

- through Civil War; hon. mustered out Apr. 30, 1866; capt. 14th U. S. Inf. Jan. 22, 1867; maj. 11th Inf. Aug. 16, 1894; trans. to 9th Inf. May 29, 1897; lt. col. 14th Inf. Apr. 26, 1898; brig.-gen. U. S. V., May 4, 1898; hon. discharged Apr. 14, 1899; col. 23d Inf. Oct. 19, 1899; brig. gen. Feb. 2, 1901; maj. gen. July 21, 1902; gen. mgr. and v. p. Nicaragua Canal Constrn. Co., 1900-3; retired by operation of law, 1903; clubs—Metropolitan, Chevy Chase; add., The Connecticut, Washington, D. C.
- DEEKS, W. E., physician; born Morrisburg, Canada; grad. McGill Univ., studied in London, Berlin and Vienna; worked in Canada and United States; went to Isthmus 1906, apptd. head of medical clinic Ancon hospital.
- de LESSEPS, Count FERDINAND, builder of Suez Canal and projector of Panama Canal; born Versailles, Nov. 10, 1805; died Dec. 7, 1894; son of Mathieu and Catherine (de Grivegnée) de Lesseps; mother was a grand-aunt of Empress Eugenie; married Mlle. Agathe Delamalle, 1837; married Mlle. Autard de Bragard, 1869; ed. Coll. of Henry IV, Paris; commissary in army, 1818-20; vice consul at Lisbon, 1825-27; held positions in administration of Foreign Affairs at Tunis, Egypt, Holland and Spain; Minister to Spain 1848; while in Egypt became interested in project for a canal across Isthmus of Suez; returned to Egypt in 1854 and submitted sketch for canal to Saïd Pasha; the sketch was approved and active work begun 1859; canal completed under his supervision 1869; made survey for canal across Panama 1879; investigated the route through Nicaragua; decided in favor of Panama; as projected by him canal was to be a sea level connection between the two oceans; company became bankrupt after much work was done, and de Lesseps sentenced to a term of imprisonment; elected mem. Acad. of Sciences, 1875, and of Académie Française, 1884; Chevalier Legion of Honor; author of a number of books, most of them concerning the Suez and Panama Canals. His memoirs, written for his children, have been translated into English.
- DERRICK, C., apptd. asst. engr., charged with the design of movable dams, Culebra, Sept. 15, 1908.
- DESHON, GEORGE D., lt. col. med. corps., U. S. A., supt. Ancon hospital, The Panama Canal; born Aug. 5, 1864; grad. U. S. Mil. Acad.; 2d lt., July 1, 1886; resigned, Mar. 21, 1890; apptd. asst. surg., U. S. A., May 5, 1892; capt., asst. surg., May 5, 1897; maj. surg., Dec. 5, 1904; lt. col., Aug. 6, 1912; add., Ancon, Canal Zone.
- DEVOL, CARROLL A., brig. gen. qmr. corps, U. S. A.; born in Washington Co., Ohio, April 17, 1859; ed. Pennsylvania Mil. Col. and in 1879 commissioned 2d lt. U. S. A.; 1st lt. 1886; capt. 1896; major 1902; lt. col. 1909; col. 1911; apptd. brig. gen. qmr. corps, 1913; served with credit in Philippines; stationed in San Francisco at time of the great earthquake and at request of City Council took charge of receipt and distribution of all supplies; in June, 1908, ordered to Canal Zone to take charge of depts. of Labor and Quarters, and Material and Supplies; add. office Qmr. Gen., Washington, D. C.
- DIAZ, PEDRO A., twice gov. of Panama; born City of Panama, July 5, 1854; ed. pub. schools of Panama; married Kerima Guterrez, 1879; apptd. secy. treas. 1910.
- DICKINSON, JACOB McGAVOCK, born Jan. 30, 1857, at Columbus, Miss.: son of Henry and Anna (McGavock) Dickinson; ed. Nashville Univ., and at law school, Columbia Col. N. Y.; married Martha Overton, of Nashville, Tenn., Apr. 20, 1876; admitted to bar 1874; practiced at Nashville 1874-99; Chicago, 1899-09; served several terms by spl. commn. on supreme bench of Tenn.; asst. atty. gen. of U. S., 1895-7; counsel for U. S. before Alaskan Boundary Tribunal, 1903; gen. solicitor I. C. R. R. Co., 1899-01, and gen. counsel 1901-9; Secy. of War in cabinet of Pres. Taft, Mar. 4, 1909-May, 1911, in which capacity he was active in prosecuting the work of building the canal; clubs—Wayfarers, Cliff Dwellers, Industrial (Chicago), Metropolitan, University (Washington); add. Stahlman Bldg., Nashville, Tenn.
- DICKSON, TRACY CAMPBELL, col. U. S. A.; born Independence, Iowa, Sept. 17, 1868; apptd. U. S. Mil. Acad. 1888; on graduating commissioned 2nd lt. artillery corps, two years later transferred to ord. dept.; 1st lt. 1894; capt. 1901; major 1906; lt. col. 1912; col. 1915; in 1910 ordered to Canal Zone, duty being to inspect shops at various points; detached Mar. 7, 1914; add. ord. dept. Sandy Hook Proving Ground, Ft. Hancock, N. J.
- DISMUKES, DOUGLAS E., comdr., U. S. N.; capt. of the port, The Panama Canal; born Oct. 1, 1869; grad. U. S. Nav. Acad.; add. Cristobal, Canal Zone.
- D'OLIER, WILLIAM LIVINGSTON; pres. D'Olier Eng. Co., pres. D'Olier Centrifugal Pump and Machine Co., Phila., Pa.; as construction engineer built steam power plants at Gatun and Miraflores for Isthmian Canal Com.; born Phila., Pa., Dec. 9, 1871; son of Henry and Kate B. D'Olier; ed. Phila. High School; married Harriet Coombs Harvey, Phila., Dec. 12, 1900; until 1894 engaged in cotton and cotton manufacturing business; invented and patented improvements on extractors and centrifugal machines in sugar, textile and powder industries; designed and invented sewage purification apparatus; mem. Am. Soc. Mech. Engrs.; mem. Albany Soc. C. E.; mem. Permanent International Assn. Nav. Cong.; mem. Phila. Manufacturers Club; add. Morris Bldg., Phila., Pa.
- DONAHUE, JOHN V., apptd. asst. supt. of constrn., Chagres dist., Central div., May 1, 1910; born Grafton, O., went to Isthmus 1907, as foreman construc., Culebra.
- DOYING, WILLIAM ALBERT EDWARD, inspecting engr. The Panama Canal since 1908; born Danville, Quebec, Can., June 13, 1867; son of Ira E. and Sarah J. Doying; married Caroline A. Huttner, N. Y. City, June 25, 1900; mem. cl. of 1900, Stevens Inst.; machinist 1889-90; elec. contracting, Summit, N. J., 1891-3; supt. erection hotel bldgs. and cottages, Summit, N. J., 1894-6; drafting dept., Western Elec. Co., 1896-7; gen. engineering work, Met. St. Ry., N. Y., 1895-

- 05; squad master on sub-stations and carhouses, expert in courts on construction and equipment; asst. insp. engr., Isthmian Canal Comn., New York, 1905-8; mem. committees on standardization of elec. lamp specifications, Portland cement specifications, and rubber specifications; mem. Am. Soc. Mech. Engrs., Am. Soc. Civ. Engrs., Am. Inst. Elec. Engrs., Wash. Soc. Engrs., Nat. Geo. Soc., Sons Am. Revolution; res. 3525 14th St., office The Panama Canal, Wash., D. C.
- DRAKE**, Sir FRANCIS, British admiral; born near Tavistock, Devonshire, England, about 1545. Early went to sea, and was a captain under Hawkins at the attack on San Juan de Ulloa, 1570, where he displayed great gallantry. He became the terror of the Spanish and captured many ships, and looted several settlements in America. In one of his expeditions he circumnavigated the globe. Died on board his ship at Nombre de Dios, Isthmus of Panama, Jan. 28, 1595.
- DURAN**, F. MUTIS, apptd. ch. jus. Supreme Court, Canal Zone, June 1, 1905; court dissolved 1914.
- DURHAM**, H. W., apptd. res. engr., bu. waterworks, sewers and roads, Canal Zone, 1904.
- DUTROW**, HOWARD V., physician; born Charlesville, Md.; grad. Univ. of Md. 1904 as M. D.; went to Isthmus 1905 on staff of Colon hospital; asst. physician Culebra district; physician Corozal; assistant eye and ear clinic Ancon hospital.
- E**
- EARNSHAW**, GEORGE EDWARD, pres. Earn Line Steamship Co., operating between United States ports and Panama; born Cambridge, Eng. May 29, 1846, son of Rev. Samuel and Anna (Watt) Earnshaw; ed. private tuition in Eng. and private schools in Germany; married Helen Heffelfinger, June 14, 1900, at Phila., Pa.; was an export merchant at Birmingham, Eng. from 1870 to 1884; in 1884 removed to Phila. and joined in establishing the Earn Steamship Co.; mem. Hist. Soc. of Pa., Pa. Acad. Fine Arts, Am. Acad. Political and Social Science, Art Club of Phila., Phila. Country Club, Marion Cricket Club; res. 282 South 23d St., Phila.
- EASON**, J. J., gen. foreman in charge, car and foundry, mech. div., dept. of Construction and Engineering, The Panama Canal since 1910.
- EDWARDS**, CLARENCE R., brig. gen. U. S. A., ch. Wash. Office, Isthmian Canal Comn., June 21, 1905-Nov. 15, 1905; born Jan. 1, 1859; grad. U. S. Mil. Acad., 2d lt., June 13, 1883; 1st lt., Feb. 25, 1891; capt., July 30, 1898; brig. gen. ch. bu. insular affairs, June 30, 1906; brig. gen. May 12, 1912; add., Tivoli Hotel, Ancon, Canal Zone.
- EHLE**, BOYD, apptd. res. engr., Canal Zone, 1904.
- EINSTEIN**, JAMES H., pres. and gen. mgr., Tower Manufacturing and Novelty Co., New York, N. Y., contractors for office supplies for Canal Zone; born St. Louis, Mo., 1870; ed. pub. schools St. Louis; married Augusta Liebknecht, 1904; club—Arkwright; add. 326 Broadway, New York, N. Y.
- ELLIOTT**, MALCOLM, prin. hydrographer, div. of meteorology and river hydraulics, 1907-10.
- EMBREE**, C. J., asst. engr., elec. and mech. engr., the Panama Canal, since Oct. 26, 1913; add. Culebra, Canal Zone.
- ENCISO**, MARTIN FERNANDEZ de, Spanish lawyer; born 1470; went to America with Bastidas in 1500, practiced law in Santo Domingo, and joined Ojeda in colonizing Tierra Firme in 1509; founded Antigua, but was deposed by Balboa; went to Spain, returning with Pedrarias, and led expedition against Indians of Cenú; wrote first book in Spanish on the New World; died 1528.
- ENDICOTT**, MORDECAI T., rear adm., U. S. N., mem. Isthmian Canal Comn., Apr. 1, 1905-March 15, 1907; born May's Landing, N. J., Nov. 26, 1844; son of Thomas D. and Ann (Pennington) Endicott; ed. prep. parochial school; C. E., Rensselaer Poly. Inst., 1868; married Elizabeth Adams, May 29, 1872; apptd. civ. engr., U. S. N., 1874; apptd. mem. Nicaragua Canal Comn., 1895; apptd. ch. bu. yards and docks, navy dept., 1898 with rank of commodore; later advanced to rank of rear adm.; retired 1906 but continued on active duties until 1909; mem. Am. Soc. C. E. (pres. 1911); clubs—Army and Navy, Cosmos, (Washington); Engineers' (New York); add. 1330 R St., Wash., D. C.
- ERNST**, OSWALD H., brig. gen., U. S. A., mem. Isthmian Canal Comn., Apr. 1, 1905-June 30, 1906; born nr. Cincinnati, O., June 27, 1842; son of Andrew Henry and Sarah H. Ernst; attended Harvard 1858-60; grad. U. S. Mil. Acad. 1864; married Elizabeth Amory, of Roxbury, Mass., Nov. 3, 1866; 1st lt. engr., 1864; capt. Mar. 1867; maj., May 5, 1882; lt. col., Mar. 31, 1895; brig. gen. vols., May 27, 1898-June 12, 1899; col. Feb. 20, 1903; brig. gen. June 27, 1906; mem. Isthmian Canal Comn., 1899-1901 and 1905-6; pres. Miss. River Comn., 1903-6; dir. Panama Railroad since 1905; retired June 27, 1906; mem. Loyal Legion, Mil. Order Foreign Wars, Am. Soc. C. E.; clubs—Metropolitan Chevy Chase; author Manual of Practical Military Engineering, etc.; add. 1321 Conn. Av., Washington, D. C.
- ESPINOSA**, MANUEL B., leader in movement for independence of Panama; native of Cartagena; ed. priv. schools Cartagena; moved to Panama in 1873 and began business for himself in 1881; important figure in commercial world since that time; owns largest drug business on the Isthmus, and has large real estate holdings; assisted greatly in development of Panama; married in 1884 to Elisa Remon; add. Ancon, Canal Zone.
- F**
- FAIRBANKS**, CHARLES WARREN, ex-V. P. of U. S.; born on farm nr. Unionville Center, O., May 11, 1852; son of Loriston M. and Mary A. (Smith) Fairbanks; A. B., Ohio Wesleyan Univ., 1872; A. M., 1875; (LL.D. 1901; LL.D. Baker Univ., 1903, Ia. State Univ., 1903, Northwestern, 1907); was agent for the Associated Press at Pittsburgh and Cleveland,

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- 1872-4; admitted to Ohio bar 1874 and established practice at Indianapolis; married Cornelia Cole, of Marysville, O., 1874 (she died Oct. 24, 1913); chmn. rep. state convs. 1892, 1898; del. at large rep. nat. convs. St. Louis, 1896 (temporary chmn.), Phila. 1900 (chmn. com. on resolutions), Chicago, 1904 (unanimously nominated for v. p.), Chicago, 1912 (chmn. com. on resolutions); Rep. caucus for U. S. senator, 1893, but defeated by David Turpie, dem.; elected U. S. senator from Ind., for terms 1897-03, 1903-09; resigned Mar. 4, 1905; elected V. P. of U. S. on ticket with Theodore Roosevelt, Nov. 1904, term expiring Mar. 4, 1909; was U. S. senator when Congress had before it question of constructing the Panama Canal; so that work might not stop at any time for want of funds, offered amendment to Spooner bill providing for issue and sale of bonds when money needed for construction work; res. Indianapolis, Ind.
- FAUCETT, N. S., apptd. dep. treas., Wash. Off., Isthmian Canal Comn., 1904.
- FAURE, Ad., cost keeping accountant, in office of chmn. and chief engr., The Panama Canal; add. Culebra, Canal Zone, since 1910.
- FEUILLE, FRANK, spec. atty., The Panama Canal; born Havana, Cuba, Sept. 10, 1860; apptd. law clk., dept. justice in Porto Rico; later asst. atty. gen.; apptd. spec. judge, 1904; apptd. atty. gen. of Porto Rico, 1905; apptd. by exec. order, April 16, 1910, counsel and ch. atty. for Isthmian Canal Comn. and Panama R. R.; add. Ancon, Canal Zone.
- FIELDS, J. B., gen. foreman in charge erection of buildings, The Panama Canal, since Dec. 5, 1913; add. Culebra, Canal Zone.
- FILOS, FRANCISCO, secy. of state and justice, Republic of Panama; ed. at Cartagena; served as atty. gen.; was mem. law firm with Pres. Porras.
- FINLEY, GEORGE I., asst. engr., charge of design of structural work on permanent shop buildings, dept. of construction and engineering, The Panama Canal.
- FLINT, A. L., asst. chief of office, The Panama Canal; add. Washington, D. C.
- FLYNN, J. H., apptd. ch. draftsman, Canal Zone, 1909; grad. Mass. Inst. Tech.; went to Isthmus 1905; ch. draftsman mechanical div., 1906; mechanical engr., I. C. C., since 1909.
- FORBES, S. G., elect. supt. Atlantic div.; b. Ala.; grad. Ala. Polytech. Inst. degree B. S. 1900; went to Isthmus 1907 as foreman elect. dept.; apptd. station engr. Gatun in chg. power plant for locks and dams; apptd. elect. supt. Atlantic div.
- FREEMAN, F. C., supt. div. of clubhouses, dept. of engr. and construction since 1907; secy. International Comn. Young Men's Christian Association of North America, The Panama Canal; born Randolph, N. Y.; ed. Univ. of Mo., Univ. of Colo.; married Bernice G. Hackenberg 1909.
- FRENCH, H. F., apptd. prin. hydrographer, 3d div., ch. engr's. off., Culebra, Jan. 1, 1910.
- FYFFE, JAMES PERRY, police chief; born Marysville, Ky.; grad. Ky. State Univ. and Cincinnati Univ.; practiced law; apptd. ch. div. of police and prisons Canal Zone 1910.
- GAILLARD, DAVID DuBOSE, lt. col. Corps. of Engrs., U. S. A., mem. Isthmian Canal Comn. and dir. Panama R. R. Co., Mar. 16, 1907-Dec. 5, 1913; born Fulton P. O., S. C., Sept. 4, 1859; son of Samuel Isaac and Susan Richardson DuBose Gaillard; married at Winnsboro, S. C., Katherine Rose Davis, of Columbia, S. C., Oct. 6, 1887; ed. pvt. country sch., Clarendon Co., S. C., and Mt. Zion Sch., Winnsboro, S. C., 1872-4; apptd. from S. C. and grad. U. S. Mil. Acad., 1884; Eng. Sch. of Application, 1887; apptd. 2d lt. engr., June 15, 1884; 1st lt., Oct. 27, 1887; capt., Oct. 25, 1895; col. 3rd U. S. V. engr., June 7, 1898; hon. mustered out, May 17, 1899; maj. Apr. 23, 1904; lt. col. Apr. 11, 1909; asst. to Capt. W. M. Black, and in charge various surveys and harbor improvements at St. Augustine and Tampa and Withlacoochee River, Fla., 1887-91; mem. Internat. Boundary Comn., U. S. and Mex., 1891-4; in chg. Washington Aqueduct 1895-8; on staff Maj. Gen. J. F. Wade, U. S. V., Apr.-June, 1898; served in U. S. and Cuba, June 1898-May 1899; ch. engr. dept. of Santa Clara, Cuba, Feb.-Apr., 1899; asst. to engr. commr. of D. C., 1899-1901; in chg. of all river and harbor improvement of Lake Superior, 1901-3; mem. gen. staff corps and engr. officer Northern Div. 1903-4; on duty at Army War College, 1904-6; chief mil. information div., army of Cuban pacification at Marianao, Cuba, Oct. 1906-Feb. 1907; supervising engr. in charge of dredging in harbors, building breakwaters, etc., Apr. 1, 1907-July 1, 1908; div. engr. Central Div., Gatun to Pedro Miguel, from July 1, 1908; author of "Wave Action in Relation to Engineering Structures," 1904; died Baltimore, Md., Dec. 5, 1913.
- GARELLA, NAPOLEON, French engr.; in 1843 surveyed Panama Canal route, recommended a tunnel through Culebra.
- GARLINGTON, CRESWELL, 1st. Lt. Corps of Engrs., U. S. A., in charge fortification work, The Panama Canal; born June 23, 1887; grad. U. S. Mil. Acad.; apptd. 2d lt. engr., June 15, 1910; 1st lt. Feb. 27, 1913; add. Culebra, Canal Zone.
- GARRISON, LINDLEY MILLER, born Camden, N. J., Nov. 28, 1864; son of Joseph Fithian and Elizabeth (van Arsdale) Garrison; educ. pub. schools, Episcopal Acad., Phila., and Univ. of Pa.; married, Jan. 30, 1900, Margaret Holden, at Jersey City, N. J.; B. L. Univ. of Pa.; practiced law until Jan. 15, 1904, to become Vice Chancellor of N. J.; took oath of office as Secretary of War in Cabinet of Pres. Wilson, March 5, 1913; clubs—Lotus (N. Y.); Harvard (N. J.); Army and Navy, and Univ. (Wash. D. C.); res. 1830 Connecticut Av., Wash. D. C.
- GAUSE, FRANK A., supt. schools Canal Zone, Aug. 23, 1909-Aug. 23, 1913; born Westfield, Ind., Mar. 1, 1874; son of Amos W. and Margaret (Morrow) Gause; grad. Friends' Acad., Westfield, Ind., 1891; A. B. Ind. Univ. 1904; M. A. 1905; married Rose Carey, 1896; dist. sch. teacher 1892-4; asst. prin. Friends' Acad., 1894-5; supt. schools Cicero, Ind., 1897-1903;

