

Bomb Parts & Descriptions

April 3, 1996

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Bomb #1 Chicago, Ill.

Bomb #1

Victim: Terry Marker

Northwestern University (5/26/78)

FBI Description

(Explosive Device #1)

15. This device was contained in a parcel wrapped in brown paper and was discovered unattended in the University of Illinois, Chicago Campus, Engineering Building parking lot. The parcel was addressed to Professor E.J. Smith at Rensselaer Polytechnic Institute (RPI), Troy, New York, with a return address of Professor Buckley Crist at Northwestern University (NWU), Evanston, Illinois. The woman who discovered the parcel contacted Northwestern University and made arrangements to have the parcel returned to Crist. Upon receiving the parcel, Crist became suspicious, since he had not mailed any such parcel. He then contacted the NWU, Department of Public Safety. When the parcel was opened by a NWU Public Safety officer, it exploded causing only minor injuries. The officer's injuries were minor because the majority of the blast was directed to the side away from the officer. However, an analysis of the components of the explosive device by the Bureau of Alcohol Tobacco and Firearms (ATF) Laboratory concluded that this device was capable of causing serious injury or death to persons in close proximity to the explosion. Professor E.J. Smith, the intended recipient of the parcel, was located and interviewed by ATF agents. He stated, as did Professor Crist, that he had no knowledge of the parcel and no information concerning who might have constructed the bomb.

16. An analysis of the components of the explosive device by the ATF Laboratory revealed that it was constructed of a one inch diameter galvanized pipe approximately nine inches in length sealed on one end with a wooden plug. The explosive charge consisted of two types of smokeless powders and match heads. The pipe containing the main charge, together with an improvised mechanical firing mechanism consisting of a nail held under tension by multiple rubber bands, was encased in a homemade wooden box. The cover of the box was designed to release tension on the firing pin causing the nail to strike the match heads, thus igniting the smokeless powder.

17. The following components were recovered from the blast scene:

- Remnants of 1" pipe
- Wooden box
- Screws
- Nails
- Rubber bands
- Epoxy
- Two types of smokeless powder
- Match heads
- wood plug
- 3/4" black plastic tape
- 1/2" filament tape
- Brown wrapping paper
- "Eugene O'Neill" \$1 U.S. postage stamps - Mailing label

Bomb #2 Evanston, Ill.

Bomb #2

Victim: John G. Harris

Northwestern University (5/9/79)

Exhibit G: Loop Switch

FBI Description

(Explosive Device #2).

18. This device, contained in a "Phillies" brand cigar box, was discovered on a table in room 2424 of the Technical Building of Northwestern University, Evanston, Illinois. At the time of the explosion, Room 2424 was described as an area which was utilized primarily by graduate students, faculty, and visiting scholars, and was normally occupied by two teaching assistants. The device was observed by students on the morning of May 9, 1979, but it was not until mid-afternoon that John Harris, a member of the Civil Engineering Department, opened the box. Upon opening the box, the device exploded inflicting numerous lacerations and burns to Harris.

19. An analysis of the components of the explosive device by the ATF laboratory revealed that the main charge explosives consisted of match heads and a fusing system, consisting of two independent circuits each of which could detonate the device. Each circuit consisted of two C-cell batteries wired to two improvised wooden dowel initiators. Each initiator contained a pair of wires routed through a wooden dowel. The wires were joined at their termination point by a thin bridge wire. The termination point was inside the explosive main charge. When the box was opened, the electrical circuit was completed, and the thin bridge wire was heated, thereby igniting the mixture of smokeless powder and match heads. The above materials were contained in a "Phillies" brand cigar box which incorporated an anti-open switch designed to trigger the device upon opening the box lid.

20. The following components were recovered from the blast scene:

- "Phillies" Cigar box
- Anti-open switch (wire loop switch)
- Smokeless powders
- Match heads
- Paper pouch (contained powder and match heads)
- C-cell batteries
- White insulated duplex stranded wire
- Solder
- Wood fragments
- Wooden dowels (part of initiator assemblies)
- Maple wood sticks
- Epoxy
- White glue
- Monofilament fishing line
- 3/4" white filament tape
- 3/4" black plastic tape
- 3/4" black friction tape
- 1/2" filament tape
- Brown paper
- Tape tabs

Bomb #3 American Airlines Flight 444

Bomb #3

Victims: 12 Injured

American Airlines Flight 444 (11/15/79)

Exhibit F: Initiators

FBI Description

(Explosive Device #3)

21. This device was contained in a parcel which was mailed from the North Suburban postal facility which is located in the in Chicago; Illinois area, on November 14, 1979. Investigators have not been able to determine the intended addressee of parcel, or the return address, as a result of the damage sustained by the parcel following detonation. However, because the parcel was routed by U.S. Postal employees to Washington, D.C., aboard an American Airlines Boeing 727 the address was believed to have been the Northeastern United States. Shortly after takeoff, after the aircraft had reached the approximate altitude of 34,500 feet, the flight crew experienced problems with the aircraft which they described as a thump. Smoke subsequently filled the cabin and the aircraft was forced to make an emergency landing. It was later determined that the device had exploded in a mail container located in the baggage compartment. Approximately eighteen of the passengers were treated at the scene for smoke inhalation. The baggage compartment of the aircraft and the items inside were damaged by fire.

22. An analysis of the components of the explosive device by the FBI Laboratory revealed that it was constructed from a large juice can which housed an explosive main charge comprised of smokeless powder and a variety of chemicals commonly utilized in the manufacture of pyrotechnics, such as fireworks. The fuzing system consisted of four C-cell batteries wired to a modified barometer switch and a loop switch to two improvised wooden dowel initiators. The device was contained in a homemade wooden box with a lid hinged at the rear. The barometer switch was designed to initiate the device as the aircraft gained altitude. The device also contained a second fuzing system which was an anti-open switch which would activate the device upon opening its lid.

23. The following components were recovered from the blast scene:

- Wooden box
- Anti-open switch (wire loop switch)
- Wooden dowels (part of initiator assemblies)
- Barometer
- Smokeless powders
- Aluminum, magnesium residue
- Potassium chloride, Barium sulfate residue
- Tin juice can
- C-cell batteries
- Solder
- White insulated duplex stranded wire
- Black insulated stranded wire
- Brown insulated stranded wire
- Epoxy
- White glue
- 1/2" filament tape
- 3/4" filament tape
- 3/4" black friction tape
- 3/4" black plastic tape
- 1" masking tape
- Brass wood screws
- 3 penny common nails
- Sheetrock nails
- U-nails
- Monofilament fishing line
- Brown paper with stenciled markings
- Tape tab
- "America's Light fueled by Truth and Reason" U.S. postage \$1 stamps
- "Eugene O'Neill" \$1 U.S. postage stamps
- "Lucy Stone" \$.50 U.S. postage stamps
- "Frederick Douglass" \$.25 U.S. postage stamps

Bomb #4 Lake Forest, Ill.

Bomb #4

Victim: Percy Wood

Lake Forest, Ill. (6/10/80)

Exhibit D: End Plug

Exhibit G: Loop Switch

FBI Description

(Explosive Device #4)

24. A few days prior to June 10, 1980, Percy Wood, President of United Airlines, received a type-written letter via U.S. Mail from an Enoch W. Fischer. The letter was sent to Wood's residence in Lake Forest, Illinois, a suburb of Chicago. The letter stated that Fischer was taking the liberty of sending, under separate cover, a book which he indicated had great social significance. On June 9, 1980, the parcel containing the device arrived at Wood's residence, but was not opened by Wood until the afternoon of June 10, 1980. Wood unwrapped the parcel which contained a book entitled "Ice Brothers" written by Sloan Wilson. Upon opening the book, the device exploded inflicting serious lacerations to Wood's face and upper left leg. Subsequent investigation determined that the addressor, Enoch W. Fischer, was a fictitious person.

25. An analysis of the components of the explosive device revealed that it was constructed of a section of 3/4" diameter galvanized pipe sealed on each end by a combination of nails and epoxy glue. The explosive mixture contained within the pipe was comprised of three types of smokeless powders. The fuzing system consisted of two D- cell batteries, wired in series, through two improvised loop switches to an unknown fusing system inside the pipe). The device was contained within a hollowed out book titled "Ice Brothers" and was designed to detonate upon opening. The device also contained a metal tag with the letters "FC" stamped into it. This was the first incident in which these initials were used.

26. The following components were recovered from the blast scene:

- Remnants of book titled "Ice Brothers"
- Wood fragments
- Epoxy
- White glue
- Smokeless powders
- 1" masking tape
- 3/4" black plastic tape
- 3/4" black friction tape
- 3/4" cellophane tape
- 3/4" filament tape
- 1/2" filament tape
- 3/4" white reinforced tape
- Remnants of 3/4" diameter galvanized pipe
- 3/4" threaded pipe end caps
- Anti-open switch (wire loop switch)
- Common nails
- D-cell batteries
- Blue lined white paper
- Brown paper
- Solder
- White and black insulated duplex stranded wire
- Tape tabs
- Mailing label
- "Frederick Douglass" \$.25 U.S. postage stamp
- "Will Rogers" \$.15 U.S. postage stamp
- "America's Light fueled by Truth and Reason" \$1 U.S. postage
- 5/8" metal tag bearing stamped letters "FC"
- Cardboard from "Bugles Cereal" box
- Newspaper

Bomb #5 University of Utah

Bomb #5

Victim: None

University of Utah (10/8/81)

Exhibit D: End Plug

Exhibit F: Initiator

FBI Description

(Explosive Device #5)

27. This device was contained in a large paper wrapped package and was discovered in the third floor hallway of Bennion Hall Business Building at the University of Utah in Salt Lake City, Utah. The student who discovered the package brought it to the attention of a staff member who notified the campus police. Prior to the police arriving, a student tipped the package whereupon a stick slid out from the bottom. The campus police chief examined the package and, believing it was a bomb, contacted a local Explosive Ordinance Demolition (EOD) team and requested that they respond to the campus. Upon arrival, the EOD team X-Rayed the package and determined that it was in fact a bomb. The device was then rendered safe with a small explosive charge.

28. An analysis of the components of the explosive device conducted by the FBI and Postal Service Laboratories revealed that it was constructed from an 8" length of 1" diameter galvanized pipe sealed on each end with wooden plugs. The explosive mixture contained within the pipe was comprised of at least three types of smokeless powders. The fuzing system consisted of two D-cell batteries, a household on/off switch, an improvised slide switch, and an improvised initiator, arranged in series. The device, which was attached to a gasoline can, was designed to detonate upon lifting the package approximately four inches, thus allowing the slide switch to make contact. The device also contained a metal tag with the letters "FC" stamped upon it.

29. The following components were recovered from the blast scene:

- Remnants of 1" diameter galvanized pipe
- Wooden end plug
- Wooden stick with copper/metal contacts
- Steel wool
- Three types of smokeless powder
- Match heads
- D-cell batteries
- Gasoline can (one gallon)
- Brown paper
- 1" transparent tape
- 1/2" filament tape
- 3/4" masking tape
- 3/4" black friction tape
- 3/4" black plastic tape
- Duplex transistor speaker wire
- Brown insulated duplex stranded wire
- White insulated duplex stranded wire
- White insulated nylon-fiber reinforced 3-strand wire
- Epoxy
- Wood screws
- multi-filament string
- Brown twine
- GE brand light switch
- Glass tubes
- Box nails
- Wooden box
- Wooden dowel (part of initiator assemblies)
- wooden plug (forced through gas can pour spout)
- 3/4" metal tag bearing stamped letters "FC"

Bomb #6 Nashville, Tenn.

Bomb #6

Victim: Patrick Fischer

Nashville, Tenn. (5/5/82)

Exhibit D: End Plug

Exhibit F: Initiator

FBI Description

(Explosive Device #6)

30. This device was contained in a parcel which was addressed and mailed to Professor Patrick C. Fischer at Pennsylvania State University (PSU), with a return address of Professor LeRoy W. Bearson at Brigham Young University (BYU) in Provo, Utah. The parcel, which had been mailed from the BYU campus post office, was subsequently forwarded by a secretary at PSU to Fischer at Vanderbilt where he had been teaching for approximately two and one half years. Fischer was out of the country at the time the parcel arrived at Vanderbilt. Janet Smith, Fischer's secretary, opened the parcel, which exploded inflicting serious injuries to her face and arms. During an interview of Dr. LeRoy Bearson, professor of Electrical Engineering, he stated that he had no knowledge of any such parcel.

31. An analysis of the components of the explosive device conducted by the FBI and Postal Service Laboratories, revealed that it was constructed from a 1-1/2" diameter household sink trap (U-shaped pipe) sealed on either end with wood/metal plugs and nails. The explosive mixture contained within the pipe was comprised of at least five types of smokeless powders. The fuzing system consisted of four D-cell batteries arranged in two independent circuits. Each circuit was wired to include a loop switch and an improvised wooden dowel initiator located inside the pipe. The device was contained in a homemade wooden box which incorporated twin pivoting levers held in tension by multiple rubber bands. The device was designed to detonate upon removal of the outer package wrapping which relieved pressure on the levers, thus closing the loop switches. The device contained a metal tag stamped with the letters "FC."

32. The following components were recovered from the blast scene:

- Remnants of 1-1/2" metal sink trap
- Wood plugs
- Thin metal discs
- Brown paper
- Five types of smokeless powders
- Match heads
- Rubber bands
- D-cell batteries
- Wooden dowels (part of initiator assemblies)
- Wooden discs
- Brown insulated duplex stranded wire
- White insulated duplex stranded wire
- 3/4" black plastic tape
- 3/4" black friction tape
- 3/4" filament tape
- 3/4" masking tape
- Epoxy
- Wood screws
- Multi-filament string
- Nails
- Wood fragments
- Solder
- Anti-open switches (wire loop switch)
- Metal tag bearing stamped letters "FC"
- "Eugene O'Neill" \$1 U.S. postal - Mailing label

Bomb #7 Berkeley, Calif.

Bomb #7

Victim: Diogenes J. Angelakos

University of California, Berkeley (7/7/82)

Exhibit G: Loop Switch

FBI Description

(Explosive Device #7)

33. This device was discovered by Professor Diogenes Angelakos in Room 411 of the Cory Hall Mathematics Building on the University of California, Berkeley campus. Angelakos observed the device sitting on the floor and believed it to be some type of test device or piece of equipment belonging to a student or a construction crew. Upon lifting the handle, the device exploded inflicting serious injuries to Angelakos' right hand, arm, and face.

34. An analysis of the components of the explosive device conducted by the FBI Laboratory revealed that it was constructed from an 8- 1/2" length of 1/2" galvanized pipe sealed on either end with threaded caps. The explosive main charge contained within the pipe was comprised of at least four types of smokeless powders. The fuzing system consisted of four D-cell batteries arranged in two independent circuits. Each circuit was wired to include a loop switch attached to each upright shaft of a handle, which was attached to a wooden box and an improvised wood dowel initiator located inside the pipe. The device consisted of a homemade wooden box which sat on top of a gasoline can. The pipe was suspended in the gasoline can. This device was designed to detonate upon lifting the handle. Incorporated into this device was an ancillary component fashioned to resemble a piece of test or measurement equipment. This component was placed on top of the device and served no functional purpose in it's operation as far as subsequent laboratory analysis has been able to determine. Affixed to this ancillary component was a note bearing the typed phrase "Wu — It works! I told you it would. — RV."

35. The following components were recovered from the blast scene:

- Remnants of 1/2" pipe
- 1/2" size threaded end caps
- Gasoline can (one gallon)
- Wooden dowels (part of initiator assemblies)
- Wooden handle
- Blue lined paper
- Brown paper
- White insulated duplex stranded wire
- Brown insulated duplex stranded wire
- 3/4" black plastic tape
- 3/4" black friction tape
- 3/4" masking tape
- 3/4" filament tape
- 1/2" filament tape
- Epoxy
- Black rubber
- Green paint
- White putty
- Screws
- U-nails
- Staples
- Wooden components
- Solder
- D-cell batteries
- Four types of smokeless powder
- Anti-lift switch (wire loop switch)
- Ancillary component
- Red and black insulated stranded wire
- Leviton toggle switches
- GE flashlight bulbs
- Alligator clips
- 3/4" black plastic tape
- Improvised wooden knob and nail spindle
- Flattened nail pointer

Bomb #8 Berkeley, Calif.

Bomb #8

Victim: John E. Hauser

University of California, Berkeley (5/15/85)

Exhibit E: End Plug

FBI Description

(Explosive Device #8)

36. This device, in the form of a three-ring binder affixed to a plastic file box, was discovered by Air Force Captain John Hauser, a graduate student in the University of California Berkeley, Computer Science Department. Hauser observed the device on a table located in Room 264 of the Cory Hall Computer Science Building. Room 264 houses several computer terminals which are frequently used by students in the department. Believing that it was another student's project, Hauser attempted to lift the binder cover to view the contents. Upon lifting the cover, the device exploded inflicting serious injuries to Hauser's right hand including permanent nerve damage and the loss of four fingers.

37. An analysis of the components of the explosive device conducted by the FBI Laboratory revealed that it was constructed from a length of 3/4" pipe sealed on either end by two plugs fabricated from metal bar stock and secured with metal pins and cable. One of the metal plugs had the letters "FC" stamped into its end. The explosive mixture contained within the pipe was comprised of aluminum powder and ammonium nitrate. The fuzing system consisted of six D-cell batteries arranged in series to include an improvised loop switch and a metal/wooden initiator located inside the pipe. The device was housed in a plastic file box with wooden framework and was designed to explode upon opening the lid.

38. The following components were recovered from the blast scene:

- Remnants of 3/4" and 1" diameter pipe
- Metal shim material (.006" - .009")
- Metal end plugs ("FC" stamped into end of one plug)
- Nail fragments
- U-nails
- Metal shim material (.025" - .030")
- Securing pins (5/16" x 1-1/2", tick marks present on pin and pipe components.
- Metal bracket/straps
- D-cell batteries
- Wooden frame
- Picture cord style wire
- Stranded wire cable
- Brown insulated stranded wire
- Green insulated stranded wire
- 3/4" black friction tape
- 3/4" black plastic tape
- 3/4" masking tape
- Epoxy
- Wooden dowels (part of initiator assemblies)
- Screws
- Lead pieces
- Double pointed 3/8" tacks
- Rubber bands
- Plastic box - Solder

Bomb #9 Auburn, Wash.

Bomb #9

Victim: None

Auburn, Wash. (5/18/85)

Exhibit E: End Plug

FBI Description

(Explosive Device #9)

39. This device was contained in a parcel, wrapped in brown paper, which was addressed and mailed to the Boeing Aircraft Company, Fabrication Division in Auburn, Washington, with a return address of Weiburg Tool & Supply in Oakland, California. Subsequent investigation revealed that the aforementioned company, listed on the parcel's return address, was both a fictitious name and fictitious address. The parcel, which had been mailed from Oakland (postmarked May 8, 1985) was not addressed to a specific individual, and therefore, remained in the company interoffice mail until it was partially opened by mail room employees who discovered the enclosed device. Boeing officials notified the King County Sheriff's Bomb Squad, who subsequently rendered the device safe by detonation.

40. An analysis of the components of the explosive device by the FBI and U.S. Postal Service Laboratories revealed that it was constructed from a 13-3/4" length of 1-1/4" diameter pipe. The pipe was sealed on either end by two aluminum plugs and secured by steel bars and epoxy glue. Both of the metal plugs had the initials "FC" stamped into their ends. The explosive mixture contained within the pipe was comprised of aluminum powder and potassium sulfate, a combustion product of black powder. The fuzing system consisted of eight D-cell batteries arranged in two independent four-cell circuits. Each circuit included an improvised slide switch, both of which were connected to a common improvised wood/metal initiator located inside of the pipe. The entire device was encased in a homemade wooden box. Each slide switch was mounted in a channel inside the box and held in tension by a spring. The device was designed to detonate upon removal of the wrapping paper which would open a lever in the box allowing the slide switches to move to the closed position.

41. The following components were recovered from the blast scene:

- 1-1/4" steel pipe
- End plugs (aluminum/magnesium alloy, letters "FC" stamped into ends of both plugs)
- Rectangular securing pins
- Metal shim material
- Metal bands, 3/8" width
- D-cell batteries
- Brown paper
- Three types of tape
- picture cord style cable
- Beige insulated duplex wire
- Green insulated stranded wire
- Epoxy
- Elmer's glue
- Screws
- Nails
- Wooden box
- Wooden chocks
- Wooden switches
- Wooden wafer (part of initiator assembly)
- 2" transparent tape
- 3/4" black plastic-tape
- 3/4" black friction tape
- 1/2" filament tape
- Wooden stick
- Wooden pegs
- Coil springs
- Metal strips
- Solder
- "Of the People By the People For the People" \$.22 U.S. postal stamps
- "America's Light Fueled by Truth and Reason" \$1 U.S. postal stamps
- Red, white and blue mailing label

Bomb #10 Ann Arbor, Mich.

Bomb #10

Victim: James McConnell, Nick Suino

Ann Arbor, Mich. (11/15/85)

Exhibit E: End Plug

FBI Description

(Explosive Device #10)

42. This device was contained in a parcel which was mailed from Salt Lake City, and was addressed to Dr. James V. McConnell at his home in Ann Arbor, Michigan. At the time of this incident, McConnell was a Professor of Psychology at the University of Michigan. The return name and address marked on the parcel was that of Ralph C. Kloppenburg, Department of History at the University of Utah. Attached to the outside of the package was a letter to McConnell, purportedly signed by Kloppenburg, requesting that McConnell review and critique the enclosed manuscript. When Nick Suino, an assistant to Dr. McConnell, opened one end of the parcel, the device exploded inflicting injuries to Suino's arms and abdomen and injuring McConnell's eardrum. Investigation determined that the addressor, Ralph C. Kloppenburg, was a fictitious person.

43. An analysis of the components of the explosive device conducted by the FBI and Postal Service Laboratories revealed that it was contained in a hollowed-out ream of paper, and was constructed from a 10-1/4" length of 1" galvanized steel pipe. The pipe was sealed on either end by two plugs fabricated from steel bar stock each being secured by two steel pins with epoxy glue and shim material. One end plug was stamped with the letters "FC". In addition to the end construction, the pipe was reinforced on each end with short metal sleeves fashioned from another piece of pipe having an outer diameter of 1-5/16". The explosive mixture contained within the pipe was comprised of aluminum powder and ammonium nitrate. The fuzing system consisted of four D-cell and six AAA-cell batteries arranged in two independent circuits. Each circuit was wired to a spring-loaded triggering switch mechanism connected to a single improvised initiator located inside of the pipe. The device was designed to detonate upon unwrapping the parcel allowing tension to be relieved on the switch.

44. The following components were recovered from the blast scene:

- Remnants of 1" galvanized steel pipe.
- 3/4" diameter metal end plugs (Letters "FC" stamped into end of one plug)
- 5/16" and 5/32" diameter securing pins, tick marks present on securing pins
- 15/16" diameter metal sleeve
- Metal bands
- Four D-cell batteries
- Six AAA-cell batteries
- Solder
- Remnants of douglas fir wood
- Brown insulated duplex stranded wire
- Red insulated stranded wire
- Single strand steel wire
- 1/2" filament tape
- 3/4" black friction tape
- 3/4" black plastic tape
- 3/4" masking tape
- Epoxy
- 0.060" sheet steel
- Brass and wood screws
- Nail
- Wire staples
- