.)
•	3	Hydrography	J. H. Shipley, and C. W. Jungen, U. S. N.	•
	4	Astronomical and magnetic obser- vations.	Cleveland Rockwell, assistant  George Davidson, assistant; Cleveland Rockwell, assistant.	Continuation of hydrographic work in the Columbia and Willamette Rivers.  Observations for latitude and azimuth, and for magnetic declination and horizontal intensity at stations in Oregon and Washington Terri-
•	5	Inspection and reconnaissance.	George Davidson, assistant	Inspection of field-work on the coasts of Oregon and of Washington Territory. Recognition
	6	Tri. (ion and topography.	J. F. Pratt, assistant	Triangulation and topography of Possession Sound completed. Completion of the topography
•	7	Hydrography	Licut. C. F. Forse, U. S. N., assist-	graphical purvey of Snohomish River. Tele- graphic determination of the longitude of Ta- toosh Island Light.
			ant; Ensign J. N. Jordan, U. S. N.	Hydrographic surveys in Admiralty Inlet and in Pugot Sound.
Section XII.	,	topography; de- termination of longitude.	J. J. Gilbert, assistant	Triangulation and topography of Rosario Strait and Burrows Bay. Longitude signals ex- changed with Tatoosh Island Station.
aska, including the coast and the Alcutian Islands.	No. 1	Hydrographic surveys, with astronomical and topographic work.	Lieut. Richardson Clover, U. S. N., assistant; 'Lieut. Commander A. S. Snow, U. S. N., assistant; Lieut. J. H. Helm, U. S. N.; R. A. Marr, subassistant, C. & G.	Hydrographic surveys, determinations of geo graphical positions, triangulation and topog- raphy in Southeastern Alaska.
			S.; Ensigns Walter McLean, C. C. Marsh, A. P. Niblack, D. P. Menefee, and T. G. Dewey, U. S. N.	and p
SECTION XIII.	2   1	Cidal observations.	11.0	Sories of tidal observations with self registering tide-gauge continued at Saint Paul, Kadiak Island, Alaska.
tucky and Tennessee	No. 1 P	rimary triangu- lation and re- connaissance.	A. T. Mosman, assistant	Extension westward of the primary triangula- tion and reconnaissance near the 39th parallel in Ohio and Kentucky. (See also Section
	2 G	codetic apera-	Prof. A. H. Buchanan, acting assistant.	XIV.) 7 Occupation of stations in continuation of the triangulation of the State of Tennessee,

#### APPENDIX No. 1—Continued.

Sections.	Parties.	Operations.	Persons conducting operations.	Localities of work.
Section XIV.			· · · · · · · · · · · · · · · · · · ·	
Ohio, Indiana, Illi nois, Michigan and Wisconsin.	No. 1	Primary triangu- lation and re- connuissance.	A. T. Mosman, assistant; W. B. Fairfield, extra observer.	Extension westward of the primary triangulation and reconnaissance near the 39th parallel in Ohio and Kentucky. (See also Section XIII.)
	2	Geodetic opera-	Prof. R. S. Devol, acting assistant.	Occupation of stations for continuing the tri- angulation of the State of Ohio.
,	3	Triangulation.	George A. Fairfield, assistant; John B. Weir, assistant; F. P. Bacon, recorder.	Extension to the eastward in the State of Indiana of the transcontinental triangulation near the 39th parallel.
	4	Geodetic opera-	Prof. J. L. Campbell, acting assistant.	Continuation of triangulation and reconnaissance in the State of Indiana.
		Determinations of gravity.	Charles S. Peirco, assistant.	Determinations of gravity at Ann Arbor, Mich., and at Madison, Wis. (See also Sections II and III.)
	6	Magnetic observations.	James B. Baylor, subassistant	Observations for magnetic declination, dip, and intensity at a station in Detroit, Mich. (See also Sections II, III, V, and VIII.)
ļ	7	Geodetic opora- tions.	Prof. J. E. Davies, acting assistant.	Continuation of the triangulation of the State of Wisconsin.
	8	Latitude observa-	F. H. Parsons, subassistant	Observations for latitude at Madison, Wis. (See also Section XV.)
Section XV.				
Missouri, Kansas, Iowa, Nobraska, Minnesota, and Dakota.	No. 1	Triangulation	F. D. Granger, assistant, E. D. Preston, subassistant.	Extension westward of the primary triangula- tion in Missouri and Kansas, near the 39th par- allel.
† Section XVI.	2	Determinations of latitude and longitude.	George W. Dean, assistant; Edwin Smith, assistant; C. H. Sinclair, assistant; F. H. Parsons, subassistant; E. D. Preston, subassistant.	Differences of longitude by telegraphic signals between Kansas City, Mo., Ellsworth and Wallace, Kans., and Colorado Springs, Colo. Latitude observations at Ellsworth and Wallace. (See also Section XVI.)
Nevada, Utah, Colorado, Arizona, and New Mex-	No. 1	Triangulation	William Eimbeck, assistant	Transcontinental triangulation near the 39th parallel carried to the eastward from stations
ico.	2	Longitudo de- terminations and magnetic observations.	Edwin Smith, assistant; C. H. Sinclair, assistant.	in Central Utah.  Determinations of the longitudes of Santa Fé.  N. Mex., and Gunnison, Colo. Magnetic observations at the same stations. (See also Section XV.)
SPECIAL OFFICATIONS.		Conference with the Inspector of	E. B. Lefavour	
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