- author, *Story of Panama; An Isthmian Idyl*; res. Westfield, Ind.
- GERIG, WILLIAM, div. engr., Gatun dam div., 1907; div. engr., Colon dredging div., 1907.
- GIBSON, COLLINS P., apptd. asst. supt. of Empire dist., Central div., Canal Zone, May 11, 1910.
- GILMORE, MAURICE E., born Somerset, Ky., Sept. 14, 1880; son of Cyrus B. and Elizabeth Gilmore; ed. Kendall Col. and Univ. of Mo. (B. S. and C. E.); served Span.-Am. War under Col. Roosevelt; apptd. levelman Isthmus Panama in 1908, worked for Panama R. R. in various positions from levelman to asst. engr.; asst. engr. in charge of surveys on 110 miles of railroad between Chame and Santiago for Panama Gov.; served two years as supt. pub. wks. for Isthmian Canal Comn. in Panama, Colon and Canal Zone; clubs—Univ. Strangers, and Tivoli, and the Chanticleer and Chagres Soc.; add. Ancon, Canal Zone.
- GOETHALS, GEORGE WASHINGTON, major gen. U. S. A., governor of The Panama Canal; apptd. chairman and ch. engr. Isthmian Canal Comn. Feb. 26, 1907; completed the Panama Canal; by executive order and in conformity with Panama Canal Act of Aug. 24, 1912, organization of Isthmian Canal Comn. was abolished and The Panama Canal contemplated by the act was made effective; Col. Goethals was then apptd. governor of the Panama Canal; born Brooklyn, June 29, 1858; student Col. of City of N. Y., 1873-6; grad. U. S. Mil. Acad. 1880; 2d lt. engrs. June 12, 1880; 1st lt. June 15, 1882; capt. Dec. 14, 1891; lt. col., ch. engr. vols. May 9, 1898; hon. discharged from vol. service Dec. 31, 1898; maj. Eng. Corps Feb. 7, 1900; grad. Army War Col. 1905; lt. col. Mar. 2, 1907; col. Dec. 3, 1909; maj. gen., Mar. 4, 1915; instructor in civil and mil. engineering, West Point, several years until 1888; in charge canal construction, Mussel shoals; ch. of engrs. during Spanish-American War; mem. board of fortifications (coast and harbor defense); LL.D., Yale, Harvard; mem. Delta Upsilon; add. Balboa Heights, Canal Zone, Panama.
- GOETHALS, GEORGE R., son of Geo. W. Goethals; capt. Corps of Engrs., U. S. A., in charge construction of gun and mortar batteries for defense of the canal since Jan. 1, 1912; born March 4, 1886; grad. U. S. Mil. Acad., 2d lt. engr. Feb. 14, 1908; 1st lt. Feb. 27, 1911, capt. 1915.
- GOLDMARK, HENRY, designer of steel lock gates used at Panama Canal; born N. Y. City, June 15, 1857; grad. Polytechnic Inst. (Brooklyn); Harvard Univ. and Royal Polytechnic Univ. of Hanover; before entering upon a contract with the Canal Comn. had been connected with many notable engineering projects of U. S. and Canada; des. engr., in chg. structural designing, Washington Off., Isthmian Canal Comn., 1907-1908, then transferred to Isthmus as designing engr. locks, gates and protective devices, at Culebra.
- GONZALEZ, GIL, Spanish explorer; born at Ávila about 1470. Was one of the most intrepid of the Spanish explorers who followed the footsteps of Columbus. In 1511 he was made Contador of Hispaniola. In June, 1519, the Gov. of Castilla del Oro was directed by the Spanish govern-
- ment to turn over to Gonzalez the vessels that had been built for Vasco Nuñez, and with these he was to explore the South Sea. In this expedition he was very successful. He coasted along the South Sea, and dividing his command he made an expedition into the interior, where in 1522 he discovered Lake Nicaragua. He was in a continual quarrel with Pedrarias, but on his return to Panama in 1523 he boasted he had coasted 650 leagues, traveled by land 324 leagues, and converted 32,000 souls. He brought back with him 112,000 pesos of gold. Died at Ávila about 1528.
- GOOLSBY, E. M., clerk of the courts, The Panama Canal, since Apr. 1, 1914; add. Ancon, Canal Zone.
- GORGAS, WILLIAM CRAWFORD, maj. gen. surg. gen. U. S. A.; chief sanitary officer, Panama Canal Mar. 1, 1904, and mem. Isthmian Canal Comn., 1907-Mar. 31, 1914; born Mobile, Ala., Oct. 3, 1854; son of Gen. Josiah (C. S. A.) and Amelia Gayle Gorgas; married Marie Cook Doughty of Cincinnati, Sept. 15, 1885; A. N., Univ. of the South, 1875; M. D., Bellevue Hos. Med. Col. (New York Univ.), 1879; Interne Bellevue Hosp., 1878-80; (hon. Sc. D., Univ. of Pa., 1903, Univ. of the South, 1904, Harvard, 1908, Brown, 1909, Jefferson Med. Col., 1909; LL.D., Univ. of Ala., 1910, Tulane, 1911); apptd. surg. U. S. A., June 16, 1880; capt. asst. surgeon June 16, 1885; maj. brigade surgeon vols., June 4-July 6, 1898; maj. surgeon, July 6, 1898; chief sanitary officer of Havana and in charge of sanitary work there, 1898-1902, applied methods of combatting yellow fever which eliminated that disease in Havana; col., asst. surgeon-gen., by spl. act of Congress, for yellow fever work at Havana, Mar. 9, 1903; mem. Isthmian Canal Comn. Mar. 4, 1907; recipient of Mary Kingsley medal from Liverpool Sch. of Tropical Medicine, May 27, 1907; hon. fellow N. Y. Acad. Medicine, 1908; assoc. fellow Col. of Physicians of Phila.; asso. mem. Société de Pathologie Otolique, Paris, 1908; pres. A. M. A., 1908-9, Am. Soc. Tropical Medicine, 1910; mem. Am. Pub. Health Assn., Assn. Mil. Surgeons (v. p.); U. S. del. 1st Pan-American Med. Congress, Santiago, Chili, 1908; apptd. surg. gen. with rank of brig. gen., Jan. 16, 1914; maj. gen., Mar. 4, 1915; add. War Dept., Wash., D. C.
- GREENSLADE, GEORGE A., gen. supt., 4th div., ch. engrs. off., The Panama Canal, since May 1, 1910.
- GROVE, WILLIAM R., maj. qmr. corps, U. S. A., inspr. Supply Dept., The Panama Canal since Apr. 1, 1914; comd. capt. U. S. A., Feb. 2, 1901; maj. Dec. 10, 1911; add. Cristobal, Canal Zone.
- GRUNSKY, CARL EWALD, civil engr., mem. Isthmian Canal Comn., 1904-5; born San Joaquin Co., Cal., Apr. 4, 1855; son of Carl Albert Leopold and Clotilde Josephine Frederica (Camerer) Grunsky; grad. Stockton (Cal.) High Sch., 1870, Realschule, Stuttgart, Germany, 1872-4; Polytechnikum, Stuttgart, 1874-7, grad. at head of class; married Mattie Kate Powers, of Sacramento, Cal., Mar. 12, 1884; asst. and ch. asst. engr. of Cal., 1879-80; mem. San Fran. Sewerage Comn., 1892-3; city engr., San Fran.

- 1900-4; consulting engr. U. S. Reclamation Ser., 1905-7; consulting engr. at New York since 1907; mem. Am. Soc. C. E., Tech. Soc. of the Pacific Coast, Cal. Acad. of Sciences; add. 45 Broadway, New York.
- GRUVER, Dr. F., apptd. quarantine officer, Panama, 1907.
- GUARDIA, AURELIO, secy. Finance, Panama; born San Carlos, prov. Panama; ed. pub. schools; apptd. Minister of Hacienda of prov. Coclé, 1888; rep. prov. Coclé in Nat. Cong. of Colombia, 1892-4; also prefect and fiscal in Coclé, and circuit judge in Colon; married in 1880; since 1904, superior judge.
- GUDGER, HEZEKIAH ALEXANDER, chief justice Supreme Court Canal Zone since Jan. 4, 1909; born Marshall, N. C., May 27, 1850; son of Joseph J. and Sarah E. (Barnard) Gudger; ed. Leicester Acad. and Weaverville Col., N. C., to 1870 (A. M.); grad. Bailey's Law Sch., Asheville, N. C., Aug. 10, 1875; practiced law Asheville; elec. to N. C. legis. 1872, 1874; prin. N. C. Instn. for Edn. of the Deaf, Dumb and Blind, 1877-83; resigned to reënter practice law, Jan. 1883; elec. to N. C. Senate 1885; Am. Con. Gen. to Panama, 1897-1905; justice Supreme Court Canal Zone, Feb. 24, 1905; Grand Master Masons of N. C., two terms; add. Ancon, Canal Zone, Panama.
- GUTHRIE, M. C., physician, chief quarantine off., The Panama Canal; add. Ancon, Canal Zone.
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- HAGAN, JAMES MONROE, supt. constr., Empire dist., Canal Zone, since May 11, 1910; native of Greenville, Ill.; ed. pub. school; apptd. gen. foreman, Dec. 1907; asst. supt., 1908; add. Empire, Canal Zone.
- HAINES, A. L., physician, b. N. Y.; grad. State Normal Col. 1880, degree M. D.; practiced med.; went to Isthmus 1905 as dist. phys. Culebra dist.; apptd. dist. phys. Empire dist. 1907.
- HAINS, PETER C., brig. gen., mem. Isthmian Canal Comn., Apr. 1, 1905-March 15, 1907; born Phila., July 6, 1840; son of Reuben P. and Amanda M. Hains; grad. U. S. Mil. Acad. 1861; married Virginia P. Jenkins, Nov. 1864; 2d and 1st lt. arty. 1861; to engr. corps. 1863; capt. 1863; maj. 1870; lt. col. 1886; col. 1895; brig. gen. vols. 1898; brig. gen. 1903; mem. Nicaragua Canal Comn. 1897-9; mem. Isthmian Canal Comn., 1899-1903; retired from active service July 6, 1904; add. Washington, D. C.
- HAMMER, J., mem. staff, Washington office, Isthmian Canal until Oct. 1908, then transferred to Isthmus as designing engr., lock gates and protective devices, Culebra.
- HAMMOND, JOHN HAYS, engr.; born San Francisco, Mar. 31, 1855; son of Richard Pindle and Sarah Elizabeth Hays Hammond; married Natalie Harris, of Miss., Jan. 1, 1880; ed. pub. and pvt. schools; Ph. B., Sheffield Scientific Sch. (Yale), 1876, A. M., Yale, 1898; mining course at Royal Sch. of Mines, Freiburg, Saxony; (D. E., Stevens Inst. Tech. 1906); LL.D., St. Johns Col., 1907; spec. expert U. S. Geol. Survey, 1880, examining Cal. gold fields; later in Mexico and afterward consulting engr. Union Iron Works, San Francisco, and to Central and Southern Pacific Rwy.; has examined properties in all parts of the world; became consulting engr. for Barnato Bros., 1893, and later for Cecil Rhodes; pres. Am. Inst. Mining Engrs., 1907-8; clubs—Century, University (New York) and University Clubs of San Francisco, Denver, and Salt Lake City; add. 71 Broadway, New York.
- HANNA, MARCUS A., champion of Panama in Panama vs. Nicaragua route; U. S. senator; born Lisbon, Ohio, Sept. 24, 1837; son of Leonard and Samantha Hanna; ed. pub. schools of Cleveland; assumed control of firm of Hanna, Garretson & Co., upon death of his father; firm dissolved in 1867 and he associated himself with Rhodes & Co., successors to Rhodes, Card & Co., pioneer coal and iron firm of Cleveland; in 1872 organized and equipped the Cleveland Trans. Co., one of the largest lines operating on the Great Lakes; pres. Union Nat. Bank of Cleveland, 1884; del. at large from Ohio to Rep. Nat. convs., 1884 and 1896; chmn. Nat. Committe, campaign Pres. McKinley; apptd. U. S. senator March 2, 1897, and reëlected 1898; died Washington, D. C., Jan. 15, 1904.
- HARDING, CHESTER, col. Corps of Engrs., U. S. A., charge Atlantic Div. construction work Panama Canal; born Enterprise, Miss., Dec. 31, 1866; grad. Ala. Univ., degree B. E.; grad. U. S. Mil. Acad.; add. 2d lt. engr. June 12, 1889; 2d lt. Aug. 12, 1890; 1st lt. Jan. 26, 1895; capt. July 5, 1898; maj. June 27, 1906; lt. col. Feb. 27, 1913; col. 1915; add. Balboa, Canal Zone.
- HARMON, DANIEL W., capt. med. corps, U. S. A.; health officer of Colon, The Panama Canal; born Aug. 1, 1880; 1st lt. med. res. corps July 7, 1908; grad. Army Med. School 1909; 1st lt. med. corps May 27, 1909; capt. June 25, 1912; M. D. Univ. of Va., 1903; add. Cristobal, Canal Zone.
- HARPER, A. C., res. engr., surveys and borings, La Boca locks div., apptd. 1907.
- HARRIS, WILLIAM B., pres. William B. Harris Co., New York, N. Y., shippers of supplies to Canal Zone; born Brooklyn, N. Y., Oct. 19, 1871; son of Samuel L. and Alice (Wilde) Harris; ed. grammar sch., Gt. Barrington, Mass.; grad. high sch. East Orange, N. J.; grad. Newark Acad.; married Callie W. Underhill, Dec. 2, 1896; add. 65 Front St., New York.
- HARROD, BENJAMIN MORGAN, civil engr., mem. Isthmian Canal Comn., 1904-7; born, New Orleans, Feb. 19, 1837; son of Charles and Mary (Morgan) Harrod; A. B., Harvard, 1856, A. M., 1859 (LL.D., Tulane, 1906); married Eugenia Uhlhorn, of New Orleans, Sept. 11, 1883; pvt., lt. of arty., brigade and div. engr. and capt. engr. corps, C. S. A., in Civil War; chief state engr. of La., 1877-80; mem. U. S. Miss. River Comn., 1879-1904; city engr. of New Orleans, 1888-92; chief engr. in charge of constructing drainage system, New Orleans, 1895-1902; died Sept. 7, 1912.
- HARTIGAN, FRED L., resigned as supt. of constr., June 13, 1908.
- HAUPT, LEWIS MUHLENBERG, canal com-

- missioner; born Gettysburg, Pa., Mar. 21, 1844; ed. Lawrence Sc. School; grad. U. S. Mil. Acad., 1867; married Isabella Cromwell, June 26, 1873; second lt. engrs. U. S. A., 1867; resigned Sept. 20, 1869; prof. civ. engineering, univ. of Pa., 1872-92; mem. Nicaragua Canal Comn., 1897-99; mem. Isthmian Canal Comn., 1899-1902.
- HAWKINS, Sir JOHN**, English admiral; born at Plymouth, 1532; during 1562-7 engaged in carrying cargoes of slaves from Africa to the West Indies and the Spanish Main. This was in violation of Spanish laws, and it brought him into a conflict, Sept. 24, 1568, with a Spanish fleet in harbor of Vera Cruz. Hawkins was worsted in the fight, and escaped with difficulty, losing most of his vessels. In 1573 apptd. treasurer of the English navy. As rear adm. he took a prominent part in the defeat and overthrow of the Spanish Armada, in August 1588. Died at sea off Porto Rico, Nov. 12, 1595, while second in command of Drake's expedition.
- HAY, JOHN**, secretary of state, signer of Hay-Pauncefote and Hay-Bunau-Varilla treaties; born Salem, Ind., Oct. 8, 1838; son of Charles and Helen Leonard Hay; married Clara L. Stone, 1874; grad. Brown Univ., 1858; asst. secy. to Pres. Lincoln and later acted as his adjutant and aide-camp; soon after death of Pres. Lincoln apptd. secy. of legation Paris; 1867-8 secy. legation and chargé d'affaires Vienna; 1869 secy. legation Spain; 1st asst. secy. State 1879-81; ambassador to Great Britain, 1897; his services at the Court of St. James were of the greatest importance in promoting the spirit of amity between the two countries, and attitude of friendly neutrality which Great Britain assumed at outbreak of Spanish-Am. War may be ascribed largely to his diplomacy; apptd. secretary of state Sept. 30, 1898, and served until his death in 1905.
- HEBARD, R. W.**, res. engr., Chagres div., Aug. 2, 1907-Oct. 2, 1909.
- HECKER, FRANK JOSEPH**, mem. Isthmian Canal Comn., Mar.-Dec., 1904; born at Freedom, Mich., July 6, 1846; son of Frank and Cynthia (Shield) Hecker; ed. in pub. schools; pvt., and 1st sergt. Mo. Inf., 1864-5; married Anna M. Williamson, of Omaha, Dec. 8, 1868; organized Peninsular Car Co., 1879; dir. Peoples' State Bank, Union Trust Co., Detroit Copper and Brass Rolling Mills, Detroit Lumber Co.; police commr., Detroit, 1880-90; col. q. m. vols. 1898-9; chief of div. of transportation of the army during Spanish-Am. War; clubs—Detroit, Yondotega, Country, Old, Detroit Boat; add. Union Trust Bldg., Detroit.
- HELLER, CHARLES W.**, pres. Heller & Brightly, Phila.; furnished instruments in eng. work on Panama Canal; born Phila., May 11, 1883; son of Charles S. and Ada M. Heller; ed. North East Manual Training High School, Phila.; married Bertha A. Hurgust, Nov. 23, 1909.
- HELMER, J. H.**, claim officer, accounting dept., The Panama Canal; add. Empire, Canal Zone.
- HEPBURN, WILLIAM PETERS**, ex-congressman and author of House bill providing for construction of Nicaragua Canal; born Wellsville, Ohio, Nov. 4, 1833; ed. pub. schools Iowa; (LL.D., Cornell Col., Ia., 1904); admitted to bar, 1854; dist. atty. 11th Jud. dist., 1853-61; capt., maj., and lt. col. 2d Ia. cav. 1861-65; pres. elector 1876; at large, 1888; mem. 47th-49th Congresses; Solic. Treas. 1888-93; mem. 53d-60th Congresses; chmn. Com. Interstate and Foreign Commerce, 59th-60th Congresses; add. Clarinda, Ia.
- HERRICK, ALFRED B.**, surgeon; born Amsterdam, N. Y., ed. Williams Col. and Johns Hopkins Univ.; served 4 years in hospital work Wash. D. C. Went to Isthmus July 1904, engaging in sanitary work; apptd. chief surgical clinic Ancon hospital.
- HINMAN, H. D.**, asst. engr., construction Pacific terminals, The Panama Canal, since Aug. 1, 1912.
- HISE, ELIJAH**, American diplomat; chargé d'affaires to Central America, 1848, instructed "to obtain information as to nature and extent of late British encroachments in Central America"; without authority negotiated and signed treaty with Nicaragua whereby United States undertook to defend and protect sovereignty of Nicaragua and latter country granted to U. S. exclusive canal rights; treaty never submitted to Senate.
- HITT, SAMUEL M.**, architect permanent building div., supply dept., since Dec. 5, 1913; add. Balboa, Canal Zone.
- HODGES, HARRY FOOTE**, brig. gen. corps. engrs. U. S. A., engr. of maintenance, The Panama Canal; connected with the canal organization from Sept. 15, 1908, as mem. and asst. chief engr.; born Boston, Feb. 25, 1860, son of Edward Fuller and Anne Frances (Hammatt) Hodges; married Alma L'Hommedieu Reynolds, Chicago, Dec. 8, 1887; student Boston Latin Sch. and Adams Acad.; grad. U. S. Mil. Acad., 1881; 2d lt. corps. engrs., July 17, 1881; 1st lt., Feb. 20, 1883; capt., May 18, 1893; maj., May 2, 1901; lt. col., Aug. 27, 1907; col., July 11, 1911; brig. gen., Mar. 4, 1915; lt. col. 1st U. S. vol. engrs., June 10, 1898; col., Jan. 21, 1899; hon. mustered out, Jan. 25, 1899; with bat. engrs. river and harbor work, 1881-8; instr. and asst. prof. engrng. West Point, 1888-92; river, harbor and fortification work, 1892-8; in field in Porto Rico, 1898-9; river and harbor work, 1899-1901; ch. engr. dept. of Cuba, 1901-2; in office Chief Engrs. U. S. A., 1902-7; gen. pur. officer Isthmian Canal Comn., 1907-8; dir. add. 2d v. p. Panama R. R. Co.; comdg. North Atlantic coast artillery dist.; mem. Army and Navy and Chevy Chase clubs, Wash. D. C.; add. Ft. Totten, N. Y.
- HOFFMAN, GEORGE M.**, lt. col. corps of engrs. U. S. A.; res. engr. in charge of construction spillways Panama Canal, 1908-Sept. 26, 1913; born June 15, 1870; cadet U. S. Mil. Acad., June 17, 1892; apptd. add. 2d lt., June 12, 1896; 2d lt., May 18, 1898; 1st lt., July 5, 1898; capt. Apr. 23, 1904; maj., Dec. 3, 1909; lt. col., Mar. 4, 1915; add. Federal Bldg., Rock Island, Ill.
- HOHLFELD, HERMAN L.**, pres. Hohlfeld Mfg. Co., Phila., furnished supplies to Canal Zone; born Saxony, Germany, Jan. 12, 1866; son of Henry and Caroline Hohlfeld; attended pub. sch. Adams, Mass.; married Phoebe Hobson, Phila., Jan. 1893; mem. Manufacturers Club, Trades League,

- Merchants and Manufacturers Assn., Am. Civ. Alliance (Phila.).
- HOLMES, FRANK, res. engr., supply dept., The Panama Canal, since Aug. 1, 1913; add. Culebra, Canal Zone.
- HUFF, FRED LEON, asst. supt. of constrn., Central Div., Aug. 18, 1908-Aug. 6, 1912; born 1879, Whiteside, Mo.; went to Isthmus 1905, as gen. foreman.
- HUGHES, CHARLES R., engr; grad. Cornell Univ.; went to Isthmus 1905; engaged surveys for Gatun Lake; foreman spillway excavation, 1908; supervisor spillway construction, 1910; supt. of construction of Gatun dam and spillway.
- HUMPHREYS, ANDREW ATKINSON, brig. gen. U. S. A.; was mem. Inter-oceanic Canal Comn.; born Phila., Pa., Nov. 2, 1810; grad. U. S. Mil. Acad., 1831; resigned from service 1836 to engage in civil engineering; employed by gov. construction light-houses; 1838 apptd. lt. corps of Topographical Engrs.; 1848, capt.; for 12 years had charge of surveys for improvement of Mississippi River; 1854 surveyed railroad route from Mississippi River to Pacific coast; 1862 apptd. brig. gen. U. S. V.; 1863 apptd. chief of staff by Gen. Meade; 1864 assigned to command 2d Corps. Army of the Potomac; 1866 apptd. brig. gen., Corps of Engrs.; retired in 1879; with Admiral Ammen apptd. Commr. to make surveys for a ship canal through the Isthmus of Panama, and also through Nicaragua; died Washington, D. C., Dec. 27, 1883.
- J
- JACKSON, WILLIAM H., district judge, The Panama Canal, since April 1, 1914; add. Ancon, Canal Zone.
- JACKSON, WILLIAM KENNETH, Jr., dist. atty., The Panama Canal since Apr. 1, 1914; pros. atty. Canal Zone since Apr. 1910; born Box Station (now Denver) Tenn., Nov. 13, 1886; son of William K. and Medora E. (Montgomery) Jackson; ed. Univ. of Fla. and Univ. of Va.; A. B. Univ. of Fla., 1904; L.L.B. Univ. of Va., 1908; practiced law in Jacksonville, Fla., as member of firm of Jackson & Nixon, 1908-9; apptd. asst. pros. atty. Canal Zone, and asst. atty. Isthmian Canal Comn., and Panama Railroad, Mar. 1909; add. Ancon, Canal Zone.
- JACKSON, WILLIAM P., ex-U. S. senator; born Salisbury, Md., Jan. 11, 1868; son of William H. and Arabella (Humphreys) Jackson; ed. Wilmington Conf. Acad., Dover, Del.; married Sallie McCoombs, of Md., 1890 (died 1899), 2d Katherine Shelmerdine, of Phila., 1900; entered lumber mfg. business 1887 and assisted in organizing Jackson Bros. Co.; apptd. U. S. senator, Nov. 29, 1912, to fill vacancy caused by death of Isidor Rayner; add. Salisbury, Md.
- JACOBSON, BENJ. L., dept. commissary supply dept., The Panama Canal; add. Cristobal, Canal Zone.
- JADWIN, EDGAR, lt. col. Corps of Engrs., U. S. A.; served as res. eng. Atlantic Div., Panama Canal; born Nov. 14, 1869; grad. U. S. Mil. Acad.; add. 2d lt., June 11, 1892; 2d lt., May 10, 1895; 1st lt., July 31, 1897; capt., May 2, 1901; maj., Feb. 28, 1908; lt. col., 1915; served through Spanish-Am. War as maj. and lt. col. 3d reg. U. S. V. Engrs.; July 18, 1907, detailed to Canal Zone as div. eng., Chagres Div.; 1908 apptd. res. eng. Atlantic Div.; in charge breakwater construction at Colon, the excavation of sea level canal from Atlantic to Gatun, and of the dry dock and machine shops at Cristobal; add. Off. Chief Engrs., Wash., D. C.
- JERVEY, JAMES POSTELL, lt. col., Corps of Engrs., U. S. A., res. engr. and supt. construction locks at Panama Canal, until Sept. 26, 1913; born Nov. 14, 1869; grad. U. S. Mil. Acad.; add. 2d lt., June 11, 1892; 2d lt., May 10, 1895; 1st lt., July 31, 1897; capt., May 2, 1901; maj., Feb. 28, 1908; lt. col., 1915; detailed to duty on Isthmus July 1908; add. Custom House, Norfolk, Va.
- JEWEL, LINDSEY LOUIN, engr.; born Montgomery Co., Va., 1877; grad. Va. Polytech. Inst.; went to Isthmus 1910 in charge construction of lock gates for McClintic-Marshall Construction Co., of Pittsburgh.
- JOHNSON, BEN., engr.; born Greenville, Miss.; grad. West Point, 1889; resigned; went to Isthmus, 1907 as asst. supt. Gorgona; supt. of locks, 1909.
- JOHNSON, LUCIUS E., pres. Norfolk and Western Ry. Co.; born Aurora, Ill., Apr. 13, 1846; son of J. Spencer and Eliza (Brown) Johnson; ed. public sch., Aurora; married Ella Parker, Apr. 10, 1869; first connection with railroad work was in capacity of locomotive fireman on C. B. R. R., in 1866; after filling various positions promoted in 1886 to div. supt.; in 1890 apptd. supt. Mont. Cent. Ry.; resigned 1889 and apptd. div. supt. L. S. & M. S. Ry.; 1897 apptd. gen. supt. N. & W. Ry.; filled positions of v. p. and gen. mgr., gen. mgr., pres. and gen. mgr.; elec. pres. Feb. 1, 1904; clubs—Shenandoah and Country Clubs (Roanoke, Va.), Virginia Club (Norfolk), Queen City (Cincinnati), Racquet Club (Phila.), Tedesco Country (Swampscott, Mass.); add. Roanoke, Va.
- JOHNSON, M. O., apptd. supervising architect, Canal Zone, 1904.
- JOHNSON, EMORY RICHARD, Canal commissioner; born Wisconsin, Mar. 22, 1864; B. L. univ. of Wisconsin, 1888, M. L. 1891; Ph. D. univ. of Pa., 1893; married Ora L. March of Oshkosh, Wis., Sept. 5, 1894; prof. transportation and commerce, U. of Pa., 1896; expert on transportation, U. S. Industrial Comn., 1899; member U. S. Canal Commission, 1899-1904; expert on transportation, Panama Canal, 1913.
- JOHNSTON, WILLIAM C., commr. to rep. Panama in settlement of Canal Zone boundary; ex-asst. chief engr., Repub. Panama; born London, Eng., Nov. 10, 1870; ed. Eng., Belgium and Germ.; went to Panama, 1893; apptd. official engr. for gov. of Panama, 1908; prov. of Cocolé, 1909; act. div. engr., 1911.
- JUDSON, WILLIAM V., lt. col. Corps of Engrs., U. S. A., asst. div. eng., Canal Zone until Apr. 1, 1914; born Indianapolis, Ind., Feb. 16, 1865; son of Charles E. and Abby (Voorhees) Judson;

ed. Harvard, 1882-4; grad. U. S. Mil. Acad., 1888; U. S. Engr. School Application 1891; married Alice Carneal Clay, of Lexington, Ky., Apr. 21, 1891; add. 2d Lt. Eng. Corps., June 11, 1888; 2d Lt. July 23, 1888; 1st Lt. May 18, 1893; capt. July 5, 1898; maj. Mar. 2, 1906; Lt. col., Mar. 2, 1912; recorder, bd. engrsr., U. S. A.; instr. mil. engrng. U. S. Engr. School; asst. to ch. engrsr.; mil. attaché with Russian Army, Russo-Japanese War; engr. commr. District of Columbia; add. Chicago, Ill.

K

KAGY, LEVI M., mem. Joint Land Comn., The Panama Canal; add. Ancon, Canal Zone.

KITTREDGE, ALFRED BEARD, U. S. senator from South Dak., July 11, 1901, to Mar. 3, 1909; born Nelson, N. H., Mar. 28, 1861; grad. Yale, 1885; adm. to practice law at Sioux Falls, S. D.; hm. Senate Com. on Interceanic canals, and trng advocate of Panama route; died Hot Springs, Ark., May 4, 1911.

KNAPP, HARRY SHEPARD, capt. U. S. N.; born Conn., June 27, 1856; apptd. naval acad. from Conn., 1874; mem. gen. and joint boards; writer on naval questions; add. Navy Dept., Wash., D. C.

KNOX, PHILANDER CHASE, ex-secy. of state; born Brownsville, Pa., May 6, 1853, son of David S. and Rebekah (Page) Knox; ed. Mt. Union Col., O., Pittsburgh, adm. to bar, 1875; married Lillie, daughter of Andrew D. Smith, Pittsburgh, 1880; atty. gen. in McKinley and Roosevelt cabinets, 1901-4, and visited Paris in negotiations for acquisition of New French Canal Co. titles; apptd. U. S. senator, June 10, 1904, to fill unexpired term of M. S. Quay; elected U. S. senate for term 1905-11; resigned and became secy. of state in Taft cabinet, 1909-13; carried on negotiations with Colombia and tolls question with Great Britain; add. Pittsburgh and Washington.

KYLE, OSCEOLA, judge, Canal Zone, 1904-March 23, 1905.

L

LA GARDE, LOUIS A. col., med. corps., U. S. A., ret.; supt. Ancon hosp., 1904; born April 15, 1849; apptd. asst. surg. June 6, 1879; capt. asst. surg. June 6, 1883; maj. surg. Nov. 13, 1896; Lt. col. dept. surg. gen. March 17, 1906; col. Jan. 1, 1910; retired from active service Apr. 15, 1913; add. 2642 Woodley Pl., Washington, D. C.

LANSDOWNE, Fifth Marquis of, (Henry Charles Keith Petty-Fitzmaurice), British secretary of State for foreign affairs 1900, directed negotiations of Hay-Pauncefote treaty.

LANG, A. R., supt. div. of schools, The Panama Canal; add. Ancon, Canal Zone.

LEFEVRE, ERNESTO TISDEL, Minister for Foreign Affairs, Panama; born in Panama, 1876; ed. in U. S.; organized Tel. Co. of Panama, Elec. Light and Ice Supply Co. and Int. Ins. Co. of Panama, Panama Match Co., and other concerns; 1903 apptd. ch. dept. Posts and Telegraphs; Clubs—University, Commercial, International; married Oderay Arango.

LEFEVRE, JOSÉ EDGAR; priv. secy. to Pres.

Amador of Panama; now secy. Panama Leg. at Washington; born Panama, Feb. 24, 1881; ed. Panama and U. S.; mgr. Panama Tel. Co.; apptd. clk. Panama R. R. Co.; later asst. gen. paym.; elec. assemblyman prov. Los Santos, 1906; Chev. Legion of Honor of France; mem. Span. Am. Acad. of Arts and Sciences; hon. mem. Geog. Soc. Washington; Clubs—International, Tivoli, Union, University (Panama), Nat. Press. Club, (Washington, D. C.); add. Stoneleigh Court, Washington, D. C.

LePRINCE, JOSEPH A., civ. engr., chief sanitary inspr., Canal Zone until March 25, 1914; born Leeds, Eng., 1875; attended Sachs Col. Inst. New York; grad. Col. U. 1898, C. E.; (M. A. 1899); practiced profession and appointed on Isthmus June 1904; acting health officer City of Panama during yellow fever campaign; married Julia Mercedes Lluria, Havana, 1902.

LEWIS, SAMUEL, mem. Joint Land Comn., The Panama Canal; ed. pub. sch. New York; completed ed. under direction of the Christian Brothers at Passy, France; mem. Municipal Council when Panama was a Dept. of Colombia, apptd. v. p. of that body in 1903; mem. 2d Mixed Com. created by the Hay-Buneean-Varilla treaty; later apptd. secy. of Foreign Affairs during administration of Pres. Obaldia, retaining his post under interim govt. of Pres. Mendoza; temp. in charge Dept. State and of Dept. of Finances and Treasury during administration of Pres. Mendoza; mem. Bd. of Dirs. of National Bank of Panama since 1908; leader of Conservative Progressive party; mem. Fourth Mixed Claim Com., and pres. Municipal Council, City of Panama.

LITTLE, JOSEPH, supt. of constrn. Culebra div., until Feb. 3, 1913.

LLOYD, J. A., American engineer; in 1827 surveyed Panama Canal route.

L'OLONNOIS, FRANÇOIS, French buccaneer; this notable pirate was transported while a youth to the West Indies, where he joined in several filibustering expeditions, as a common mariner. He so distinguished himself by his brute strength and ferocity that the Governor of Tortuga supplied him with a ship to sail on his own account. His success was very great. So enraged was he against Spain that he made an oath never to give quarter to a Spaniard, and he kept his oath, butchering more than a score of prisoners with his own hand on one occasion. In 1660 and 1665 he led expeditions against the west coast of Central America, with some success. He was finally defeated by the islanders near the Gulf of Darien. Killed by Indians 1668.

LOOMIS, FRANCIS BUTLER, diplomat; born Marietta, O., July 27, 1863; son of Judge William H. and Frances (Wheeler) Loomis; ed. Marietta Col.; on ed. staff N. Y. *Tribune*, 1893; married Elizabeth M. Mast, of Springfield, Ohio, Apr. 23, 1897; State Librn. of Ohio, 1886-7; newspaper corres. at Washington, 1887-90; Consul at St. Etienne, France, 1890-93; on return to U. S. apptd. ed. *Cincinnati Tribune*; Minister to Portugal 1897-1901; apptd. asst. secy. State 1901; as Secy. ad interim and as asst. secy. was in charge of questions arising out of the revolution

- at Panama. 1905 sent to France as spec. amb. to receive remains of John Paul Jones; grand off. Legion of Honor of France; add., Metropolitan Club, Washington, D. C.
- LOULAN, J. A., in charge of lock excavation and trestles, La Boca locks div., 1907; apptd. supt. Ancon quarry and crushers, 4th dist., Pacific div., 1910; born Jamaica, L. I., 1861.
- LYSTER, THEODORE C., lt. col. med. corps U. S. A.; born Kans. 1875; grad. Univ. Mich., 1899; ap. from Mich priv. and acting steward hosp. corps, 1898; asst. surg., 1900; capt., 1905; maj., 1909; lt. col., 1915; chief eye, ear and throat clinic, Ancon hospital; later served in Philippines; add. Washington, D. C.
- M
- MACARTHUR, ARTHUR FREDERIC, engineer, contractor; born Oramel, N. Y., 1860; grad. Harvard, 1882; mar. Mary Seymour Barnum, N. Y., 1889; supt. MacArthur Bros. Co., 1883, gen. mgr., 1892; v. p., 1903, pres. since 1908; int. in other companies; add. 11 Pine st., N. Y.
- McILVAINE, CLOYD A., exec. secy., The Panama Canal; born Creston, O., 1877; ed. Wooster Univ. and Normal Univ., Ada, O.; went to isthmus, Dec., 1904.
- McKINLEY, WILLIAM, twenty-fifth Pres. of U. S.; born Niles, O., June 29, 1843; enlisted as private soldier in Civil War, mustered out capt. and brev. maj.; member 45th, 46th, 47th, 49th, 50th, and 51st Cong.; gov. of O., 1892-96; elected Pres. of U. S., 1896; reelected, 1900; assassinated Buffalo, N. Y., Sept., 1901; directed negotiation of first Hay-Pauncefote treaty and otherwise furthered canal projects.
- McLEAN, JOHN H., paym., accounting dept., The Panama Canal; add. Empire, Canal Zone.
- MAC DONALD, DONALD FRANCIS, geologist, The Panama Canal; went to Isthmus, Jan. 1911; born Pictou Co., Nova Scotia; trav. in Alaska and Brit. Col. for Hudson Bay Fur Co.; grad. Univ. of Wash., 1905; M. S., Geo. Wash. Univ., 1906; field work, Geolog. Survey, 1902-11; add. Culebra, Canal Zone.
- MACFARLANE, JAMES, engineer; born Bankfoot, Perthshire, Scotland; went to Isthmus 1901 as superintendent in charge of bridges Panama railroad; member board local inspectors Canal Zone.
- MADURO, HENRY L., director of Maduro Co., Panama; born St. Thomas, D. W. I., Aug. 5, 1866; son of Solomon L. and Esther Piza de Maduro; ed. pub. schools, New York City; married Fanny Eder Maduro; entered firm of Maduro é Hijo at Panama in 1886; became a partner in 1892; mem. Union and Univ. Clubs, (Panama); add. Panama City, Panama.
- MADURO, JOSHUA L., dir. Maduro Co., Panama; born St. Thomas, D. W. I., son of Solomon and Esther Piza de Maduro; ed. Boltz Col., Hamburg; married Estelle Delvalle, Oct. 1908; mem. firm of Maduro é Hijo, Panama, since Jan. 1884; del. Chamber Com., of Panama, to Phila. Commercial Cong., 1899; resided in London 1894-96; and from 1896 to 1905 in N. Y. City, during which time he became citizen of U. S.; mem. Univ. Club (Panama).
- MAGOON, CHARLES E., gov. Canal Zone, May 25, 1905, to Oct. 12, 1906; born Steele Co., Minn., Dec. 5, 1861; son of Henry C. and Mehitable W. (Clement) Magoon; ed. high sch., Owatonna, Minn., Univ. of Neb.; (L.L.D., Monmouth, 1905); unmarried; admitted to bar, 1882; law officer Bu. Insular Affairs, War Dept., 1899-1904; gen. counsel, Isthmian Canal Comm., July 1, 1904-April 1, 1905; mem. Isthmian Canal Comm. 1905-6; Minister to Panama, July 17, 1905-Oct. 12, 1906; provisional gov. Cuba, Oct. 12, 1906-Jan. 28, 1909; Clubs—Metropolitan, Chevy Chase, Alibi, Cosmos (Washington); author, *The Law of Civil Government Under Military Occupation, 1902*; home, Lincoln, Neb.; add. Metropolitan Club, Washington.
- MANN, C. H., depot qmr., supply dept., The Panama Canal; add. Cristobal, Canal Zone.
- MANSVELT, English buccaneer; came into prominence on the Spanish Main in 1664, when he led a fleet of fifteen vessels, manned by 500 freebooters of various nativities in an attempt to capture Natá; established pirate settlement on Santa Catarina, leaving it in charge of 100 men; this was to be a rendezvous for pirates, and existed for many years. His attempt on Natá failed, and he undertook an expedition against Cartago, capital of Costa Rica. In this expedition Henry Morgan, afterward so notorious, was second in command. The expedition consisted of French and English, and national prejudices caused so much quarreling that Mansvelt and Morgan had to exercise all their skill and authority to prevent the factions falling on each other. The Governor of Cartago, having received information of the approach of the freebooters, fell on them suddenly with a superior force, driving them back and forcing them to hastily put to sea. Mansvelt sought shelter at Santa Catarina, and died there.
- MARKS, DAVID, mem. Joint Land Commn., The Panama Canal; died July 17, 1914.
- MASON, CHARLES FIELD, col. Medical Corps, U. S. A., chief health officer The Panama Canal since April 1, 1914; supt. Ancon Hospital, The Panama Canal, since May, 1909; born Richmond, Va., Feb. 27, 1864; ed. pvt. schools and Mil. Acad., Fredericksburg, Va.; son of Wiley Ray and Susan Thornton Mason; married Mary E. Hare, March 4, 1903; apptd. 1st lt., med. corps, May 6, 1886; capt. asst. surg., July 2, 1893; maj. surg., Dec. 9, 1901; lt. col. Jan 1, 1910; col., 1915; served in Spanish-Am. War as maj. and surg. N. J. Vol.; served in Porto Rico and Philippines; asst. surg. gen. 1904-9; author of *Handbook for the Hospital Corps, Medical Electricity, Prize Essay for 1910 on "The Medical Department of the Army;"* mem. Am. Med. Assn., Assn. Mil. Surgeons U. S.; Citizens' Service Inst., National Geographic Society, Canal Zone Med. Assn., and Texas State Med. Assn.; add., Ancon, Canal Zone.
- MAXIM, Sir HIRAM STEVENS, American-English engineer and inventor; born Sangerville, Me., Feb. 5, 1840; invented automatic system of fire-

- arms, explosives, etc.; member Vickers' Sons & Maxim; knighted 1901; add. London, Eng.
- MAY, WILLIAM HOWARD, marshal, The Panama Canal, since April 1, 1914; born Elkton, Md., 1873; secy. to U. S. Senator A. P. Gorman for sixteen years to 1906; went to Isthmus as secy. to Col. Goethals, 1907, serving until apptd. marshal.
- MEARS, FREDERICK, capt. U. S. A., formerly ch. eng., P. R. R. Co.; born Ft. Omaha, Neb., May 25, 1878; ed. pub. sch. N. Y. City and San Francisco; enlisted as private U. S. Army, 1899; apptd. 2d lt., 1901; 1st lt., 1906; capt., 1915; grad. Infantry and Cavalry Sch. at Ft. Leavenworth, 1904, and the U. S. Staff Col., 1905; married April 6, 1907, Jane P. Wainwright; apptd. to Isthmian Canal Comn., May 1906; asst. engr., May 1907; res. eng. for the P. R. R. Co., 1907; chief engr., P. R. R. Co., 1907-9; add. Dept. Interior, Washington, D. C.
- MENDOZA, CARLOS A., ex-pres. Panama; born Panama City, Oct. 31, 1856; ed. schools of Panama and Bogotá; secy. of govt. of Gen. Aispuru, 1885; 1897 del. to Liberal Conv. at Bogotá; 1903 apptd. Minister of Justice; 1908 apptd. secy. of property by Pres. Obaldia; assumed presidency of Panama on death of Pres. Obaldia, March 1910.
- METCALFE, RICHARD L., mem. Isthmian Canal Comn., Aug. 9, 1913-Mar. 31, 1914; civ. gov., Panama Canal Zone, 1913-14; born Oct. 11, 1861; son of Dr. Richard L. and Ellen T. (Edwards) Metcalfe; ed. pub. schs.; married Bessie Buehler, of Seymour, Ind., Apr. 30, 1885; reporter Omaha *World-Herald*, 1888; asst. to William J. Bryan, editor, 1894; editor *World-Herald*, 1896-05; asst. editor *The Commoner*, 1905-13; apptd. Apr. 1, 1914 mem. committee for formal opening Panama Canal, created by Exec. Order, May 20, 1914; add. Ancon, Canal Zone.
- MILLARD, JOSEPH HOPKINS, ex-U. S. Senator; born Hamilton, Can., Apr. 1836; ed. common schools; mar. Carolina Grover Barrows, Davenport, Ia., 1860 (died 1901); res. Omaha since 1856; founded Omaha Nat. Bank, pres. since 1867; ex-mayor Omaha; director U. P. R. R. thirteen years; U. S. Senator 1901-07; chm. Com. on Interoceanic Canals; add. Omaha, Neb.
- MONNICHE, T. B., engr. of docks, dept. Operation and Maintenance, The Panama Canal, since Apr. 1, 1914; apptd. eng. in chg. design and construction of aids to navigation, Culebra, Sept. 15, 1908; add. Cristobal, Canal Zone.
- MOORE, F. H., asst. engr., charged with the designing of movable dams, Culebra, apptd. Sept. 15, 1908.
- MOORE, J. HAMPTON, Member of Congress from Pa., President of Atlantic Deeper Waterways Association since 1907; born Woodbury, N. J., Mar. 8, 1864; married Adelaide Stone in 1899; ed. in common schools; law student in Phila., 1877-80; reporter in the courts on *Public Ledger*, 1881-95; chief clk. to city treas., Phila., 1894-7; editor and pub., 1898-1900; secy. to mayor, 1900; city treas., 1901-3; ch. bu. mfrs., Dept. Com. and Labor, Jan. 1905; resigned to become pres. City Trust Safe Deposit and Surety Co., of Phila.; apptd. by the court, June 24, 1905, receiver of the Co.; pres. Allied Republican Clubs of Phila., 1900-9; pres. Penn. State League in 1900 and reelected in 1901; elected pres. Nat. Republican League, at Chicago, 1902, and reelected at Indianapolis, 1904; elected to 59th Cong. for unexpired term; reelected to 60th, 61st, 62nd, 63rd and 64th Congresses.
- MORALES, EUSEBIO A., Minister of Panama to Washington; prime minister of provisional govt., Panama, 1903; born Sinclejo, Colombia, 1865; ed. priv. and pub. schs.; practiced law in Panama, 1887; apptd. judge, 1888; secy. of treas., 1900; Fiscal Comr. to U. S., 1904; apptd. counsel for Panama, assemblyman, 1906-8; secy. of Public Instruction, 1909; married Henriquita Bermudez; add. Stoneleigh Court, Washington, D. C.
- MORGAN, Sir HENRY, buccaneer; born in England, 1635; it is said he was kidnapped when a boy and sold into slavery at Barbados. He became a sailor, and in 1666 was captain of one of the vessels in a buccaneering expedition. He soon rose to command of the buccaneers, and performed many daring feats. In Jan., 1671, he organized a buccaneering expedition against the Spanish settlement at Panama. Jan. 18 he defeated the Spanish, captured the city, and secured great booty. Died Aug., 1688.
- MORGAN, JOHN T., U. S. Senator from Alabama; born Athens, Tenn., June 20, 1824; pursued an academic course; located in Ala. in 1833; studied law and admitted to bar, 1845; joined the Confederate Army in 1861; commd. col., 1862; apptd. brig. gen. in 1863; after war resumed practice in Ala.; elected as a Dem. to U. S. Senate, 1877; reelected, 1882, 1888, 1894, 1900, 1906, and served from Mar. 4, 1907, until his death in Washington, June 11, 1907; member Com. on Interoceanic Canals, advocate of Nicaragua route.
- MORRIS, R. K., storekeeper, The Panama Canal, since May 1, 1914; add. Balboa, Canal Zone.
- MOTSETT, C. H., supt. Panama Railroad; add. Cristobal, Canal Zone.

N

- NELSON, HORATIO, British admiral; born Sept. 29, 1758, died Trafalgar, Oct. 21, 1805; organized a force at Jamaica for invasion of Nicaragua, and seized that territory on Atlantic side, which was held by Great Britain, under guise of a protectorate over the Mosquito kingdom, until 1860.
- NICHOLS, A. B., office engr., dept. Operation and Maintenance, The Panama Canal; add., Culebra, Canal Zone.
- NICUESA, DIEGO de, Spanish commander; born at Baeza, 1465; apptd. gov. of Castilla del Oro, 1508; left Santo Domingo early in 1510 with five ships and about 700 men; suffered shipwreck and great hardships; founded Nombre de Dios; was called to Antigua as governor, but colonists rebelled against him and set him adrift

- in a leaky boat; reported to have been eaten by Indians, 1511.
- NIÑO, PEDRO ALONSO, Spanish navigator; born in Moguer, Spain, 1455; accompanied Columbus on his third voyage, 1498; later was associated with Cristobal Guerra in an expedition to the pearl coast (Venezuela), leaving Spain in June, 1499, and returning with a rich cargo in April 1500; died, 1505.
- NIXON, COURTLAND, maj. 30th inf. U. S. A., dept. qmr. Mount Hope, Canal Zone, and purchasing officer on the Isthmus, 1908-14; born Ft. Brown, army post in Dept. of Texas; ed. pub. and priv. schs., N. Y. and N. J.; grad. Princeton Univ., 1895 (C. E.); apptd. 2d lt. 1st Inf., July 9, 1898; saw service in Cuba and later in Philippines; apptd. capt. Apr. 1904; maj., 1915; married in 1905; add. Plattsburg Bks., N. Y.
- NOBLE, ALFRED, canal commissioner; born Michigan, 1844; C. E. univ. of Mich., 1870; married Georgia Speechly, of Ann Arbor, May 31, 1871; supervisor const. various ry. bridges across Mississippi river, 1886-1904; mem. Nicaragua Canal Bd., 1895; mem. Isthmian Canal Comn., 1899-1903; mem. bd. consulting engineers, Panama Canal, 1905.
- NOBLE, ROBERT E., lt. col. med. corps, U. S. A., gen. inspr., health dept., Canal Zone, until March 31, 1914; born Nov. 5, 1870; apptd. asst. surg., June 29, 1901; capt. asst. surg. June 29, 1906; maj. med. corps, Jan. 1, 1910; lt. col. 1915; add. Surg. Gen., War Dept., Washington, D. C.
- NUTTING, DANIEL C., naval constr. U. S. N., supt. mech. div., dept. Operations and Maintenance, The Panama Canal since Jan. 26, 1914; born Aug. 17, 1869; grad. U. S. Naval Acad.; add. Balboa, Canal Zone.
- O
- OBALDIA, JOSÉ DOMINGO de, pres. of Panama, 1908-10; born David, Panama, July 30, 1845; ed. Bogotá, Col., and New Haven, Conn.; engaged in business in Panama; his father, José de Obaldia, was President of Colombia; served as Minister to Washington; died Panama City, March 1, 1910.
- OBARRIO, NICANOR A. de, first Minister of War and Marine of Panama; born New York, June 3, 1873; apptd. secy. office Register, Dept. of Panama, 1896; apptd. Registrar of Public and Private documents, Dept. Panama, Repub. of Colombia; apptd. prefect prov. Panama, 1902; Minister to Peru, 1908-9; elec. to nat. assembly.
- O'GORMAN, JAMES A., U. S. Senator from N. Y., term 1911-17; born N. Y., May 5, 1860; ed. Col. City of N. Y. and N. Y. Univ. (LL.D. Villanova, Fordham, N. Y. Univ., Georgetown Univ.); mar. Anne M. Leslie, of N. Y., 1884; justice Dist. Court, N. Y., 1893-1900; justice Sup. Court, N. Y., 1900-11; chm. Senate Com. on Interoceanic Canals, opposed repeal of tolls exemption; add. 318 W. 108th st., N. Y., and Wash., D. C.
- OJEDA, ALONSO de, Spanish adventurer; born in Cuenca, Spain, in 1465; joined Columbus on his first voyage; returning to Spain he interested capitalists in financing a new expedition; on May 20, 1499, accompanied by Americus Vespucci, he sailed with four ships on a voyage of discovery along the coast of South America, and visited Darien, which had already been visited by Bastidas. The Spanish monarch divided Central America into two provinces, making Ojeda governor of one, and Nicuesa governor of the other. This was the first attempt to take possession of the mainland in America. In one of his wars with the natives in 1515 he was wounded by a poisoned arrow, and died in Hispaniola.
- ORAM, H. P., supt. northern div., permanent buildings div. since Feb. 18, 1914; add. Culebra, Canal Zone.
- OWEN, WESLEY M., judge; born Covell, Ill., 1869; grad. Ill. Wesleyan Univ. 1894; practiced law, member legis.; raised company and was elected captain Sp.-Am. War; married Ora M. Augustine, Normal, Ill., 1904; apptd. judge supreme court, Canal Zone, 1909, served till March 1911.
- P
- PALMER, AARON H., American contractor; in 1826 contracted with Republic of Central America to build canal through Nicaragua; failed to raise capital and project was abandoned.
- PARKER, CHARLES LIBERMANN, quartermaster; born Wash., D. C.; grad. Corcoran Scientific School, 1897; officer Chinese Imperial Maritime Customs, 1901-03; went to Isthmus 1904; chief clerk quartermaster's dept.; supt. labor quarters and subsistence Gorgona dist.; inspr. quartermaster's dept.; asst. depot qtrm., Mount Hope, 1909.
- PARSONS, WILLIAM BARCLAY, civil engr., mem. Isthmian Canal Comn., 1904; mem. bd. consulting engineers, Panama Canal, 1905; born New York, April 15, 1859; son of William Barclay and Eliza Glass (Livingston) Parsons; A. B., Columbia, 1879, C. E., 1882; (LL.D., St. Johns, Md., 1909); married Anna DeWitt Reed, of New York, May 20, 1884; in gen. practice as engr., chief engr., Rapid Transit Comn. of New York, 1894-1905; advisory engr. Royal Comn. London Traffic, 1904; brig. gen., Chief of Engrs., N. G. S. N. Y.; trustee Columbia Univ. since 1897; mem. Am. Soc. C. E., Instn. Civ. Engrs., Great Britain; author, Track, 1885; Turnouts, 1885; An American Engineer in China, 1900; add., 60 Wall st., New York.
- PASCO, SAMUEL, canal commissioner; born London, Eng., June 28, 1834; removed to Mass.; A. B., Harvard, 1858, A. M., 1872; taught school; non-comm. officer C. S. A., 1861-65; married Jessie Denham of Monticello, Fla., Oct. 28, 1869; practiced law; mem. Florida Ho. of Rep., 1886-87; U. S. Senator, 2 terms, 1887-99; mem. Isthmian Canal Comn., 1899-1904.
- PATERSON, WILLIAM, Scottish adventurer; born in Dumfriesshire, April 1658; in 1695 Scottish Parliament authorized Paterson to plant colonies. A charter was obtained from William III, and a company formed to settle a colony on Isthmus of Darien, to which was given the name

- of New Caledonia. On July 26, 1698, Paterson sailed with 1500 colonists, and founded a settlement called New Edinburgh in the port of Acla. After experiencing most terrible suffering the colony was abandoned in 1699. Paterson was the originator of the plan of the Bank of England; died, 1719.
- PAUNCEFOTE, Sir JULIAN, Lord Pauncefote, British diplomat; born Sept. 13, 1828; died Washington, May 24, 1902; knighted, 1874, raised to peerage as Baron Pauncefote, 1899; Brit. Min. to U. S., 1889-93; ambass. 1893-1902; conducted negotiations for settlement of Behring Sea controversy, Anglo-Venezuelan boundary question, etc.; signed Hay-Pauncefote treaty; participated in negotiations for neutralization of Suez Canal, 1885.
- PEDRARIAS DAVILA (real name Pedro Arias de Ávila); born in Segovia, Spain, in 1440. He distinguished himself in the conquest of Granada; in 1514 apptd. gov. of Panama, and on arrival found a rival in Balboa, who had recently discovered the Pacific Ocean. At first made friends with Balboa, but later accused him of plotting against him and the Spanish crown, and caused him to be executed in 1517. This execution caused him to lose favor in Spain, and not long afterwards he was removed from the governorship; died in Nicaragua in 1530.
- PEPPERMAN, W. LEON, chief of administration, Canal Zone, under Chm. Shonts; active in securing labor for canal; formerly asst. chief insular bureau, War dept.; now asst. to Pres., Interborough R. T. Co., N. Y.
- PERRY, JAMES CLIFFORD, surg., U. S. M. Hosp. Ser., ch. quarantine officer since 1905; born N. C.; ed. Univ. of N. C. and Univ. of Md.; pres. Canal Zone Med. Assn.
- PEYNADO, FRANCISCO J., late minister of the Dominican Republic to the U. S.; born Puerto Plata, Oct. 4, 1867; son of Gen. Jacinto and Carolina (Huttlinger) Peynado; married 1893, Carmen Gonzalez; for twenty years was in active practice of law, and during that time wrote several works connected with Dominican affairs; was three times president of city council of Santo Domingo, and three times president of National Bar Association of Dominican Republic; member of National Board of Education, counsellor of Public Works, etc.; editor and prop. *Las Novedades*, New York City.
- PHILLIPS, JOHN L., brig. gen. med. corps., U. S. A., supt. Ancon hosp., 1905-07; asst. ch. sanitary officer until March 31, 1914; born April 1, 1859; apptd., asst. surg., Dec. 3, 1883; capt. asst. surg., Dec. 3, 1888; maj. med. corps, Oct. 8, 1900; lt. col., Dec. 12, 1908; col. April 13, 1912; brig. gen., 1915; commdg. Walter Reed Gen. Hosp., Takoma Park, D. C.
- PIERCE, CLAUDE CONNOR, surg., Marine Hosp. Ser., quarantine officer, Colon, since 1905; born Chattanooga, Tenn., 1878; ed. Chat. Med. Col.; priv. and 1st lt., hosp. corps, Sp.-Am. War; in charge Tampa Bay quar. sta., 1901-03; went to Isthmus Jan. 1904, and took charge quar. work, Panama; exec. officer for chief sanitary officer, 1905.
- PINZON, MARTIN ALONSO, shipbuilder and navigator of Palos Spain; born there, 1441; commanded the *Pinta*, one of Columbus's caravels, in voyage of 1492; discovered Haiti; was separated from Columbus by a storm, and reached Bayona, in Galicia, whence he despatched a letter to Ferdinand and Isabella announcing his discovery; proceeded to Palos, arriving on same day as Columbus, March 15, 1493; died Palos, 1493.
- PINZON, VICENTE YAÑEZ, brother of Martin Alonso Pinzon, born at Palos, 1460; commanded the *Niña* in Columbus's first voyage; commanded four ships sailing from Palos, Dec. 1499, and was first Spanish navigator to cross the equator, reaching Brazil and discovering the mouth of the Amazon; associated with Juan Diaz de Solis in exploring Gulf of Honduras, 1506; died Palos, 1524.
- PIZARRO, FRANCISCO, Spanish adventurer; born at Trujillo, Estremadura, Spain, 1470; in 1509, with other adventurers he sailed for America; joined Balboa in his expedition to discover the South Sea, and was one of his trusted lieutenants; was engaged in several other expeditions, and in 1519 settled at the new city of Panama. There he organized and conducted a number of expeditions searching for gold, and in 1528, Charles V. gave him authority to conquer and govern Peru. His cruelty and rapacity made him many enemies, and on Sunday, June 26, 1541, he was assassinated while eating his dinner.
- PORRAS, BELISARIO, President Republic of Panama since Oct. 1, 1912; born Las Tablas, Prov. of Las Santos, Panama; married Alicia Castro, of San José, Costa Rica, 1911; received early education in private school at Las Tablas; graduated in law from Nat. Univ. of Bogotá, Colombia, and pursued further course of study at Free Univ. of Brussels; practiced law in Panama, 1885-96; secy. to Circuit Judge of Panama; Consul Gen. of Colombia at Brussels, and later attaché of legation of Colombia at the Quirinal; counsellor of Nicaragua; pres. Municipal Council in Panama City, 1905-6; delegate to Nat. Assembly of Panama; delegate of Panama to The Hague Conference, 1907; served as Minister of Panama at Rio de Janeiro, Minister at San José, Costa Rica, Minister on Special Mission to Washington, D. C.; delegate of Panama to International Sanitary Conference at Buenos Aires, 1910; Minister to the U. S., 1911.
- PRICE, WILLIAM JENNINGS, diplomat; born Lancaster, Ky., 1873; home, Danville, Ky.; grad. Centre Col., 1895; pros. atty. Boyle Co., Ky., 1901-09; apptd. U. S. Minister to Panama, Aug. 20, 1913; add., Panama.

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QUALQUOJOU, CAMILO, born David, Chiriqui, Republic of Panama, May 9, 1866; son of Adolfo and Antonina Arauz de Qualquojou; ed. Eastman Col., Poughkeepsie, N. Y.; married, Jan. 10, 1895, Julia de Roux; 1885-95 clerked for the firm of Guardia é Qualquojou; 1895-1900 partner of firm; 1901 founded firm of C. Qualquojou é

Co., firm dissolving in 1912, when he continued business under his own name.

R

RANDOLPH, ISHAM, civil engineer; born New Market, Va., Mar. 25, 1848; ed. private schools; engineering acquired by study and actual work; engineer various railroads, 1882-1907; mem. Internat. Bd. of Consulting Engrs. for Panama Canal, 1905-06; Advisory Bd. Engrs. Panama Canal, 1907; res., Chicago, Ill.

REDFERN, SAMUEL EDWARD, temp. secy., Chief Clerk, Disburs. Off., and purchasing agent, Isthmian Canal Comn.; born Washington, D. C., Oct. 14, 1865; son of Joseph and Josephine Redfern; ed. Georgetown Univ.; married Marie Holcombe Moore, Aug. 1899; apptd. chief clk. Nicaragua Canal Comn., under Rear Admiral Walker, later chief clk., Isthmian Canal Comn.; afterwards apptd. U. S. Comr. Immigration, New Orleans, La.

REEDER, D. F., physician; born Ky.; grad. Univ. of Louisville, 1905, as M.D.; went to Isthmus, 1906, as asst. to chief of eye, ear, nose and throat clinic; apptd. chief, 1909.

REDELLE, MONTFORT C., Sr. Dist. Judge, Canal Zone; born Ala.; went to Canal Zone, Aug. 1904; on staff of Gov. George W. Davis; apptd. Sr. Dist. Judge, 1907.

REYNOLDS, WILLIAM T., constructor; born Elk Ridge, Md.; went to Isthmus, 1906, as asst. supervisor; apptd. supervisor and asst. supt. of construction; apptd. supt. of construction, 1908.

RIPLEY, JOSEPH, mem. International bd. of consulting engr. of Panama Canal; born St. Clair, Mich., 1854; pub. sch. ed.; U. S. asst. engr. Sault St. Marie canal, 1877; consulting engr. various canal projects in U. S., 1877-1906; mem. int. bd. consulting engr. of Panama Canal, 1905; prin. asst. engr. Panama Canal in charge of designing locks, dams, and regulating works, and asst. chief engr. Panama Canal, 1906-1907.

ROBINSON, ARTHUR L., elec. eng., Canal Zone, 1905-14; supt. mech. div., dept. constr. and engrg., Gorgona, 1910-13; born in Ky.; ed. pub. sch.; grad. Rose Poly. Inst., Terre Haute, Ind., 1895; entered employ Southern Ry. and at time of appt. to Canal Zone was electrical engr. for entire Southern Ry. system.

RODMAN, HUGH, capt. U. S. N., supt. transportation, Div. Canal Transportation, The Panama Canal, since April 1, 1914; born Jan. 6, 1859; add., Ancon, Canal Zone.

ROGERS, RICHARD REID, apptd. general counsel Isthmian Canal Comn., July 1, 1906.

ROOSEVELT, THEODORE, twenty-sixth pres. of U. S.; born New York, Oct. 27, 1858; son of Theodore and Martha (Bulloch) Roosevelt; A. B. Harvard, 1880; (LL.D. Columbia, 1899, Hope Coll., 1901; Yale, 1901; Harvard, 1902; Northwestern, 1903; Univ. of Chicago, 1903; Univ. of Cal., 1903; Univ. of Pa., 1905; Clark Univ., 1905; George Washington Univ., 1909; Cambridge Univ., 1910; D.C.L., Oxford Univ., 1910; Ph.D., Univ. of Berlin, 1910); married Alice Hathaway Lee, Oct. 27, 1880 (died Feb.

14, 1884); married Edith Kermit Carew, of New York, Dec. 2, 1886; mem. N. Y. Legis., 1882-4; del. Rep. Nat. Conv., 1884; U. S. Civil Service Commr., 1889-95; pres. N. Y. Police Bd., 1895-7; asst. secy. navy, 1897-8; resigned to organize with Surg. (now Maj. Gen.) Leonard Wood, 1st U. S. Cav.; promoted colonel for gallantry at battle of Las Guasimas; mustered out Sept. 1898; Gov. New York, Jan. 1, 1899-Dec. 31, 1900; elected V. P. of U. S., Nov. 4, 1900, succeeded to Presidency on death of William McKinley, Sept. 14, 1901; elec. President of the U. S., Nov. 8, 1904; Progressive Party candidate for President, 1912; contributor to magazines and reviews; add., Oyster Bay, N. Y.

ROOT, ELIHU, some time Secretary of War, Secretary of State, and U. S. Senator; born Clinton, N. Y., Feb. 15, 1845; son of Prof. Oren and Nancy Whitney (Butterick) Root; A. B., Hamilton Col., 1864, A. M., 1867; taught at Rome Acad., 1865; LL.B., New York Univ., 1867; (LL.D., Hamilton, 1894; Yale, 1900; Columbia, 1904; New York Univ., 1904; Williams, 1905; Princeton, 1906; Univ. of Buenos Aires, 1906; Harvard, 1907; Wesleyan, 1909; McGill, 1913); married Clara Wales, of New York, Jan. 8, 1878; U. S. Dist. Atty. for Southern Dist. of New York, 1883-5; mem. Alaskan Boundary Comn, 1903; apptd. Secy. of War, Aug. 1, 1899; apptd. Secy. of State, July 7, 1905, and negotiated and signed Root-Cortes and Root-Arosemena treaties; U. S. Senator, 1909 to 1915; apptd. mem. Permanent Bd. of Arbitration at The Hague, 1910; add., New York City.

ROSE, WILLIAM H., maj. Corps of Engrs., U. S. A., elec. engr., dept. Operation and Maintenance, The Panama Canal; born Oct. 24, 1881; grad. U. S. Mil. Acad., 2d lt. eng., June 11, 1903; 1st lt., June 13, 1904; grad. Engineer Sch., 1907; capt. Feb. 27, 1911; maj., 1915; add., Balboa, Canal Zone.

ROSS, DAVID W., chief purchasing dept., Isthmian Canal Comn., 1906; vice-p. Interborough Rapid Transit Co., N. Y.; add., 165 Broadway, New York.

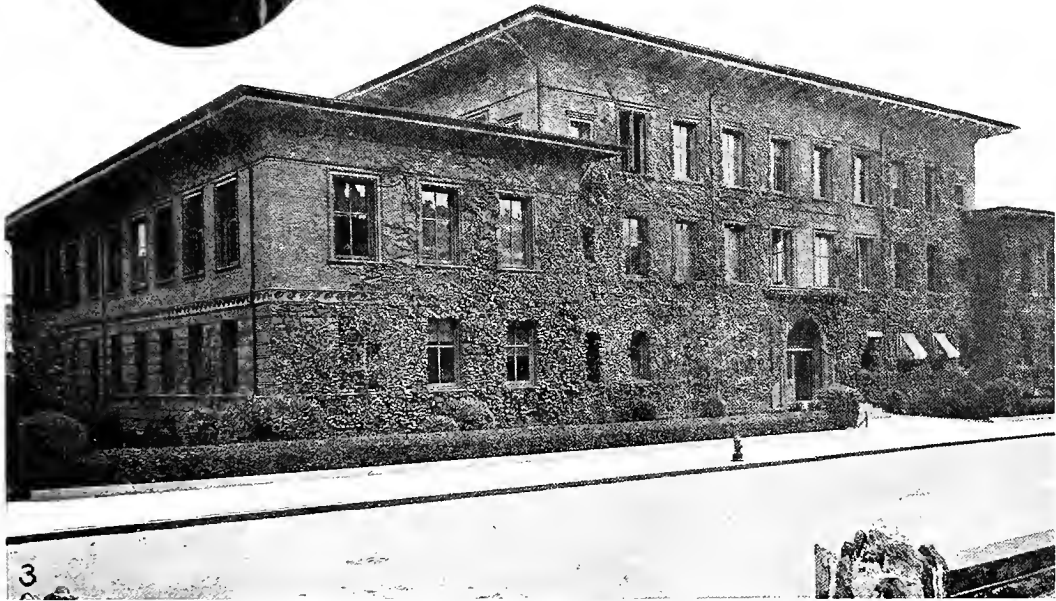
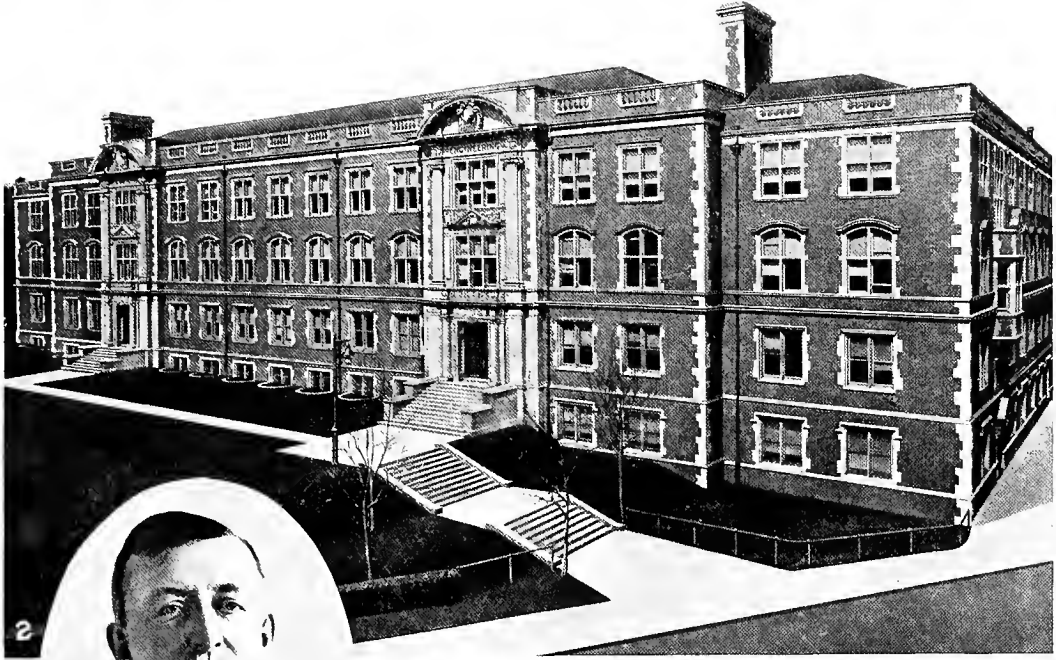
ROSS, JOHN W., med. dir., U. S. N., dir. of hospitals, stationed at Ancon, 1904; retired from active service, Jan. 11, 1905.

ROURKE, LOUIS KEEGAN, commissioner of Public Works, Boston, Mass., since Feb. 1911; born Abington, Mass., Nov. 23, 1873; son of Peter and Margaret Rourke; married Teresa M. Ryan, Jersey City, N. J., May 1907; grad. Abington pub. sch. and Mass. Inst. of Tech. (bachelor of science and civil engineer), 1895; with Boston & Maine R. R., 1895-7; supervisor of tracks Panama railroad, 1897-9; supt. constr. and contractor Guayaquil & Quito R. R., Ecuador, 1899-1903; contr. for Mass. highway comn., 1903-5; supt. tracks and dumps, asst. div. engr., div. engr., all on Culebra div., Panama Canal; organized central div. by combining Culebra and Chagres, and at time of resignation was asst. div. engr., central div., in charge of construction, 1905-10; supt. of streets, Boston, 1910; Clubs—University, Panama; Boston City, Dorchester, Technology of New York; mem. Am. Soc. Civil

- Engrs., Boston Soc. Civil Engrs.; add., City Hall, Boston, Mass.
- ROUSSEAU, HARRY H., civ. engr., U. S. N., engr of Terminal Construction, The Panama Canal, since April 1, 1914; born Troy, N. Y., April 19, 1870; son of William White and Jeanette Parker Rousseau; married Gladys Fargo Squires, New York, 1908; C. E., Rensselaer Poly. Inst., 1891; draftsman and engr. for pvt. cos., 1891-8; apptd. after competitive exam., civ. engr., U.S.N., rank of lt., 1898; engr. Bureau Yards & Docks, Washington, 1899-03; engr. pub. improvements, Mare Island navy yard, Cal., 1903-7; apptd. chief Bureau Yards and Docks, with rank of rear admiral, Jan., 1907; mem. Isthmian Canal Comm., March 16, 1907-March 31, 1914; dir. Panama R. R. Co.; apptd. civil eng. in navy with rank of rear admiral of the lower nine, March 4, 1915; mem. Rensselaer Soc. of Engrs., Engrs. Soc. of Western Pa.; asso. mem. Am. Soc. C. E.; Clubs—Army and Navy, Metropolitan, Chevy Chase (Washington); add., Culebra, Canal Zone.
- RUGGLES, GEORGE H., apptd. to civil administration dept., Cent. Div., Canal Zone, 1909; grade changed to supt. of municipal work, Centl. Div., Canal Zone, Sept. 1, 1909; began canal service, 1904, as instrument man with survey party; born Bloomingdale, Mich.; ed. Lehigh Univ.
- RUGGLES, W. B., asst. engr. La Boca dams div., since 1904.
- S
- SANDS, ROBERT MARCENA, chief clk. Atlantic div., Canal Zone; born Ala., 1876; apptd. secy. to chief of dept. Lock and Dam Const., April, 1907; apptd. chief clerk Atlantic div., July, 1908.
- SAUNDERS, WILLIAM LAWRENCE, engineer, president, and director The Ingersoll-Rand Co., New York, N. Y.; Ingersoll-Sergeant Drill Co.; Rand Drill Co.; New York Imperial Tool Co.; director of A. S. Cameron Steam Pump Works; Edison-Saunders Compressed Air Co.; International Harvester Co.; International Pneumatic Tube Co.; born Nov. 1, 1856, Columbus, Ga.; son of Rev. Dr. W. T. and Eliza Morton Saunders; married Bertha Louise Gaston at Narragansett Pier, R. I., Aug. 4, 1886 (died 1906); ed. Univ. of Pa. (B. S. Univ. of Pa., 1876; D.Sc., Univ. of Pa., 1911); in charge of hydrographic work, 1878; and subaqueous rock excavation, 1879-81; National Storage Co., Communipaw, N. J.; invented apparatus for drilling rock under water, Ingersoll track and bar channelers and gadders for quarrying stone; twice elected mayor of North Plainfield, N. J.; mem. Am. Inst. Mining Engrs.; Am. Soc. Civil Engrs.; Am. Soc. Mech. Engrs.; Nat. Civic Federation; N. Y. Chamb. Com.; Nat. Geog. Soc.; ed. *Compressed Air Magazine*; author "Compressed Air Information," "Compressed Air Production;" co-author "The Subways, and Tunnels of N. Y.;" "Dana and Saunders' Rock Drilling;" Clubs—Engineers', Machinery, Economic, Aero of America; add., 11 Broadway, New York.
- SAVILLE, CALEB MILLS, civil engineer; born Melrose, Mass.; grad. Harvard; married Eliza-
beth Thorndike, 1891; asst. city engr. Malden, Mass., 1891-95; div. engr., Mass. met. water comn., 1895-96; helped to build Wachusett dam; went to Isthmus, Aug., 1907, in charge of investigation for foundation and methods of construction of dams at Gatun and other places; in charge of questions of seepage and matters connected with water supply of Gatun lake; investigator of meteorology and hydrology in connection with canal work; surveyed drainage basin Chagres river and Canal Zone lands.
- SCHAFFER, GEORGE C., paym. U. S. N., disbursing officer on Isthmus, 1904; apptd. treas. of Zone, 1905; add., Norfolk, Va.
- SCHIAVONI, MARIO J., architect, permanent building div., Supply Dept., The Panama Canal, until Dec. 5, 1913.
- SCHILDHAUER, EDWARD, electrical and mech. engr.; born New Holstein, Wis.; grad., 1897, Univ. of Wis.; apptd. elec. and mech. engr. to Isthmian Canal Comm., Nov. 1906; invented special devices in connection with miter gates; designed "electric mule" to convey ships through locks; designed system for controlling all lock machinery from central station; designed Gatun and Miraflores power plants; made special investigations of principal canals in England, France, Belgium, Holland, and Germany.
- SESSIONS, ARTHUR, apptd. supt. of transportation, Central div., July 11, 1908; had charge of all trains moving dirt from Culebra Cut; born Macon, Miss.; went to Isthmus as trainmaster, 1905; asst. supt., 1906.
- SHANTON, GEORGE R., apptd. chief of police, Canal Zone, 1905.
- SHARP, BARTHOLOMEW, English buccaneer; in 1680 endeavored, with a large force, to swoop down on Panama and capture the gold fleet, but was induced by a native cacique to attempt a raid on Santa Maria. The raid was successful in capturing the town and the garrison, but they found little booty. This so enraged the freebooters that they slaughtered their prisoners. Sharp pushed on to Panama, where he was attacked by three Spanish war vessels. He captured all three, but was finally driven off. Later he was tried in London for piracy and acquitted.
- SHERMAN, EDWARD C., civil engr.; born Kingston, Mass., 1877; grad. Mass. Inst. Tech., 1898; engaged in designing Cambridge bridge, Cambridge-Boston, 1900-3; designed river improvements vicinity of Boston, 1905-9; went to Isthmus, 1909, engaged in designing dams and spillways; married Kathrine Buck, 1907.
- SHONTS, THEODORE P., chairman Isthmian Canal Commission, 1905-7; president Interborough Rapid Transit Co., N. Y.; born Crawford Co., Pa., May 5, 1856; son of Dr. Henry Daniels and Margaret Nevin Marshall Shonts; removed with parents in boyhood to Ia.; married Harriet Amelia, daughter of Gen. (afterwards Gov.) Francis M. Drake, of Centerville, Ia., 1882; A. B., Monmouth (Ill.) Col., 1876; after graduation became an accountant and employed by nat. banks in Ia. to standardize and simplify methods of bookkeeping; studied law and prac-

- ticed a short time at Centerville; became associated with Gen. Drake, who had large financial and railroad interests, and who placed much of the work of management and constrn. in his hands; had charge of constrn. of Ia. Cent. R. R., afterwards built the Mo., Ia. & Neb. R. R., and later the Ind., Ill. and Ia. R. R. and was its controlling owner, later selling it to the L. S. & M. S. R. R. Co.; with others secured control of Toledo, St. Louis and Western R. R., which he rehabilitated and made successful; selected by Pres. Roosevelt as chmn. of Isthmian Canal Comm.; pres. Interborough Met. Co., Toledo, St. Louis and Western R. R. Co., C. & A. R. R. Co., Minneapolis & St. Louis R. R. Co., Ia. Central R. R. Co., since Feb. 1907; add., 165 Broadway, New York.
- SHONTZ, G. M., pros. atty., Canal Zone, until April, 1910.
- SIBERT, WILLIAM LUTHER, brig. gen. Corps of Engrs., U. S. A., mem. Isthmian Canal Comm., and div. engr. Atlantic div. Isthmian Canal Comm. in charge of constrn. Gatun Locks and Dam, Breakwaters, Colon Harbor, etc., April 1, 1907-April 1, 1914; born Gadsden, Ala., Oct. 12, 1860; son of William J. and Marietta Ward Sibert; married Mary Margaret Cummings of Brownsville, Tex., Sept., 1887; ed. Univ. of Ala., 1878-80; grad. U. S. Mil. Acad., 1884; apptd. 2d lt. of engr., June 15, 1884; grad. Engr. Sch. of Application; 1887; 1st lt., April 7, 1888; capt., March 31, 1896; maj., April 23, 1904; lt. col., 1909; brig. gen., March 4, 1915; asst. engr. river work in Ky., 1887-92; in charge of constrn. ship channel connecting Great Lakes, 1892-4; in charge engring. river and harbor dist. (Ark.), 1894-8; instr. civ. engring., Engr. Sch. of Application, 1898-9; chief engr. 8th Army Corps, and chief engr. and gen. mgr. Manila & Dagupan R. R., 1899-1900; in charge engring. river and harbor dists. (headquarters Louisville and Pittsburgh) 1900-7; mem. Engrs. Soc. of Western Pa., Am. Soc. C. E.; comdg. Pacific coast artillery dist.; add. Ft. Miley, Cal.
- SLIFER, H. J., gen. mgr., P. R. R. Co., 1908-9.
- SMITH, H. A. A., auditor, The Panama Canal, since April 1, 1914; apptd. exam. accounts, Canal Zone, May 12, 1911; add. Empire, Canal Zone.
- SMITH, J. A., supt. P. R. R. Co. beginning 1909; began railroading on Penna. R. R. as teleg. opr. at Mill Creek, Pa., 1881; pres. Colon Club.
- SMITH, JACKSON, mem. Isthmian Canal Comm., March 1, 1907-Sept. 15, 1908; in charge of labor recruiting under Chm. Shonts and Ch. Eng. Stevens; chief dept. labor and quarters.
- SMITH, RAY LOW, chf. appt. div., The Panama Canal, since 1904; born Braidwood, Ill., Jan. 5, 1877; son of Theodore T. and Lucy O. Smith; married Alice Bates, Braceville, Ill., Dec. 31, 1901; grad. scientific course Valparaiso (Ind.) Col., 1899; Ind. Univ., 1899-1900; supt. schools, Braceville, Ill., three years; clk. U. S. Govt. service, 1903; add., The Panama Canal, Washington, D. C.
- SNEED, J. W., supt. Chagres section P. R. R. to Aug. 19, 1912; born Memphis, Tenn.; went to Isthmus, 1906, as conductor; promoted to supt. Bas Obispo dist., 1907, Chagres section, 1910.
- SOLIS, JUAN DIAZ de, Spanish navigator; born at Lebrija, Spain, 1470; associated with Vicente Pinzon in explorations of Honduras, Yucatan and South American coast; apptd. chief pilot of Spain, 1512; sailed in 1515 to seek southwestern route to the Pacific; entered Rio de la Plata and was killed by Indians, 1516.
- SPOONER, JOHN COIT, author of act of Congress under which Panama Canal was acquired and constructed; born Lawrenceburg, Ind., Jan. 6, 1843; son of Judge Philip L. and Lydia Coit Spooner; married Annie E. Main, of Madison, Wis., Sept. 10, 1868; removed to Madison, Wis., 1859; A. B., Univ. of Wis., 1864; (hon. Ph.B., A.M., 1869, LL.D., 1895; LL.D., Yale, 1908; Columbia, 1909); served pvt. Co. A., Wis. Inf.; pvt. and mil. secy. to Gov. Lucius Fairchild, of Wis., 1866-7; admitted to bar, 1867; asst. atty. gen. of Wis., and in general practice at Madison, 1867-70; practiced at Hudson, Wis., 1870-84; regent of Univ. of Wis., 1882-5; mem. Wis. Assembly, 1872; U. S. Senate, 1885-91, and 1897-1907; resigned March 3, to take effect May 1, 1907; since in law practice at New York; chm. Wis. delegation Rep. Nat. convs., 1888, 1892; candidate for gov. of Wis., 1892; tendered portfolio of Sec. of the Interior by Pres. McKinley, 1898; Brit.-Am. Joint High Comm., 1898, and Atty. Gen. of U. S., 1901, but declined; add., 14 Wall st., New York.
- SPRATLING, L. W., med. inspr., U. S. N., supt. Colon hosp., 1904; add. Navy Recruiting Sta., Atlanta, Ga.
- STANTON, F. C., asst. engr., Chagres div., since Sept. 25, 1907.
- STEARNS, FREDERICK PIKE, mem. international board consulting engineers on Panama Canal; born Calais, Maine, 1851; hon. A. M., Harvard, 1905; D. Sc., Univ. of Pa., 1906; married Addie C. Richardson, of Framingham, Mass., June 21, 1876; chief engr. Mass. Met. water works, 1895-1907; mem. bd. of consulting engr. Panama Canal, 1907-1909.
- STEPHENS, JOHN LLOYD, organized Panama Railroad Company with Wm. H. Aspinwall and Henry Chauncey, and was first v. p., and later pres. of co.; born Shrewsbury, N. J., Nov. 28, 1805; ed. Columbia Col.; practiced law in New York; 1839 apptd. special agent of U. S. to Central America by Pres. Van Buren; assisted in establishing first line of steamers between New York and Bremen; died in New York City Oct. 10, 1852; monument erected to him on highest point of Panama Railroad.
- STERNES, F. E., asst. engr., lock gates and protective works; mem. staff Washington Off., Isthmian Canal Comm., until Oct. 1908, then transferred to Canal Zone.
- STEVENS, JOHN F., chief engr., Panama Canal, 1905-April 1, 1907, and chm. Isthmian Canal Comm., Feb.-March, 1907; born Gardiner, Maine, April 25, 1853; son of John and Harriet Stevens; married Harriet T. O'Brien, Dallas, Tex., Jan. 6, 1887; asst. engr., City of Minneapolis, 1874-6; ch. engr., Sabine Pass and

- Northwestern Ry., 1876-9; asst. engr., D. & R. G. Ry., 1879-80; C., M. & St. P. Ry., 1880-2; div. engr., Canadian Pac. Ry., 1882-6; asst. engr., C., M. & St. P. Ry., 1886; prin. asst. engr., Duluth, South Shore & Atlantic Ry., 1887-9; asst. engr. Spokane Falls & Northern Ry., 1889; prin. asst. engr., 1889-93; asst. chief engr., 1893-5, chief engr., 1895-1902; gen. mgr., 1902-3, G. N. Ry.; chief engr., 1903-4; 2d v. p. 1904-5, C., R. I. & P. Ry. Co.; v. p., N. Y., N. H., & H. R. R., in charge operation, 1907-9; pres. Spokane, Portland & Seattle Ry., Ore. Electric Ry., Oregon Trunk Ry., Pacific & Eastern Ry., 1909-11; mem. Am. Soc. C. E.; add., 45 Wall st., New York.
- STICKLE, H. W., maj. Corps of Engrs., U. S. A.; born Anamosa, Iowa; grad. West Point, 1899; apptd. asst. div. engr. Gatun locks div., 1907; asst. engr., Atlantic div., 1909.
- STIMSON, HENRY L., born New York, Sept 21, 1867; son of Lewis Atterbury and Candace (Wheeler) Stimson; A.B., Yale, 1888; A.M., Harvard, 1889; Harvard Law Sch., 1889-90; married Mabel Wellington White of New Haven, 1893; admitted to bar, 1891; U. S. atty. Southern Dist., N. Y., 1906-9; Rep. candidate for Gov. N. Y., 1910; Secy. of War in Cabinet of Pres. Taft, May, 1911-March 5, 1913, and active in supervising affairs of Panama Canal; add. 32 Liberty st., New York.
- STONE, A. K., railroad man; born Ind.; common sch. ed.; brakeman, conductor, train master, etc., on various railroads; went to Isthmus, 1905, as train master central div., 1910; master of transportation, Panama R. R.
- STRICKLAND, G. B., res. engr., 1st dist., dept. of Constrn. and Eng., Corozal, until April 1, 1909.
- STROM, CARL E., ch. mech. engr., Canal Zone, 1904; apptd. supt. motive power and machinery, Canal Zone, 1905.
- SULLIVAN, J. G., first asst. engr. under Ch. Eng. Stevens; chief engr. Canadian Pacific Ry.
- ## T
- TAFT, WILLIAM HOWARD, twenty-seven:th President of United States; official head of Isthmian affairs as Secy. of War under Pres. Roosevelt; born Cincinnati, Ohio, Sept. 15, 1857; son of Alphonso and Louisa Maria (Torrey) Taft; grad. Woodward High Sch., Cincinnati, 1874; B.A., Yale, 1878; LL.B., Cincinnati Law Sch., 1880; (LL.D., Yale, 1893; Univ. of Pa., 1902; Harvard, 1905; Miami Univ., 1905; State Univ. of Ia., 1907; Wesleyan, 1909; Princeton, 1912; McGill Univ., 1913; D.C.L., Hamilton, 1913); married Helen Herron, Cincinnati, June 19, 1886; admitted to Ohio bar, 1880; law reporter, Cincinnati *Times*, and later of Cincinnati *Commercial*, 1880; asst. pros. atty., Hamilton Co., O., 1881-3; practiced law at Cincinnati, 1883-7; judge, Superior Ct., Cincinnati, 1887-90; sol. gen. of U. S., 1890-2; U. S. circuit judge, 6th circuit, 1892-1900; pres. U. S. Philippine Comn., 1900-1; first civ. gov. P. I., 1901-4; sent to Cuba by Pres. Roose-
- velt to adjust insurrection there, 1906, and acted for short time as prov. gov.; elec. President of U. S., for term 1909-13; professor of law, Yale Univ.; add. New Haven, Conn.
- TENNEY, M. W., asst. engr., supt. constrn. Culebra, Canal Zone, since Feb. 3, 1913.
- THATCHER, MAURICE HUDSON, mem. Isthmian Canal Comn., April 12, 1910-Aug. 8, 1913; head dept. civil administration, Canal Zone, May 13, 1910-Aug. 8, 1913; born Chicago, Ill., Aug. 15, 1870; son of John C. and Mary T. (Graves) Thatcher; ed. pub. and pvt. schools, Ky.; studied law at Frankfort, Ky., 1896-8; married Annie Bell Chinn, of Frankfort, May 4, 1910; admitted to Ky. bar, 1898; asst. atty. gen. of Ky., 1898-1900; asst. U. S. Atty. for Western Dist. of Ky., 1901-6; in gen. practice, Louisville, 1906-10; state inspr. and examr. for Ky., 1908-10; practicing law at Louisville; add., Paul Jones Bldg., Louisville, Ky.
- THOM, LESLIE GRANT, civil engr.; connected with municipal improvements, Colon and Panama; supt. municip. eng., Atlantic div., Gatun.
- THOMPSON, JOHN W., magistrate, The Panama Canal, since April 1, 1914; add., Cristobal, Canal Zone.
- THOMSON, THADDEUS AUSTIN, diplomat; born Burleson Co., Tex., 1853; home, Austin, Tex.; ed. Salado Col., Tex. Mil. Inst.; ad. to bar, 1883; planter, ranch owner; apptd. Minister to Colombia, June 10, 1913; negotiated and signed treaty with Colombia.
- THURSTON, LORRIN ANDREWS, lawyer; born Honolulu, H. T., 1858; grad. Columbia Law Sch., N. Y.; married Harriet Potter, St. Joseph, Mich., 1894; Min. Interior, Kingdom of Hawaii, 1887-90; mem. House of Nobles, 1892; Mem. Com. of Safety, 1893; mem. Advisory Council, prov. govt., 1893; Spl. Comr. to U. S. to negotiate annex., 1893; Min. to U. S., 1893; Min. of Haw. Republic to U. S., 1894; to Portugal, 1894; Spl. Comr. to U. S. to negotiate treaty of annex., 1897; pres. Hawaiian *Gazette* Co., Olaa Sugar Co.; int. in other companies; author; res., Honolulu, H. T.
- TOBEY, E. C., paym., U. S. N., apptd. ch. dept. material and supplies, Canal Zone, 1904-07; later in Bu. Supplies and Accounts, Navy Dept., Washington, D. C.
- TUCKER, HERMAN FRANKLIN, apptd. designing engr. dept. of lock and gate and dam constrn., Culebra, 1907; apptd. designing engr. masonry and lock design, at Culebra, 1908; born Weston, Mass., 1878; grad. Harvard, 1901; engr. for Dominion Eng. & Constrn. Co., Montreal, 1906.
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- VALDÉS, RAMON M., late Minister of Panama to Washington; ed. at Cartagena; rep. of Panama in Colombian Cong.; later secy. of Public Education; practiced law; apptd. Secy. of State and of Justice by Pres. Obaldia, and continued during interim term of Pres. Mendoza; apptd. Panama's spec. del. to the Hudson and Fulton Centennial Celebration at New York, 1909; apptd. Minister to Washington by Pres.



BUILDINGS OF THE UNIVERSITY OF PENNSYLVANIA, WHERE MANY MEN WHO WORKED ON THE CANAL AND WHO SUPPLIED EQUIPMENT, RECEIVED THEIR SCIENTIFIC TRAINING

1. Provost Edgar F. Smith.
2. Engineering building.
3. Harrison laboratory of chemistry.



Porras, but was forced to resign on account of ill health.

VERNON, EDWARD, British admiral; born Westminster, Nov. 12, 1684; entered British navy in 1700, and served during war of Spanish Succession, 1701-13; entered Parliament in 1722, retaining his position in the navy; bombarded and took Porto Bello, 1739; repulsed from Cartagena in 1741, and in 1746 was stricken from the list of admirals for publishing pamphlets reflecting on the admiralty; died at Nacton, Suffolk, Eng., Oct. 30, 1751.

W

WALKER, J. A., supt. dept. Operation and Maintenance, The Panama Canal, since April 1, 1914; add., Balboa, Canal Zone.

WALKER, JOHN G., rear adm., U. S. N.; chmn. Nicaragua Canal Comn.; chmn. Isthmian Canal Comn. March 8, 1904-March 31, 1905; born Hillsboro, N. H., March 25, 1835; son of Alden and Susan (Grimes) Walker; married Rebecca White in Sept. 1866; apptd. to U. S. Nav. Acad. from Iowa, 1850; grad. at head of his class in 1856; apptd. lt., 1858; instr. of math. at Annapolis, 1859-60; served in Civil War under Farragut and Porter; 1866 specially promoted to comdr.; ch. Bu. Nav., 1881; made acting rear adm. and given command of the White Squadron, 1889; ch. of Pacific Squadron, and apptd. full rear adm., 1894; retired in 1897; died, 1907.

WALLACE, JOHN FINDLEY, first chief engr., Panama Canal; conducted extensive surveys and examinations and created the initial organization; born Fall River, Mass., Sept. 10, 1852; son of David A. and Martha Findley Wallace; married Sarah E. Ulmer, of Monmouth, Ill.; student Monmouth (Ill.) Col.; C. E. of Wooster, 1882; (LL.D. Monmouth Col., 1904; Sc. D., Armour Inst., Chicago); asst. U. S. engr. on upper Mississippi River and improvements of Rock Island Rapids, 1871-6; co. surveyor and city engr., 1876-8; chief engr. and supt. Peoria & Farmington R. R., 1878-81; Central Ia. Ry. in Ill., 1881-3; constr. engr. and master of transportation Central Ia. Ry., 1883-6; bridge engr. A. T. & S. F. R. R., 1886-9; res. engr., Chicago, Madison & Northern R. R., 1889-91; with L. C. R. R., 1891-4, as engr. of constr. 1891-2; chief engr., 1892-7; asst. to 2d v. p., 1897-1900; asst. gen. mgr., 1900-1; gen. mgr., 1901-4; first chief engr. Panama Canal, 1904; Isthmian Canal Comn. and v. p. and gen. mgr. Panama Railroad and Steamship Co., 1905; designed and constructed World's Fair terminals, Chicago, 1892; also new pass. terminals for C. & N. W. R. R., Chicago; pres. of Electric Properties Co., New York, since 1906; also chmn. Bd. Dirs. Westinghouse, Church, Kerr & Co.; past pres. Am. Soc. C. E., Am. Ry. Engrg. Assn., Western Soc. Engrs.; mem. Instn. Civ. Engrs., Great Britain; clubs—Century, Railroad, Engineers, Sleepy Hollow Country (New York), Metropolitan, Cosmos, (Washington), Chicago, Union League (Chicago); add., 37 Wall st., New York.

WARDLAW, R. H., gen. cashier P. R. R.; born

S. C.; went to Isthmus, 1889, as freight agent Panama; apptd. gen. cashier, 1897.

WARREN, H. P., engr. of constr., Panama Railroad relocation, until 1911.

WARWICK, WALTER W., exam. acct. and aud. Canal Zone, since June, 1908; native of Lucasville, Ohio; ed. pub. sch., Cincinnati; grad. Law Sch. Cin. Col., 1890; practiced in Cincinnati, later went to Washington to enter govt. employ; chief law clk. U. S. Treasury, 1904; apptd. to Wash. Off. Isthmian Canal Comn., 1904, and June 1908, transferred to Isthmus; asso. jus. Supreme Court, Canal Zone, March 1911-May 1911; transferred to Washington as mem. President's Com. on Economy and Efficiency; married Minnie McCormick, 1906.

WATT, JOHN M. G., apptd. asst. office engr., dept. of constr. and engrg., Canal Zone, Feb. 1, 1909.

WEAVER, JOHN HEISLEY, pres. J. H. Weaver & Co., Phila.; son of George Weaver; ed. pub. schs. and at Dickinson Sem., Williamsport, Pa.; entered service of P. R. R. Co., as messenger boy, and later became clerk; employed by Williamsport Iron & Nail Co., as mgr., and subsequently engaged with Donaldson & Thomas, Phila., as salesman; 1887 embarked in business for himself; one of the pioneers in development of coal areas in Indiana Co., Pa.; mem. Pa. Soc., Union League, Phila.

WEIDMAN, CHARLES E., chief, Fire Dept., Canal Zone; born Illinois; ed. pub. schools; went to Isthmus, 1905; made fire chief, Dec., 1905.

WELLS, GEORGE M., res. engr., dept. Operation and Maintenance, The Panama Canal, since April 1, 1914; office engr. in local chg. municipal engrg., Gatun, June, 1912; add. Culebra, Canal Zone.

WHITE, HENRY, diplomatist; born Baltimore, March 29, 1850; ed. priv. schs., U. S. and France; (LL.D. St. Andrew's, Scot.); married Margaret Stuyvesant Rutherford, N. Y., 1879; secy. legation, Vienna, London, 1883-86; secy. embassy, London, 1897-05, frequently chargé d'affaires, participating in negotiation of Hay-Pauncefote treaty; del. to conf. at Algiciras, 1906; ambass. to Italy, 1905-7, to France, 1907-09; del. to Pan-Am. conf., Buenos Aires, spl. ambass. to Chile, 1910; add., 1624 Crescent Pl., N. W., Washington, D. C.

WHITMER, ROBERT FOSTER, pres. William Whitmer & Sons, Inc., Phila., contractors with Panama Canal; born Hartleton, Pa., Jan. 25, 1864; son of William and Catharine A. Whitmer; ed. State Col., and Lafayette (B. A., Lafayette); married Mary Packer at Sunbury, Pa., April, 1891; clubs—University, Union League, Racquet; add., Franklin Bank Bldg., Phila., Pa.

WHITMORE, SAMUEL WASHINGTON, pres. The Whitmore Mfg. Co., Cleveland, O., contractors with Panama Canal; born Llewellyn Park, Orange, N. J.; son of Samuel McCready and Lavinia A. Whitmore; ed. Geneva, N. Y.; married Ethlinda Stuckenholz at Cleveland, O., Aug. 5, 1884; clubs—Cleveland Athletic; add., Erie Railroad and E. 37th st., Cleveland, Ohio.

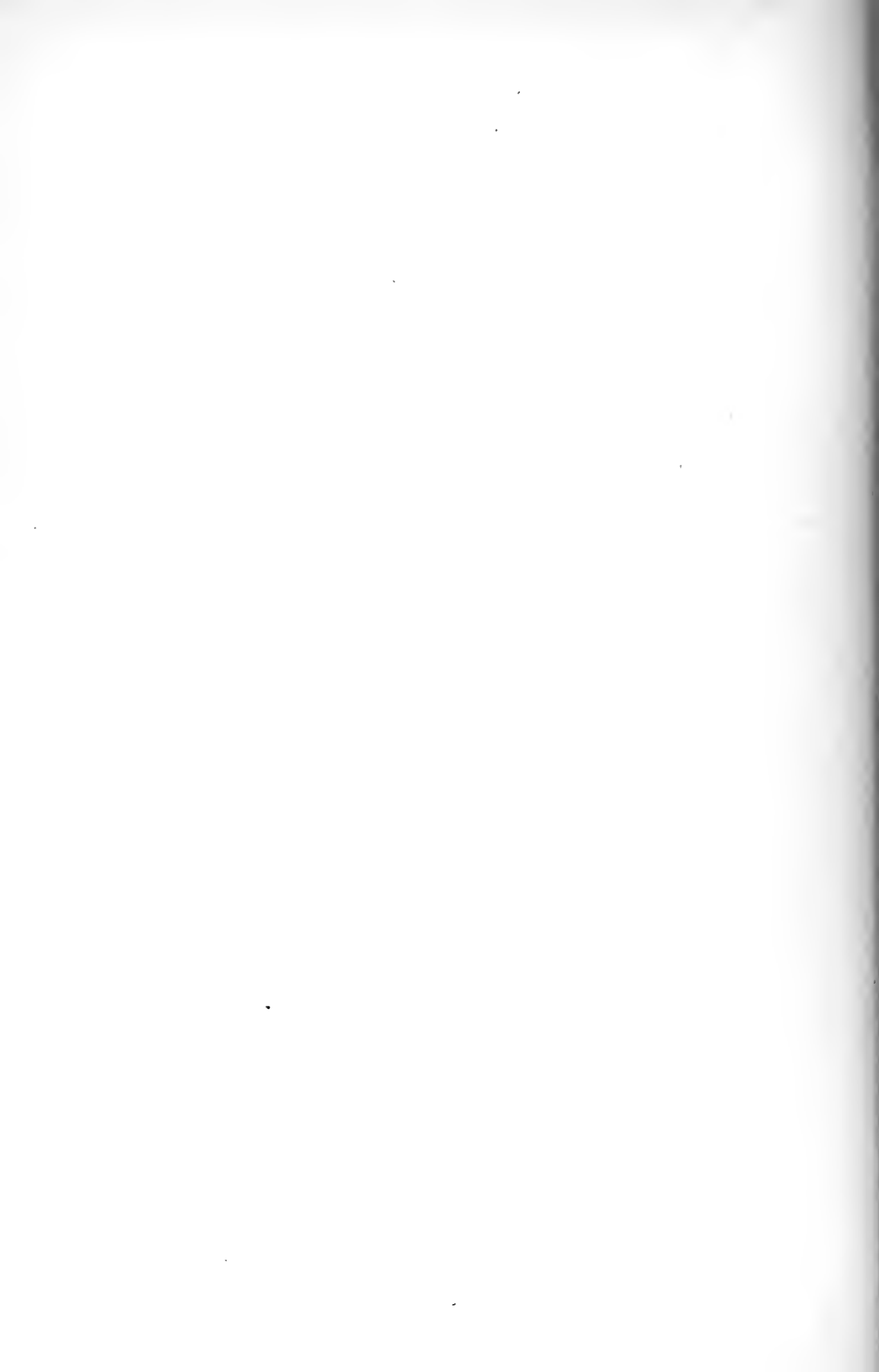
WIGGINS, P. R., gen. engr., in charge of field work, 3d div., Chagres div., Culebra, 1910-11.

- WILLIAMS, EDWARD J., apptd. disbursing officer, Isthmian Canal Comn., Nov. 21, 1905, serving until canal was completed; native of West Salem, Wis.; ed. pub. sch., LaCrosse, Wis., grad., 1889, West Salem High Sch.; grad. Northwestern Univ., 1895; 1897-1905 paym. and traveling auditor C. & N. W. Ry.; married Helen Mary Burton, Dec. 7, 1907.
- WILLIAMSON, S. B., div. engr., Pacific div., until Dec. 11, 1912.
- WILLSON, F. D., ch. hydrographer, The Panama Canal, since April 1, 1914; apptd. inspr. meteorological and hydrographic work under 3d. div. dept. constrn. and enrgg, Canal Zone, 1907; add., Culebra, Canal Zone.
- WILSON, EUGENE TRIMBLE, lt. col. Coast Art. Corps, U. S. A., ret., served in charge of subsistence dept., Canal Zone; born May 28, 1867; grad. U. S. Mil. Acad. and add. 2d lt., art. corps., June 11, 1888; 2d lt., Dec. 4, 1888; 1st lt., Feb. 12, 1895; capt., Feb. 2, 1901; maj., Jan. 25, 1907; lt. col. Coast Art. Corps., Dec. 5, 1911; grad. Sch. of Submarine Defence, 1906; Army War Col., 1907; apptd. to charge of subsistence dept., Canal Zone, June 30, 1908; add., R. F. D. 7, London, Ohio.
- WILSON, WOODROW, twenty-eighth President of the United States; born Staunton, Va., Dec. 28, 1856; son of Rev. Joseph R. and Jessie (Woodrow) Wilson; ed. Davidson Col., 1874-5; A.B., Princeton, 1879, A.M., 1882; grad. in law, Univ. of Va., 1881; prac. law at Atlanta, Ga., 1882-3; post grad. work at Johns Hopkins, 1883-5; Ph.D., 1886; (LL.D., Wake Forest, 1887; Tulane, 1898; Johns Hopkins, 1902; Rutgers, 1902; Univ. of Pa., 1903; Brown, 1903; Harvard, 1907; Williams, 1908; Dartmouth, 1909; Litt. D., Yale, 1909); married Ellen Louise Axson, of Savannah, Ga., June 24, 1885 (died 1914); pres. 1902-10, Princeton Univ.; gov. of N. J., 1911-13 (resigned); elec. President for term 1913-17.
- WOOD, LEONARD, maj. gen., U. S. A.; born Winchester, N. H., Oct. 9, 1860; son of Charles Jewett and Caroline E. (Hagar); grad. Harvard (M.D.) 1884; (LL.D., Harvard, Williams, Univ. of Pa.); married Louisa Condit Smith, Washington, D. C., Nov. 18, 1890; apptd. asst. surg. U. S. A., Jan. 5, 1886; capt., asst. surg., Jan. 5, 1891; colonel 1st U. S. Vol. Cav., 1898; brig. gen., July 8, 1898, for services at Las Guasimas and San Juan Hill; maj. gen., Dec. 7, 1898; hon. disch. from vol. service, 1899; brig. gen., U. S. A., 1899; maj. gen. 1903; awarded Cong. med. honor, 1898, for disting. conduct in campaign agt. Apaches 1886; mil. gov. Cuba, 1899-1902; gov. Moro Prov., P. I., 1903-6; commander Phil. div., 1906-8; com. Dept. of East, 1908-9; spl. ambass. Argentina, 1910; chief of staff, U. S. A., 1910-14, and had supervision of plans for fortification of Panama Canal; com. Dept. of East; add. Governors Island, N. Y.
- WOOD, ROBERT E., maj. 3d Cav., U. S. A., ch. qmr., The Panama Canal; born Kansas City, Mo., June 10, 1879; ed. pub. sch.; grad. U. S. Mil. Acad., 1900; 1st lt., Feb. 2, 1909; capt., May 3, 1911; maj., 1915; ordered to Isthmus qmr. dept., 1905; add. Culebra, Canal Zone.
- WOOD, WILLIAM M.; born Spring Valley, N. Y.; grad. Agric. and Mech. Col., Texas, as civil engr.; went to Isthmus, 1904, as chief clerk disbursing dept.; apptd. asst. disbursing officer, Aug. 10, 1910.
- WRIGHT, DANIEL E., supt. municipal work and pipe lines, The Panama Canal; apptd. asst. engr. Central Div., Canal Zone, Aug. 9, 1909.
- WRIGHT, LUKE E., ex-Secretary of War; born in Tenn., 1846; son of Archibald W., chief justice of Tenn.; admitted to Tenn. bar; (LL.D., Hamilton, 1903); married Kate, daughter of Admiral Semmes, C. S. N.; had three sons in service, Span.-Am. War; atty.-gen. Tenn., mem. Philippine Com., 1900-4 (pres. 1903-4); civil gov. P. I., 1904; gov. gen. until 1906; ambassador to Japan, 1906-7; Secretary of War in Roosevelt cabinet, 1908-9, with supervision of Panama Canal; add., Memphis, Tenn.
- WYSE, LUCIEN NAPOLEON BONAPARTE, French naval officer; obtained concession from Colombia for Isthmian Canal across Panama, 1878; sold concession in 1879 to de Lesseps.

Z

- ZINN, A. S., res. engr. Central Div., The Panama Canal, since Oct. 1906; born Logansport, Ind.; ed. country sch.; grad. Logansport H. S., 1884; three years study Rose Poly. Inst., Terre Haute, Ind.; asst. engr. track elevation, Chicago Belt Ry.; div. engr. and prin. asst. engr. for R. I. Ry. and later engr. of constrn. for Mich. Cent. Ry.; mem. Am. Soc. C. E., Western Soc. Engrs., Am. Eng. and Maintenance of Way Assn.; married June, 1897, to Mabel Gray Cooper at Joliet, Ill.

APPENDIX



APPENDIX

TREATIES BETWEEN THE UNITED STATES AND FOREIGN COUNTRIES RELATING TO INTEROCEANIC COMMUNICATIONS

NEW GRANADA (COLOMBIA)

DECEMBER 12, 1846

TREATY OF PEACE, AMITY, NAVIGATION, AND COMMERCE

This treaty was signed at Bogotá by Benjamin A. Bidlack, United States Chargé d'Affaires, and Manuel Maria Mallarino, Secretary of State and Foreign Relations of New Granada. Ratifications were exchanged June 10, 1848. Articles I to XXXIV inclusive provide for reciprocal trade relations, define the duties of each country in the treatment of vessels and cargoes during war, etc. The essential part of the treaty as affecting the Isthmus of Panama is Article XXXV, reading literally as follows:

The United States of America and the Republic of New Granada desiring to make as durable as possible, the relations which are to be established between the two parties by virtue of this treaty, have declared solemnly, and do agree to the following points:

1. For the better understanding of the preceding articles, it is, and has been stipulated, between the high contracting parties, that the citizens, vessels and merchandise of the United States shall enjoy in the ports of New Granada, including those of the part of the Granadian territory generally denominated *Isthmus of Panamá*, from its southernmost extremity until the boundary of Costa Rica, all the exemptions, privileges and immunities, concerning commerce and navigation, which are now, or may hereafter be enjoyed by Granadian citizens, their vessels and merchandise; and that this equality of favors shall be made to extend to the passengers, correspondence and merchandise of the United States in their transit across the said territory, from one sea to the other. The Government of New Granada guarantees to the Government of the United States, that the right of way or transit across the *Isthmus of Panamá* upon any modes of communication that now exist, or that may be, hereafter, constructed, shall be open and free to the Government and citizens of the United States, and for the transportation of any articles of produce, manufactures or merchandise, of lawful commerce, belonging to the citizens of the United States; that no other tolls or charges shall be levied or collected

upon the citizens of the United States, or their said merchandise thus passing over any road or canal that may be made by the Government of New Granada, or by the authority of the same, than is under like circumstances levied upon and collected from the Granadian citizens: that any lawful produce, manufactures or merchandise belonging to citizens of the United States, thus passing from one sea to the other, in either direction, for the purpose of exportation to any other foreign country, shall not be liable to any import duties whatever; or having paid such duties, they shall be entitled to drawback upon their exportation: nor shall the citizens of the United States be liable to any duties, tolls, or charges of any kind to which native citizens are not subjected for thus passing the said Isthmus. And, in order to secure to themselves the tranquil and constant enjoyment of these advantages, and as an especial compensation for the said advantages and for the favours they have acquired by the 4th, 5th and 6th articles of this Treaty, the United States guarantee positively and efficaciously to New Granada, by the present stipulation, the perfect neutrality of the beforementioned Isthmus, with the view that the free transit from the one to the other sea, may not be interrupted or embarrassed in any future time while this Treaty exists; and in consequence, the United States also guarantee, in the same manner, the rights of sovereignty and property which New Granada has and possesses over the said territory.

* * * *

5. If, unfortunately, any of the articles contained in this treaty should be violated or infringed in any way whatever, it is expressly stipulated that neither of the two contracting parties shall ordain or authorize any acts of reprisal, nor shall declare war against the other on complaints of injuries or damages, until the said party considering itself offended shall have laid before the other a statement of such injuries or damages, verified by competent proofs, demanding justice and satisfaction, and the same shall have been denied, in violation of the laws and of international right.

6. Any special or remarkable advantage that one or the other power may enjoy, from the foregoing stipulations, are and ought to be always understood in virtue and as in compensation of the obligations they have just contracted and which have been specified in the first number of this article.

GREAT BRITAIN

APRIL 19, 1850

CLAYTON-BULWER TREATY

The United States of America and Her Britannic Majesty, being desirous of consolidating the relations of amity which so happily subsist between them, by setting forth and fixing in a Convention their views and intentions with reference to any means of communication by Ship Canal, which may be constructed between the Atlantic and Pacific Oceans, by the way of the River San Juan de Nicaragua and either or both of the Lakes of Nicaragua or Managua, to any port or place on the Pacific Ocean,—The President of the United States has conferred full powers on John M. Clayton, Secretary of State of the United States; and Her Britannic Majesty on the Right Honourable Sir Henry Lytton Bulwer, a Member of Her Majesty's Most Honourable Privy Council, Knight Commander of the Most Honourable Order of the Bath, and Envoy Extraordinary and Minister Plenipotentiary of Her Britannic Majesty to the United States, for the aforesaid purpose; and the said Plenipotentiaries having exchanged their full powers, which were found to be in proper form, have agreed to the following articles:

ARTICLE I.

The Governments of the United States and Great Britain hereby declare, that neither the one nor the other will ever obtain or maintain for itself any exclusive control over the said Ship Canal; agreeing, that neither will ever erect or maintain any fortifications commanding the same, or in the vicinity thereof, or occupy, or fortify, or colonize, or assume, or exercise any dominion over Nicaragua, Costa Rica, the Mosquito coast, or any part of Central America; nor will either make use of any protection which either affords or may afford, or any alliance which either has or may have to or with any state or people, for the purpose of erecting or maintaining any such fortifications, or of occupying, fortifying, or colonizing Nicaragua, Costa Rica, the Mosquito coast, or any part of Central America, or of assuming or exercising dominion over the same; nor will the United States or Great Britain take advantage of any intimacy, or use any alliance, connection, or influence that either may possess with any state or government through whose territory the said canal may pass, for the purpose of acquiring or holding, directly or indirectly, for the citizens or subjects of the one, any rights or advantages in regard to commerce or navigation through the said canal which shall not be offered on the same terms to the citizens or subjects of the other.

ARTICLE II.

Vessels of the United States or Great Britain traversing the said canal shall, in case of war between the contracting parties, be exempted from blockade, detention, or capture by either of the belligerents; and this provision shall extend to such a distance from the two ends of the said canal as may hereafter be found expedient to establish.

ARTICLE III.

In order to secure the construction of the said canal, the contracting parties engage that if any such canal shall be undertaken upon fair and equitable terms by any parties having the authority of the local government or governments through whose territory the same may pass, then the persons employed in making the said canal, and their property used, or to be used, for that object, shall be protected, from the commencement of the said canal to its completion, by the Governments of the United States and Great Britain, from unjust detention, confiscation, seizure, or any violence whatsoever.

ARTICLE IV.

The contracting parties will use whatever influence they respectively exercise with any state, states, or governments possessing or claiming to possess any jurisdiction or right over the territory which the said canal shall traverse, or which shall be near the waters applicable thereto, in order to induce such states or governments to facilitate the construction of the said canal by every means in their power. And, furthermore, the United States and Great Britain agree to use their good offices, wherever or however it may be most expedient, in order to procure the establishment of two free ports, one at each end of the said canal.

ARTICLE V.

The contracting parties further engage, that when the said canal shall have been completed, they will protect it from interruption, seizure, or unjust confiscation, and that they will guarantee the neutrality thereof, so that the said canal may forever be open and free, and the capital invested therein secure. Nevertheless, the Governments of the United States and Great Britain, in according their protection to the construction of the said canal, and guaranteeing its neutrality and security when completed, always understand that this protection and guarantee are granted conditionally, and may be withdrawn by both governments, or either government, if both governments, or either government, should deem that the persons or company undertaking or managing the same adopt or establish such regulations concerning the traffic thereupon as are contrary to the spirit and intention of this convention, either by making unfair discrimination in favor of the commerce of one of the contracting parties over the commerce of the other, or by imposing oppressive exactions or unreasonable tolls upon the passengers, vessels, goods, wares, merchandise, or other articles. Neither party, however, shall withdraw the aforesaid protection and guarantee without first giving six months' notice to the other.

ARTICLE VI.

The contracting parties in this convention engage to invite every state with which both or either

have friendly intercourse to enter into stipulations with them similar to those which they have entered into with each other, to the end that all other states may share in the honor and advantage of having contributed to a work of such general interest and importance as the canal herein contemplated. And the contracting parties likewise agree that each shall enter into treaty stipulations with such of the Central American states as they may deem advisable, for the purpose of more effectually carrying out the great design of this convention, namely, that of constructing and maintaining the said canal as a ship communication between the two oceans for the benefit of mankind, on equal terms to all, and of protecting the same; and they also agree, that the good offices of either shall be employed, when requested by the other, in aiding and assisting the negotiation of such treaty stipulations; and should any differences arise as to right or property over the territory through which the said canal shall pass between the states or governments of Central America, and such differences should in any way impede or obstruct the execution of the said canal, the Governments of the United States and Great Britain will use their good offices to settle such differences in the manner best suited to promote the interests of the said canal, and to strengthen the bonds of friendship and alliance which exist between the contracting parties.

ARTICLE VII.

It being desirable that no time should be unnecessarily lost in commencing and constructing the said canal, the Governments of the United States and Great Britain determine to give their support and encouragement to such persons or company as may first offer to commence the same, with the necessary capital, the consent of the local authorities, and on such principles as accord with the spirit and intention of this convention; and, if any persons or company should already have, with any state through which the proposed ship canal may pass, a contract for the construction of such canal as that specified in this convention, to the stipulations of which contract neither of the contracting parties in this convention have any just cause to object, and the said persons or company shall moreover have made preparations, and expended time, money, and trouble, on the faith of such contract, it is hereby agreed that such persons or company shall have a priority of claim over every other person, persons, or company to the protection of the Governments of the United States and Great

Britain, and be allowed a year from the date of the exchange of the ratifications of this convention for concluding their arrangements, and presenting evidence of sufficient capital subscribed to accomplish the contemplated undertaking; it being understood that if, at the expiration of the aforesaid period, such persons or company be not able to commence and carry out the proposed enterprise, then the Governments of the United States and Great Britain shall be free to afford their protection to any other persons or company that shall be prepared to commence and proceed with the construction of the canal in question.

ARTICLE VIII.

The Governments of the United States and Great Britain having not only desired, in entering into this convention, to accomplish a particular object, but also to establish a general principle, they hereby agree to extend their protection, by treaty stipulations, to any other practicable communications, whether by canal or railway, across the isthmus which connects North and South America, and especially to the interoceanic communications, should the same prove to be practicable, whether by canal or railway, which are now proposed to be established by the way of Tehuantepec or Panama. In granting, however, their joint protection to any such canals or railways as are by this article specified, it is always understood by the United States and Great Britain that the parties constructing or owning the same shall impose no other charges or conditions of traffic thereupon, than the aforesaid governments shall approve of, as just and equitable; and, that the same canals, or railways, being open to the citizens and subjects of the United States and Great Britain on equal terms, shall, also, be open on like terms to the citizens and subjects of every other State which is willing to grant thereto, such protection as the United States and Great Britain engage to afford.

ARTICLE IX.

The ratifications of this Convention shall be exchanged at Washington, within six months from this day, or sooner, if possible.

In faith whereof, we, the respective Plenipotentiaries, have signed this Convention, and have hereunto affixed our seals.

Done, at Washington, the nineteenth day of April, Anno Domini, one thousand eight hundred and fifty.

JOHN M. CLAYTON
HENRY LYTTON BULWER.

GREAT BRITAIN

FEBRUARY 5, 1900

FIRST HAY-PAUNCEFOTE TREATY

This treaty was ratified by the Senate, with amendments, but was rejected by Great Britain.

The first reference to the exemption of American coastwise shipping from canal tolls appears in the discussion of this treaty

by the Senate. Senator Thomas R. Bard, of California, moved to strike out Article III and substitute the following:

"Art. III. The United States reserves the right in the regulation and management of the canal to discriminate in respect of the charges of traffic in favor of vessels of its own citizens engaged in the coastwise trade."

This amendment was rejected by a vote of forty-three to twenty-seven. Senator Bard, referring later to the proposed amendment, said:

"When my amendment was under consideration it was generally conceded by Senators that even without that specific provision the rules of the treaty would not prevent our Government from treating the canal as part of our coast line, and consequently could not be construed as a restriction of our interstate commerce, forbidding the discrimination in charges for tolls in favor of our coastwise trade, and this conviction contributed to the defeat of the amendment."

In the appended copy of the treaty as ratified by the Senate, the Senate amendments are printed in italics, and the portions stricken out by the Senate are printed in brackets.

The United States of America and Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, Empress of India, being desirous to facilitate the construction of a ship canal to connect the Atlantic and Pacific Oceans, and to that end to remove any objection which may arise out of the Convention of April 19, 1850, commonly called the Clayton-Bulwer Treaty, to the construction of such canal under the auspices of the United States, without impairing the "general principle" of neutralization established in Article VIII of that Convention, have for that purpose appointed as their Plenipotentiaries: The President of the United States, John Hay, Secretary of State of the United States of America, and Her Majesty the Queen of Great Britain and Ireland, Empress of India, The Right Honble. Lord Pauncefote, G.C.B., G.C.M.G., Her Majesty's Ambassador Extraordinary and Plenipotentiary to the United States; who, having communicated to each other their full powers, which were found to be in due and proper form, have agreed upon the following articles

ARTICLE I.

It is agreed that the canal may be constructed under the auspices of the Government of the United States, either directly at its own cost or by gift or loan of money to individuals or corporations or through subscription to or purchase of stock or shares, and that, subject to the provisions of the present Convention, the said Government shall have and enjoy all the rights incident to such con-

struction, as well as the exclusive right of providing for the regulation and management of the canal.

ARTICLE II.

The High Contracting Parties, desiring to preserve and maintain the "general principle" of neutralization established in Article VIII of the Clayton-Bulwer Convention, *which Convention is hereby superseded*, adopt, as the basis of such neutralization, the following rules, substantially as embodied in the Convention between Great Britain and certain other Powers, signed at Constantinople October 29, 1888, for the Free Navigation of the Suez Maritime Canal, that is to say:

1. The canal shall be free and open, in time of war as in time of peace, to the vessels of commerce and of war of all nations, on terms of entire equality, so that there shall be no discrimination against any nation or its citizens or subjects in respect of the conditions or charges of traffic, or otherwise.

2. The canal shall never be blockaded, nor shall any right of war be exercised nor any act of hostility be committed within it.

3. Vessels of war of a belligerent shall not revictual nor take any stores in the canal except so far as may be strictly necessary; and the transit of such vessels through the canal shall be effected with the least possible delay, in accordance with the regulations in force, and with only such intermission as may result from the necessities of the service.

Prizes shall be in all respects subject to the same rules as vessels of war of the belligerents.

4. No belligerent shall embark or disembark troops, munitions of war or warlike materials in the canal except in case of accidental hindrance of the transit, and in such case the transit shall be resumed with all possible despatch.

5. The provisions of this article shall apply to waters adjacent to the canal, within three marine miles of either end. Vessels of war of a belligerent shall not remain in such waters longer than twenty-four hours at any one time except in case of distress, and in such case shall depart as soon as possible; but a vessel of war of one belligerent shall not depart within twenty-four hours from the departure of a vessel of war of the other belligerent.

It is agreed, however, that none of the immediate foregoing conditions and stipulations in sections numbered one, two, three, four, and five of this article shall apply to measures which the United States may find it necessary to take for securing by its own forces the defense of the United States and the maintenance of public order.

6. The plant, establishments, buildings, and all works necessary to the construction, maintenance and operation of the canal shall be deemed to be part thereof, for the purposes of this convention, and in time of war as in time of peace shall enjoy complete immunity from attack or injury by belligerents and from acts calculated to impair their usefulness as part of the canal.

7. No fortifications shall be erected commanding the canal or the waters adjacent. The United States, however, shall be at liberty to maintain such military police along the canal as may be necessary to protect it against lawlessness and disorder.

[ARTICLE III.]

[The High Contracting Parties will, immediately upon the exchange of the ratifications of this Convention, bring it to the notice of the other Powers and invite them to adhere to it.]

ARTICLE IV.

The present Convention shall be ratified by the President of the United States, by and with the advice and consent of the Senate thereof, and by

Her Britannic Majesty; and the ratifications shall be exchanged at Washington or at London within six months from the date hereof, or earlier if possible.

In faith whereof the respective Plenipotentiaries have signed this Convention and thereunto affixed their seals.

Done in duplicate at Washington the fifth day of February in the year of Our Lord one thousand nine hundred.

JOHN HAY.
PAUNCEFOTE.

GREAT BRITAIN

NOVEMBER 18, 1901

HAY-PAUNCEFOTE TREATY

Ratifications of this treaty were exchanged on Feb. 21, 1902, and it was proclaimed on Feb. 22, 1902.

The United States of America and His Majesty Edward the Seventh, of the United Kingdom of Great Britain and Ireland, and of the British Dominions beyond the Seas, King, and Emperor of India being desirous to facilitate the construction of a ship canal to connect the Atlantic and Pacific Oceans, by whatever route may be considered expedient, and to that end to remove any objection which may arise out of the Convention of the 19th April, 1850, commonly called the Clayton-Bulwer Treaty, to the construction of such canal under the auspices of the Government of the United States, without impairing the "general principle" of neutralization established in Article VIII of that Convention, have for that purpose appointed as their Plenipotentiaries: The President of the United States, John Hay, Secretary of State of the United States of America; and His Majesty Edward the Seventh, of the United Kingdom of Great Britain and Ireland, and of the British Dominions beyond the Seas, King, and Emperor of India, the Right Honourable Lord Pauncefote, G.C.B., G.C.M.G., His Majesty's Ambassador Extraordinary and Plenipotentiary to the United States; who, having communicated to each other their full powers which were found to be in due and proper form, have agreed upon the following Articles:

ARTICLE I.

The High Contracting Parties agree that the present Treaty shall supersede the afore-mentioned Convention of the 19th April, 1850.

ARTICLE II.

It is agreed that the canal may be constructed under the auspices of the Government of the United States, either directly at its own cost, or by gift or loan of money to individuals or corporations, or through subscription to or purchase of stock or shares, and that, subject to the provisions of the present Treaty, the said Government shall have and enjoy all the rights incident to such construction, as well as the exclusive right of providing for the regulation and management of the canal.

ARTICLE III.

The United States adopts, as the basis of the neutralization of such ship canal, the following Rules, substantially as embodied in the Convention of Constantinople, signed the 28th October, 1888, for the free navigation of the Suez Canal, that is to say:

1. The canal shall be free and open to the vessels of commerce and of war of all nations observing these Rules, on terms of entire equality, so that there shall be no discrimination against any such nation, or its citizens or subjects, in respect of the conditions or charges of traffic, or otherwise. Such conditions and charges of traffic shall be just and equitable.

2. The canal shall never be blockaded, nor shall any right of war be exercised nor any act of hostility be committed within it. The United States, however, shall be at liberty to maintain such military police along the canal as may be necessary to protect it against lawlessness and disorder.

3. Vessels of war of a belligerent shall not revictual nor take any stores in the canal except so far as may be strictly necessary; and the transit of such vessels through the canal shall be effected with the least possible delay in accordance with the Regulations in force, with and only such intermission as may result from the necessities of the service.

Prizes shall be in all respects subject to the same Rules as vessels of war of the belligerents.

4. No belligerent shall embark or disembark troops, munitions of war, or warlike materials in the canal, except in case of accidental hindrance of the transit, and in such case the transit shall be resumed with all possible dispatch.

5. The provisions of this Article shall apply to waters adjacent to the canal, within 3 marine miles of either end. Vessels of war of a belligerent shall not remain in such waters longer than twenty-four hours at any one time, except in case of distress, and in such case shall depart as soon as possible; but a vessel of war of one belligerent shall not depart within twenty-four hours from the departure of a vessel of war of the other belligerent.

6. The plant, establishments, buildings, and all works necessary to the construction, maintenance, and operation of the canal shall be deemed to be part thereof, for the purposes of this Treaty, and

in time of war, as in time of peace, shall enjoy complete immunity from attack or injury by belligerents, and from acts calculated to impair their usefulness as part of the canal.

ARTICLE IV.

It is agreed that no change of territorial sovereignty or of the international relations of the country or countries traversed by the before-mentioned canal shall affect the general principle of neutralization or the obligation of the High Contracting Parties under the present Treaty.

ARTICLE V.

The present Treaty shall be ratified by the Presi-

dent of the United States, by and with the advice and consent of the Senate thereof, and by His Britannic Majesty; and the ratifications shall be exchanged at Washington or at London at the earliest possible time within six months from the date hereof.

In faith whereof the respective Plenipotentiaries have signed this Treaty and thereunto affixed their seals.

Done in duplicate at Washington, the 18th day of November, in the year of Our Lord one thousand nine hundred and one.

JOHN HAY.
PAUNCEFOTE.

HAY-CONCHA AGREEMENT

MEMORANDUM OF POINTS TO BE EMBODIED IN A TREATY BETWEEN COLOMBIA AND THE UNITED STATES

Early in 1902, after the House of Representatives had passed the bill providing for a Nicaragua canal, and the canal commission had reported in favor of accepting the offer of the New Panama Canal Company to sell its properties for \$40,000,000, assurance was demanded that Colombia would consent to the transfer of the French company's concession and grant to the United States the right of way for a canal. Mr. José Vicente Concha, formerly Colombian Secretary of War, was sent to the United States as minister to negotiate a treaty which would bring about the construction of the canal at Panama. After repeated conferences with William Nelson Cromwell, general counsel in America for the New Panama Canal Company, Mr. Concha submitted a draft of a treaty to Secretary Hay, in the following letter:

LEGACION DE COLOMBIA,
Washington, D. C., March 31, 1902.

HON. JOHN HAY,

Secretary of State of the United States:

I have the honor to hand to your excellency the proposal of the Republic of Colombia for a concessionary convention or treaty between the Republic of Colombia and the United States of America, respecting the completion, maintenance, operation, control, and protection of the inter-oceanic canal over the Isthmus of Panama

I soon shall hand you a letter of exposition, and also have requested Mr. William Nelson Cromwell, general counsel of the New Panama Canal Company, to present you a statement which I have approved.

Please accept these additional communications in connection with the proposed treaty.

I avail myself of this opportunity to renew to your excellency the assurance of my high consideration.

JOSÉ VICENTE CONCHA.

Mr. Concha's letter of exposition and Mr. Cromwell's letter were sent to Secretary Hay on the same date, March 31, and on April 18, after a conference between Mr. Hay and Mr. Cromwell, certain changes were made in the proposed treaty and agreed upon by both sides. The revised draft was then sent to Secretary Hay by Mr. Concha with the assurance that he was ready to sign the treaty in behalf of Colombia.

The draft of the treaty is summarized as follows:

Colombia authorizes the New Panama Canal Company to sell its concessions and properties, including the Panama Railroad, to the United States.

The United States is given the exclusive right to construct the Panama Canal across the territory of Colombia, and for that purpose Colombia grants the use of a zone ten kilometers in width, exclusive of the cities of Panama and Colon, for a term of 100 years, renewable for like periods at the option of the United States. The stipulations of Article 35 of the treaty of 1846 between the United States and New Granada shall continue and apply in full force.

The rights granted to the United States shall not affect the sovereignty of Colombia. The United States recognizes this sovereignty.

Colombia authorizes the United States to construct a port at each terminus of the canal. The United States will take charge of sanitary questions and provide hospitals, water systems, etc.

Colombia agrees that it will not cede or lease to any other foreign government any islands or harbors adjacent to Panama.

Colombia grants the free use of the Chagres River and other waterways, declares the ports free, exempts vessels of the United States from taxation, exempts the canal and railroad from taxation, and authorizes the construction of telegraph and telephone lines; grants free immigration of canal laborers, and the free importation of canal machinery and equipment of all kinds; authorizes the expropriation of necessary lands; grants the free use of ports for places of refuge; and authorizes the United States to establish and enforce regulations regarding the preservation of order and the operation of the canal.

It is agreed that the canal shall be neutral in perpetuity, and shall be opened upon equal terms to the vessels of all nations at uniform tonnage and other rates, in conformity with the Hay-Pauncefote treaty.

Colombia agrees to cancel or modify any treaties with other nations which may be incompatible with the present convention. It also renounces participation in the future earnings of the canal under the concessions to the French company. It agrees to provide armed forces for the protection of the canal, and to permit the United States to use its forces if necessary.

The United States agrees to begin construction within two years and complete the canal in twelve years; and in case of unforeseen obstacles Colombia agrees that the term of completion may be prolonged for twelve years more.

In consideration of the right to use the Canal zone, and the proprietary right over the Panama Railroad, and for the annuity of \$250,000 which Colombia ceases to receive from the railroad, the United States agrees to pay Colombia \$7,000,000 in gold, and an annuity, to begin fourteen years after ratification of the treaty, the amount of the annuity to be agreed upon. In case they cannot agree, each shall appoint two commissioners, and the president of the International Peace Tribunal at The Hague shall constitute the fifth; and the determination of said commission shall be binding as to the amount of the annuity.

If after five years from the date of the treaty the work shall not have been commenced, or if after the expiration of twelve years and the extension of twelve years thereafter the canal shall not have been completed, all the concessions granted and the machinery and works shall be forfeited to Colombia, together with any money paid.

The treaty shall be ratified within eight months from this date.

This draft of the treaty summarized above was accepted by the United States in the following letter:

DEPARTMENT OF STATE,
Washington, April 21, 1902

SIR:—I have the honor to acknowledge receipt at your hands of a communication dated the 31st of March, 1902, and another of the 18th of April, inclosing a proposal of the Republic of Colombia for a concessionary convention or treaty between the Republic of Colombia and the United States of America respecting the completion, maintenance, operation, control, and protection of an inter-oceanic canal over the Isthmus of Panama.

I am directed by the President to inform you that I shall be ready to sign with you the proposed convention as soon as—

First. The Congress of the United States shall have authorized the President to enter into such an arrangement; and

Second. As soon as the law officers of this Government shall have decided upon the question of the title which the New Panama Canal Company is able to give of all the properties and rights claimed by it and pertaining to a canal across the Isthmus and covered by the pending proposal.

Accept, sir, the renewed assurance of my highest consideration.

JOHN HAY.

Señor Don JOSÉ VICENTE CONCHA.

Minister Concha replied, under date of April 23, 1902, acknowledging receipt of the notification that the United States was ready under certain contingencies to sign the treaty. He added: "When the occasion to sign the above-mentioned treaty shall arise I will present, according to usage, the full powers authorizing me to do so."

It was upon this agreement between Secretary Hay and Minister Concha that the United States proceeded to enter into the Hay-Herran treaty, and the United States insisted that Colombia should ratify the treaty in compliance with its promise made through Mr. Concha.

COLOMBIA

JANUARY 22, 1903

HAY-HERRAN TREATY

This treaty was ratified by the United States Senate March 17, 1903, but was rejected by the Senate of Colombia. Fol-

lowing the rejection of the treaty occurred the revolution at Panama and the creation of the Panama Republic.

The United States of America and the Republic of Colombia, being desirous to assure the construction of a ship canal to connect the Atlantic and Pacific Oceans and the Congress of the United States of America having passed an Act approved June 28, 1902, in furtherance of that object, a copy of which is hereunto annexed, the High Contracting Parties have resolved, for that purpose, to conclude a Convention and have accordingly appointed as their Plenipotentiaries: The President of the United States of America, John Hay, Secretary of State, and the President of the Republic of Colombia, Thomas Herran, Chargé d'Affaires, thereunto specially empowered by said government who, after communicating to each other their respective full powers, found in good and due form, have agreed upon and concluded the following Articles:

ARTICLE I.

The Government of Colombia authorizes the New Panama Canal Company to sell and transfer to the United States its rights, privileges, properties, and concessions, as well as the Panama Railroad and all the shares or part of the shares of that company; but the public lands situated outside of the zone hereinafter specified, now corresponding to the concessions to both said enterprises shall revert to the Republic of Colombia, except any property now owned by or in the possession of the said companies within Panama or Colon, or the ports and terminals thereof.

But it is understood that Colombia reserves all its rights to the special shares in the capital of the New Panama Canal Company to which reference is made in Article IV of the contract of December 10, 1890, which shares shall be paid their full nominal value at least; but as such right of Colombia exists solely in its character of stockholder in said Company, no obligation under this provision is imposed upon or assumed by the United States.

The Railroad Company (and the United States as owner of the enterprise) shall be free from the obligations imposed by the railroad concession, excepting as to the payment at maturity by the Railroad Company of the outstanding bonds issued by said Railroad Company.

ARTICLE II.

The United States shall have the exclusive right for the term of one hundred years, renewable at the sole and absolute option of the United States, for periods of similar duration so long as the United States may desire, to excavate, construct, maintain, operate, control, and protect the Maritime Canal with or without locks from the Atlantic to the Pacific Ocean, to and across the territory of Colombia, such canal to be of sufficient depth and capacity for vessels of the largest tonnage and greatest draft now engaged in commerce, and such as may be reasonably anticipated, and also the same rights for the construction, maintenance, operation, control, and protection of the Panama Railroad and of railway, telegraph and telephone lines, canals, dikes, dams, and reservoirs, and such other auxiliary works as may be necessary and convenient for the construction, maintenance, protection, and operation of the canal and railroads.

ARTICLE III.

To enable the United States to exercise the rights and privileges granted by this Treaty the Republic of Colombia grants to that Government the use and control for the term of one hundred years, renewable at the sole and absolute option of the United States, for periods of similar duration so long as the United States may desire, of a zone of territory along the route of the canal to be constructed five kilometers in width on either side thereof measured from its center line including therein the necessary auxiliary canals not exceeding in any case fifteen miles from the main canal and other works, together with ten fathoms of water in the Bay of Limon in extension of the canal, and at least three marine miles from mean low water mark from each terminus of the canal into the Caribbean Sea and the Pacific Ocean respectively. So far as necessary for the construction, maintenance and operation of the canal, the United States shall have the use and occupation of the group of small islands in the Bay of Panama named Perico, Naos, Culebra and Flamenco, but the same shall not be construed as being within the zone herein defined nor governed by the special provisions applicable to the same.

This grant shall in no manner invalidate the titles or rights of private land owners in the said zone of territory, nor shall it interfere with the rights of way over the public roads of the Department; provided, however, that nothing herein contained shall operate to diminish, impair or restrict the rights elsewhere herein granted to the United States.

This grant shall not include the cities of Panama and Colon, except so far as lands and other property therein are now owned by or in possession of the said Canal Company or the said Railroad Company; but all the stipulations contained in Article 35 of the Treaty of 1846-48 between the contracting parties shall continue and apply in full force to the cities of Panama and Colon and to the accessory community lands and other property within the said zone, and the territory thereon shall be neutral territory, and the United States shall continue to guarantee the neutrality thereof and the sovereignty of Colombia thereover, in conformity with the above-mentioned Article 35 of said Treaty.

In furtherance of this last provision there shall be created a Joint Commission by the Governments of Colombia and the United States that shall establish and enforce sanitary and police regulations.

ARTICLE IV.

The rights and privileges granted to the United States by the terms of this Convention shall not affect the sovereignty of the Republic of Colombia over the territory within whose boundaries such rights and privileges are to be exercised.

The United States freely acknowledges and recognizes this sovereignty and disavows any intention to impair it in any way whatever or to increase its territory at the expense of Colombia or of any of the sister republics in Central or South America, but on the contrary, it desires to strengthen the power of the republics on this continent, and to promote, develop and maintain their prosperity and independence.

ARTICLE V.

The Republic of Colombia authorizes the United States to construct and maintain at each entrance and terminus of the proposed canal a port for vessels using the same, with suitable light houses and other aids to navigation, and the United States is authorized to use and occupy within the limits of the zone fixed by this convention, such parts of the coast line and of the lands and islands adjacent thereto as are necessary for this purpose, including the construction and maintenance of breakwaters, dikes, jetties, embankments, coaling stations, docks and other appropriate works, and the United States undertakes the construction and maintenance of such works and will bear all expense thereof. The ports when established are declared free, and their demarcations shall be clearly and definitely defined.

To give effect to this Article, the United States will give special attention and care to the maintenance of works for drainage, sanitary and healthful purposes along the line of the canal, and its dependencies, in order to prevent the invasion of epidemics or of securing their prompt suppression should they appear. With this end in view the United States will organize hospitals along the line of the canal, and will suitably supply or cause to be supplied the towns of Panama and Colon with the necessary aqueducts and drainage works, in order to prevent their becoming centers of infection on account of their proximity to the canal.

The Government of Colombia will secure for the United States or its nominees the lands and rights that may be required in the towns of Panama and Colon to effect the improvements above referred to, and the Government of the United States or its nominees shall be authorized to impose and collect equitable water rates, during fifty years for the service rendered; but on the expiration of said term the use of the water shall be free for the inhabitants of Panama and Colon, except to the extent that may be necessary for the operation and maintenance of said water system, including reservoirs, aqueducts, hydrants, supply service, drainage and other works.

ARTICLE VI.

The Republic of Colombia agrees that it will not cede or lease to any foreign Government any of its islands or harbors within or adjacent to the Bay of Panama, nor on the Atlantic Coast of Colombia, between the Atrato River and the western boundary of the Department of Panama, for the purpose of establishing fortifications, naval or coaling stations, military posts, docks or other works that might interfere with the construction, maintenance, operation, protection, safety, and free use of the canal and auxiliary works. In order to enable Colombia to comply with this stipulation, the Government of the United States agrees to give Colombia the material support that may be required in order to prevent the occupation of said islands and ports, guaranteeing there the sovereignty, independence and integrity of Colombia.

ARTICLE VII.

The Republic of Colombia includes in the foregoing grant the right without obstacle, cost, or

impediment, to such control, consumption and general utilization in any manner found necessary by the United States to the exercise by it of the grants to, and rights conferred upon it by this Treaty, the waters of the Chagres River and other streams, lakes and lagoons, of all non-navigable waters, natural and artificial, and also to navigate all rivers, streams, lakes and other navigable waterways, within the jurisdiction and under the dominion of the Republic of Colombia, in the Department of Panama, within or without said zone, as may be necessary or desirable for the construction, maintenance and operation of the canal and its auxiliary canals and other works, and without tolls or charges of any kind; and to raise and lower the levels of the waters, and to deflect them, and to impound any such waters and to overflow any lands necessary for the due exercise of such grants and rights to the United States; and to rectify, construct and improve the navigation of any such rivers, streams, lakes and lagoons at the sole cost of the United States; but any such water ways so made by the United States may be used by citizens of Colombia free of tolls or other charges. And the United States shall have the right to use without cost, any water, stone, clay, earth or other minerals belonging to Colombia on the public domain that may be needed by it.

All damages caused to private land owners by inundation or by the deviation of water courses, or in other ways, arising out of the construction or operation of the canal, shall in each case be appraised and settled by a joint commission appointed by the Governments of the United States and Colombia, but the cost of the indemnities so agreed upon shall be borne solely by the United States.

ARTICLE VIII.

The Government of Colombia declares free for all time the ports at either entrance of the Canal, including Panama and Colon and the waters thereof in such manner that there shall not be collected by the Government of Colombia custom house tolls, tonnage, anchorage, light-house, wharf, pilot, or quarantine dues, nor any other charges or taxes of any kind shall be levied or imposed by the Government of Colombia upon any vessel using or passing through the canal or belonging to or employed by the United States, directly or indirectly, in connection with the construction, maintenance and operation of the main work or its auxiliaries, or upon the cargo, officers, crew, or passengers of any such vessels; it being the intent of this Convention that all vessels and their cargoes, crews, and passengers, shall be permitted to use and pass through the canal and the ports leading thereto, subject to no other demands or impositions than such tolls and charges as may be imposed by the United States for the use of the canal and other works. It being understood that such tolls and charges shall be governed by the provisions of Article XVI.

The ports leading to the canal, including Panama and Colon, also shall be free to the commerce of the world, and no duties or taxes shall be imposed, except upon merchandise destined to be introduced for the consumption of the rest of the Re-

and of all cases arising in admiralty, according to such laws and procedure as shall be hereafter agreed upon and declared by the two governments.

Such joint judicial tribunal shall have exclusive jurisdiction in said zone of all controversies between citizens of the United States and citizens of Colombia, and between citizens of nations other than Colombia or the United States; and also of all crimes, felonies and misdemeanors committed within said zone, and of all questions of admiralty arising therein.

IV. The two Governments hereafter, and from time to time as occasion arises, shall agree upon and establish the laws and procedures which shall govern such joint judicial tribunal and which shall be applicable to the persons and cases over which such tribunal shall have jurisdiction, and also shall likewise create the requisite officers and employees of such court and establish their powers and duties; and further shall make adequate provision by like agreement for the pursuit, capture, imprisonment, detention, and delivery within said zone of persons charged with the commitment of crimes, felonies or misdemeanors without said zone; and for the pursuit, capture, imprisonment, detention and delivery without said zone of persons charged with the commitment of crimes, felonies and misdemeanors within said zone.

ARTICLE XIV.

The works of the canal, the railways and their auxiliaries are declared of public utility, and in consequence all areas of land and water necessary for the construction, maintenance, and operation of the canal and the other specified works may be expropriated in conformity with the laws of Colombia, except that the indemnity shall be conclusively determined without appeal, by a joint commission appointed by the Governments of Colombia and the United States.

The indemnities awarded by the Commission for such expropriation shall be borne by the United States, but the appraisal of said lands and the assessment of damages shall be based upon their value before the commencement of the work upon the canal.

ARTICLE XV.

The Republic of Colombia grants to the United States the use of all the ports of the Republic open to commerce as places of refuge for any vessels employed in the canal enterprise, and for all vessels in distress having the right to pass through the canal and wishing to anchor in said ports. Such vessels shall be exempt from anchorage and tonnage dues on the part of Colombia.

ARTICLE XVI.

The canal, when constructed, and the entrance thereto shall be neutral in perpetuity, and shall be opened upon the terms provided for by Section I of Article three of, and in conformity with all the stipulations of, the treaty entered into by the Governments of the United States and Great Britain on November 18, 1901.

ARTICLE XVII.

The Government of Colombia shall have the right to transport over the canal its vessels, troops, and munitions of war at all times without paying charges of any kind. This exemption is to be extended to the auxiliary railway for the transportation of persons in the service of the Republic of Colombia or of the Department of Panama, or of the police force charged with the preservation of public order outside of said zone, as well as to their baggage, munitions of war and supplies.

ARTICLE XVIII.

The United States shall have full power and authority to establish and enforce regulations for the use of the canal, railways, and the entering ports and auxiliary works, and to fix rates of tolls and charges thereof, subject to the limitations stated in Article XVI.

ARTICLE XIX.

The rights and privileges granted to the United States by this convention shall not affect the sovereignty of the Republic of Colombia over the real estate that may be acquired by the United States by reason of the transfer of the rights of the New Panama Canal Company and the Panama Railroad Company lying outside of the said canal zone.

ARTICLE XX.

If by virtue of any existing treaty between the Republic of Colombia and any third power, there may be any privilege or concession relative to an interoceanic means of communication which especially favors such third power, and which in any of its terms may be incompatible with the terms of the present convention, the Republic of Colombia agrees to cancel or modify such treaty in due form, for which purpose it shall give to the said third power the requisite notification within the term of four months from the date of the present convention, and in case the existing treaty contains no clause permitting its modification or annulment, the Republic of Colombia agrees to procure its modification or annulment in such form that there shall not exist any conflict with the stipulations of the present convention.

ARTICLE XXI.

The rights and privileges granted by the Republic of Colombia to the United States in the preceding Articles are understood to be free of all anterior concessions or privileges to other Governments, corporations, syndicates or individuals, and consequently, if there should arise any claims on account of the present concessions and privileges or otherwise the claimants shall resort to the Government of Colombia and not to the United States for any indemnity or compromise which may be required.

ARTICLE XXII.

The Republic of Colombia renounces and grants to the United States the participation to which it might be entitled in the future earnings of the canal under Article XV of the concessionary contract with Lucien N. B. Wyse now owned by the New

Panama Canal Company and any and all other rights or claims of a pecuniary nature arising under or relating to said concession, or arising under or relating to the concessions to the Panama Railroad Company or any extension or modification thereof; and it likewise renounces, confirms and grants to the United States, now and hereafter, all the rights and property reserved in the said concessions which otherwise would belong to Colombia at or before the expiration of the terms of ninety-nine years of the concessions granted to or held by the above mentioned party and companies, and all right, title and interest which it now has or may hereafter have, in and to the lands, canal, works, property and rights held by the said companies under said concessions or otherwise, and acquired or to be acquired by the United States from or through the New Panama Canal Company, including any property and rights which might or may in the future either by lapse of time, forfeiture or otherwise, revert to the Republic of Colombia under any contracts of concessions, with said Wyse, the Universal Panama Canal Company, the Panama Railroad Company and the New Panama Canal Company.

The aforesaid rights and property shall be and are free and released from any present or reversionary interest in or claims of Colombia and the title of the United States thereto upon consummation of the contemplated purchase by the United States from the New Panama Canal Company, shall be absolute, so far as concerns the Republic of Colombia, excepting always the rights of Colombia specifically secured under this treaty.

ARTICLE XXIII.

If it should become necessary at any time to employ armed forces for the safety or protection of the canal, or of the ships that make use of the same, or the railways and other works, the Republic of Colombia agrees to provide the forces necessary for such purpose, according to the circumstances of the case, but if the Government of Colombia cannot effectively comply with this obligation, then, with the consent of or at the request of Colombia, or of her Minister at Washington, or of the local authorities, civil or military, the United States shall employ such force as may be necessary for that sole purpose; and as soon as the necessity shall have ceased will withdraw the forces so employed. Under exceptional circumstances, however, on account of unforeseen or imminent danger to said canal, railways and other works, or to the lives and property of the persons employed upon the canal, railways, and other works, the Government of the United States is authorized to act in the interest of their protection, without the necessity of obtaining the consent beforehand of the Government of Colombia; and it shall give immediate advice of the measures adopted for the purpose stated; and as soon as sufficient Colombian forces shall arrive to attend to the indicated purpose, those of the United States shall retire.

ARTICLE XXIV.

The Government of the United States agrees to complete the construction of the preliminary works necessary, together with all the auxiliary works,

in the shortest time possible; and within two years from the date of the exchange of ratification of this convention the main works of the canal proper shall be commenced, and it shall be opened to the traffic between the two oceans within twelve years after such period of two years. In case, however, that any difficulties or obstacles should arise in the construction of the canal which are at present impossible to foresee, in consideration of the good faith with which the Government of the United States shall have proceeded, and the large amount of money expended so far on the works and the nature of the difficulties which may have arisen, the Government of Colombia will prolong the terms stipulated in this Article up to twelve years more for the completion of the work of the canal.

But in case the United States should, at any time, determine to make such canal practically a sea level canal, then such period shall be extended for ten years further.

ARTICLE XXV.

As the price or compensation for the right to use the zone granted in this convention by Colombia to the United States for the construction of a canal, together with the proprietary right over the Panama Railroad, and for the annuity of two hundred and fifty thousand dollars gold, which Colombia ceases to receive from the said railroad, as well as in compensation for other rights, privileges and exemptions granted to the United States, and in consideration of the increase in the administrative expenses of the Department of Panama consequent upon the construction of the said canal, the Government of the United States binds itself to pay Colombia the sum of ten million dollars in gold coin of the United States on the exchange of the ratification of this convention after its approval according to the laws of the respective countries, and also an annual payment during the life of this convention of two hundred and fifty thousand dollars in like gold coin, beginning nine years after the date aforesaid.

The provisions of this Article shall be in addition to all other benefits assured to Colombia under this convention.

But no delay nor difference of opinion under this Article shall affect nor interrupt the full operation and effect of this convention in all other respects:

ARTICLE XXVI.

No change either in the Government or in the laws and treaties of Colombia, shall, without the consent of the United States, affect any right of the United States under the present convention, or under any treaty stipulation between the two countries (that now exist or may hereafter exist) touching the subject-matter of this convention.

If Colombia shall hereafter enter as a constituent into any other Government or into any union or confederation of States so as to merge her sovereignty or independence in such Government, union, or confederation, the rights of the United States under this convention shall not be in any respect lessened or impaired.