

JOHN E. ALLEN, INC.

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[u-bit #19200278]

L-255

- <documentary about Postal Telegraph Cable Operations> (N) in PA
- 20:00:19 1) *The Pulse Of The World* (early 1920s)
“Postal Telegraph Commercial Cables - Presenting Various Chapters In The Story Of World Communications - Courtesy Of The Mackay System”
[A Pathescope Production]
- 20:00:39 “Episode 1. - Installation, Operation And Maintenance Of The Commercial Cable Company’s System.”
- 20:00:46 “Foreword - The Great Events Which Make Up The History Of The World Are Interwoven With The Struggle Of Mankind To Break Down The Barriers Of Time And Space.”
- 20:00:56 “The Victories Won In The Great Wars Of The Past Were Made Largely With The Aid Of Means Of Communication, Primitive Though They Were.”
- 20:01:11 “Some Of The Most Dramatic Episodes In The Successful Struggle Of The United States Of America For Independence Were Signalized By Heroic Efforts To Overcome Time And Space.”
- 20:01:30 “To The Genius Of The Last Century Belongs The Credit Of Harnessing The Genie Of Electricity To This Most Important Duty In The Conduct Of Human Affairs.”
- 20:01:48 “The Fostering Of International Amity And The Encouragement Of World Trade Have Been Greatly Assisted By The Operation Of The Various Companies Which Operate Under The Banner Of ‘The Mackay System’”
- 20:02:04 “The Home Of The Mackay System, Postal Building, 253 Broadway, New York”
- still of street corner with three tall buildings, building
- 20:02:23 “Clarence H. Mackay, President Of The Mackay System.”
- Mackay sitting at desk writing
- 20:02:40 “The Commercial Cable Company Was Founded By John W. Mackay In 1884” - portrait in frame
- 20:02:53 “Six Transatlantic Cables Have Been Laid By The Commercial Cable Company Since Its Incorporation In 1884.” - map of North Atlantic Ocean animated to show cable routes
- 20:03:29 “The Pacific Cable Was Started In 1902” - map of Pacific Ocean showing route from San Francisco to Honolulu, Hawaii
- 20:03:39 “Honolulu Offices” - very large building under construction, map showing route from Honolulu to Midway
- 20:03:51 “Midway, The Mid Pacific Station, Formerly A Barren Island, Is About A Mile And A Half Long And Three Quarters Of A Mile Wide - Now Made Inhabitable By The Commercial Pacific Cable Company.” - still of four buildings and a U.S. flag in courtyard, map continuing route to Guam

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- 20:04:14 “Another Pacific Station On The Island Of Guam” - tropical style building, map continuing route to Manila
- 20:04:27 “Commercial Pacific Cable Office, El Hogar, Philipino, Manila.” - still of four story European style building with antennas on top, map showing routes to Shanghai, Bonin Island and Tokio
- 20:04:43 “Commercial Pacific Cable Office, Shanghai, China.” still of seven story building with antenna on top
- 20:04:50 “Messenger Boys In Shanghai” - still of row of young Chinese boys in uniform
- 20:05:01 “On Completion Of The Commercial Pacific Cable in 1903, President Roosevelt Sent A Cable Message From Oyster Bay Round The World Addressed To Clarence H. Mackay, President Of The Commercial Pacific Cable Company.” - Teddy Roosevelt walking through forest, reading papers on small bridge with trees in background, handing one piece of paper to his son, CU cablegram: “July 5, 1903 - Clarence H. Mackay, President, Pacific Cable Company, Oyster Bay, N.Y. - Congratulations And Success To The Pacific Cable Which The Genius Of Your Lamented Father And Your Own Enterprise Made Possible - Theodore Roosevelt” [also see T.O.1 00:26:03-00:26:39]
- 20:06:00 “This Is The Identical Machine Over Which The Message Was Sent” - CS key attached to a black box; rotating world globe animated with cable route, CS cablegram: “July 5, 1903 - President Roosevelt, Oyster Bay, N.Y. - I Thank You Deeply For Your Message And I Earnestly Hope That The Pacific Cable By Opening The Wide Horizon Of The Great East May Prove A Useful Factor To The Commerce Of The United States - Clarence H. Mackay”
- 20:07:24 “Commercial Cable Company Office In Paris, 24 Boulevard Des Capucines” - still of six messenger boys in front of building
- 20:07:37 “Interior Of The Paris Office” - interior of office with large world wall map of system
- 20:07:44 “Mackay House, The London Home Of Commercial Cable Company.” - still of doorway, still of front of building
- 20:08:08 “Another Cable Goes To Miami And Havana” - map with animated line from New York To Havana
- 20:08:21 “Havana Office, Calle Cuba 66” - still of entrance to building
- 20:08:32 “Through Connection To South America Is Obtained By An Affiliation With The All America Cable Company.” - map of North and South America showing cable routes
- 20:08:51 “Signals Are Received In Buenos Aires From New York In One Second.” - same map
- 20:09:02 “Operating Room At Far Rockaway. The Instruments Here Receive The Actual Signals From Distant Stations And Relay Them Directly To The Office In New York” - large room with several tables containing equipment, man operating key with tape running through machine, man’s arm on dial of interior of large box with resistance panels

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- 20:09:39 "The Movements Of The Spot Of Light Shown Here Are Signals Arriving From London" - ballistic galvanometer in midst of other instruments
- 20:09:53 "In A Trial Of Speed A Communication Was Sent From New York To London Over The Commercial Cables, And An Answer Received In FIVE SECONDS."
- 20:10:07 "Exterior Of Commercial Cable Building, 20 Broad Street, New York City" - HA early 1920s auto and truck parked in front of building with pedestrians walking along sidewalk
- 20:10:27 "General View Of Cable Operating Room" - men and women working at long desks
- 20:10:47 "Messages To Europe Over The New Atlantic Cable Are Being Sent On These Machines" - man operating a keyboard tape punch
- 20:10:59 "The Messages Are Punched Into The Tape And Sent To Europe By This Automatic Transmitter" - CS tape moving through tape reader
- 20:11:09 "Messages From London Are Coming In On This Tape And Being Transcribed By This Operator" - man typing on conventional typewriter while reading tape moving across above typewriter, and then woman doing same
- 20:11:27 "How The Cable Is Laid."
- 20:11:30 "The Cable Ship 'Faraday.'" - 2-mast and one stack steam ship at sea
- 20:11:41 "It Is A Well Known Fact That The Ocean Bed Is Composed Of Hills And Valleys The Same As On Land" - animated drawing of ship laying cable on hilly ocean floor
- 20:12:06 "The Component Parts Of A Submarine Cable." - animated drawing of various covering (copper tape, gutta percha, jute, steel wires, yarn and compound) onto solid copper wire
- 20:13:16 "Deep Sea Cable Is Only About One Inch In Diameter"
- 20:13:22 "The Cable Landing Place Is Carefully Charted And Buoyed"
- 20:13:27 - men in small boat
- 20:13:31 "The Cable Is Slowly Drawn To Shore, Being Floated In By Barrels." - men on deck feeding cable into water
- 20:13:39 "This Cable Has The Largest Copper Conductor That Has Ever Been Put In A Long-Distance Submarine Cable, Giving It A Greater Message-Carrying Capacity Than Any Other Cable Of Similar Length Manufactured." - view from boat of line of barrels in water
- 20:13:55 "The Working Speed Expected Is 600 Letters Per Minute Simultaneously In Each Direction, A Full Capacity Of 1200 Letters Per Minute, Which Is Far In Excess Of the Highest Speed Hitherto Maintained." - men laying out cable on beach with people in swimming suit watching
- 20:14:24 "When the Shore End Is Brought Into The Cable Station And Attached To Instruments, Tests Are Instituted." - exterior of large building
- 20:14:33 "The Cable, After Leaving The Ship, Sinks To The Bottom Of The Ocean And Buries Itself Slightly In The Ooze." - MCS cable going into water
- 20:14:54 "Tests Are Made Continuously During The Paying Out Of Cable." - men operating equipment
- 20:15:06 "A Splice Is Made, And The Tests Proving Satisfactory, The Ship

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- Proceeds To Sea.” - MLS front view steam ship at sea, IRIS IN
<some scratches>
- 20:15:24 “How Cables Are Repaired.”
- 20:15:26 “The Keeping Of Cable Lines In Repair Is A Most Important Work. In Order To Accomplish This Successfully, A Fleet Of Especially Built Cable Repair Ships Is Always Kept In Commission; The New Vessels ‘John W. Mackay’ and ‘Marie Louise Mackay’ On The Atlantic And The ‘Restorer’ On The Pacific.”
- 20:15:48 “These Scenes Were Taken On Board The Marie Louis Mackay While Executing An Actual Repair Job In The Atlantic.”
- 20:15:58 ““The Marie Louis Mackay”” - MLs steam ship at sea shot from another wavering ship
- 20:16:07 “A Fault Has Been Located In One Of The Atlantic Cables And Its Position Determined By An Instrument Known As The Wheatstone Bridge. By Means Of This Instrument, Breaks In Atlantic Cables Submerged In Two Miles Of Water In Mid Ocean Are Located From The 12th Floor Of The Commercial Cable Building At 20 Broad Street, N.Y.C.”
- 20:16:26 “The Information Is Received Over The Wireless-“ - man receiving message in radio room and then leaving room
- 20:16:38 “- And Delivered To The Captain” - man delivering message to captain on bridge of ship
- 20:16:53 “Arriving On The Ground Sights Are Taken To Determine The Ship's Position.” - sailors on deck of ship using sextants
- 20:17:03 “The Position Is Marked On A Chart.”- men standing at desk
- 20:17:11 “Soundings Are Taken, The Depth Being 1,833 Fathoms.” - men on ship with sounding winch
- 20:17:21 “A Mark Buoy Is Moored By A Stockless Type Anchor.” - buoy being released from side of ship
- 20:17:46 “On The Buoy Is A Staff From Which Is Hung A Lantern At Night. These Lanterns Are Electrically Controlled, Going On At 7:30 In The Evening And Off At 4:30 In The Morning Automatically.” - small boat rowing between ship and buoy
- 20:18:29 “The Grapnel Is Attached To A Length Of Heavy Chain Which Is In Turn Fastened To The Grapnel Rope.”
- 20:18:39 “Yarn Is Inserted In The Jaws Of The Grapnel To Protect The Cable From The Sharp Edges Of Its Prongs” - CS men working with the apparatus on deck
- 20:18:54 “The Grapnel Rope Is Made Of Manilla With Six Steel Wires Interwoven In Each Strand, Giving It A Breaking Strain Of 20 Tons.” - men working with ropes, animated drawing of rope being lowered to bottom of ocean, machinery on deck
- 20:19:42 “Using The Mark Buoy As A Guide, The Ship Now Takes A Position On One Side Of The Line Of The Cable And Lowers The Grapnel, Which Is Towed At Right Angles Across The Line Of The Cable.”
- animated drawing of rope being drawn across bottom of ocean
- 20:20:10 “When The Cable Is ‘Hooked’ The Strain Gradually Increases.”
- animated diagrams of rope hooking cable, cable metering pulley on deck

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- 20:20:26 “The Ship Is Then Stopped And The Grapnel Slowly Heaved In By Powerful Winches.” - steam engine for winch, animated drawing of cable being pulled up, winches on deck
- 20:20:57 “The Grapnel Appears At The Surface With The Bight Of The Cable On One Of Its Prongs.” - cable being raised from water
- 20:21:16 “Men Are Lowered Over The Bow And The Cable Is ‘Stoppered’ Each Side Of The Grapnel By Two Ropes.” - men being lowered from ship and hanging just above water while working on ropes, man being hauled up to deck of ship
- 20:22:17 “One End Is Hauled On Board And Opened Up.” - hauling of cable onto deck, men working on deck
- 20:22:39 “The Cable Is Connected To The Testing Room And If The Line Is Good, Communication Is Opened Up To The Shore Station” - testing room full of complex instruments, cable being fed through ship
- 20:23:06 “The Cable Is Coiled In Tanks.” - inside of cable tank, men handling cable
- 20:23:24 “The Testing Galvanometer Scale Showing The Spot Of Light, Whose Movements Indicate The Results Of The Tests.” - radio room with sailor working with a large instrument, galvanometer spot
- 20:23:42 “If The Spot Goes Off The Scale, Something Is Wrong, Which Necessitates Stopping the Ship, Locating The Fault And Repairing The Cable.”
- man working with instruments
- 20:23:57 “Tests Proving Satisfactory, The Two Ends Are Now Spliced Together, Restoring The Original Circuit”
- 20:24:04 “A Jointer At Work.”
- 20:24:07 “The Joining And Splicing Of A Submarine Cable Is A Most Particular Operation.” - MCS of cable being spliced
- 20:25:35 “Drawing Down The Gutta-Percha, Which Is Softened In The
-20:25:51 Flame Of A Spirit Lamp.” - MCS man working on splicing cable
- 20:25:57 “It Is Very Important That All Air Should Be Expelled Otherwise The Enormous Pressure At The Bottom Of The Ocean Would Force It Out, Causing A Fault” - CS man working on splice
<film break in this section>
- 20:26:30 “A New Sheet Of Gutta-Percha Is Applied.” - more splicing, CS hand rubbing back and forth on finished splice
- 20:27:06 “The Splicer Places A Serving Of Spun Yarn, Over Which Heavy Galvanized Iron Armor-Wires Are Laid.” - views of men working with heavy wire and tools
- 20:27:57 “The Cable Now Having Been Repaired, It Is Put Over the Bow And The Retaining Rope Severed With An Axe.” - men on deck chopping at and cutting rope, animated drawing of cable falling to bottom of ocean
- 20:28:39 “The Mark Buoys Are Picked Up And The Ship Heads For Home.”
- men in small boat picking up buoy, MLS steam ship at sea viewed from another wavering ship
- 20:29:02 “Captain Livingston, Officers And Ship’s Company Of The ‘Marie Louis Mackay’” - deck of ship crowded with sailors
- 20:29:18 “The Installation, Maintenance And Operation Of Land Lines.”

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- 20:29:21 "The Main Office Of The Postal Telegraph-Cable Company, New York City" - still of city block with tall buildings
- 20:29:33 "A Postal Telegraph Company's Construction Camp."
- men getting into back of truck
- 20:30:06 "Giant Motor Trucks Are Loaded With Men And Equipment."
- truck moving through camp, men loading truck
- 20:30:38 "Off On The Job!" - truck and men at tent camp, two men getting into automobile and driving off
- 20:30:47 "The Machine Digs Holes For Telegraph Poles In Record Time."
- post-hole digger mounted on truck
- 20:31:11 "By The Old Method, If A Man Dug Two Holes A Day, It Was Considered Good Work." - CSs machine digging hole
- 20:31:50 "This Machine Has A Record Of 150 Holes Dug And Poles Set In One Day." - machine and men setting pole
- 20:32:31 "Drawn By Motor Trucks, New Copper Wire Conductors Are Laid Over The Poles In This Manner." - men working with reels of wire, feeding wire over cross arms of pole
- 20:33:16 "Constant Communication Is Maintained With The Main Office From The Road Side." - man punching telegraph on a fence post
- 20:33:31 "Dense Foliage Causes Much Trouble And Has To Be Frequently Trimmed." - man on rope between poles cutting branches of trees
- 20:34:23 "Chow!!" - tents at campsite, trucks arriving, men jumping off
- 20:34:57 "In The Snow Bound Fastnesses Of The Sierras, Thousands Of Feet Above Sea Level, The Line Has To Be Built And Kept In Repair."
- snow scene with telegraph lines
- 20:35:20 "The Canadian Pacific Railway Lines Are Exclusively Affiliated With The Postal Telegraph Company." - telegraph wires along railway
- 20:35:37 "These Scenes Are Incorporated Through The Courtesy Of The Canadian Pacific Railway Company." - views of man on telegraph cross arms with river in background
- 20:36:07 "Leaving The Foliaged Lanes And Highways Of The Country, We Bring You Again To The Postal Building, New York."
- 20:36:17 "The Spacious Lobby And Grand Stair Case Are Done In Imported Italian Marble" - people walking on stairway with sign: "The Corn Exchange Bank", people at row of teller's windows, people at desks with candlestick telephones and woman giving man at desk document in foreground
- 20:36:56 "General View Of Main Operating Room." - men and women working at desks in large crowded room
- 20:37:26 "Main Line Switch Board." - row of men standing before a large panel of wires and plugs
- 20:37:45 "Wire Chief Testing Circuits." - man working at panel
- 20:38:03 "Messages From All Parts Of The Operating Room And Various Branch Offices Are Sent And Received Through Pneumatic Tubes."
- desk with tubes, area with large number of tubes and chutes
- 20:38:35 "Concentration Board Controlling Short Lines To Customers."

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- another type of patch panel with a vast tangle of wires
20:38:48 "Making Connections To Branch And Outlying Offices." - CS patch field
20:39:02 "Testing The Repeater Apparatus On Long Through Circuits."
- men working with telegraph instruments
20:39:09 "This Bulb Lights Automatically, Announcing A Signal From An Outside
Office." - lamp on post in midst of machinery with man's hand typing
-20:39:36 on telegraph key in foreground, "End of Part 3"
- 20:39:37 "Part 4"
20:39:41 "General View Of The Multiplex Department." - women working on tape
punching typewriters
20:40:03 "Multiplex System - 4 Operators On Each Circuit - 2 Sending And 2
Receiving" - women typing
20:40:13 "The Sending Machine Resembles And Is Worked Like A Typewriter."
- MCS man's hands typing on tape sender
20:40:32 "The Automatic Transmitter Punches The Messages In Morse On
The Tape." -CS punched tape moving through machine
20:40:43 "This Transmitter Can Be Operated At The Rate Of 300 Letters
Per Minute." - CS punched tape moving through machine
20:40:55 "Automatic Receiving" - very early line printer, CS of printer
platter printing: "This Is A Sample Of The Work As Done By The
Morkrum System Of Multiplex Telegraph As Employed By The
Postal Telegraph And Cable Co."
20:41:18 "The Automatic Distributor, Which Divides Messages Between The
Various Parts Of the Multiplex" - CS motor-driven commutator
20:41:33 "The Messages Are Distributed By This Machine, Which Revolves At
The Rate Of 300 Revolutions Per Minute - Perfectly Synchronized With
A Similar Machine In A Distant Office." - CS two commutator boards
20:41:50 "Direct Transmission To The Line Without The Use Of Tape." - woman typing
20:42:04 "Duplex Apparatus. These Operators Are Sending And Receiving Over
The Same Wire Simultaneously." - man and woman sitting at a large
table full of machines, woman punching telegraph key
20:42:22 "How A 'Wreck' Is Handled." - woman and man at telegraph machine
20:42:26 "A Dead Tree Falls On The Wires." - tree falling, tree laying on ground on wire
20:42:45 "The Needle Of The Galvanometer Warns The Operator, Who Summons
The Wire Chief." - CS Weston center zero milliamperes meter, man an
women at telegraph machine
20:43:19 "'Patching' Around The Fault So That The Service Is Not Interrupted."
- man in front of huge patch field
20:43:43 "By Means Of This Instrument, Which Is Called A Wheatstone Bridge,
The Location Of The 'Wreck' Is Ascertained -" - man operating bridge
near patch field, CS bridge
- 20:44:08 "- And The Lineman In The District Office Is Notified" - man at patch field,
another man at another patch field
20:44:35 "The Lineman Drives To The Scene Of The 'Wreck' -" - men getting into auto,
truck and auto on rural road, man and woman at telegraph machine, autos along
rural road, auto along path with cows in background, men in auto approaching

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fallen tree

- 20:45:44 “- And Immediately Proceeds To Cut The Wires From Under The Obstruction And Make Temporary Connections”
- men working near fallen tree
- 20:47:01 “The Temporary Splice.” - CS man connecting wires
- 20:47:46 “The Lineman Mounts The Pole, Cuts In With His Portable Instrument And Signals ‘Wire Clear.’” - auto on road and man climbing pole, man on cross arms, milliamperes meter, man and woman at telegraph machine
- 20:49:00 “The Method Of Splicing The Copper Wire In The Field”
- CS man in front of truck splicing wire
- 20:49:57 “Cross Arms Are Hoisted And Attached.” - riggers attaching cross arms to pole
- 20:50:52 “A Postal Telegraph-Commercial Cable Company’s Branch Office On One Of New York’s Busy Corners - 5th Ave. - 46th St.”
- HA storefront windows from across the street, PAN to street with traffic
- 20:51:29 “Thus The Mackay System, By Land And Sea, Links Up In Closer Ties Of Unity Nation To Nation.”- MLS steam ship at sea viewed from another ship
- 20:51:44 telegram: “The Fundamental Advantage Of Telegraph And Cable As Compared With Any Other Means Of Communication Are Secrecy, Speed and Reliability” - vignette scene of men on telegraph pole, man at desk writing
- 20:52:23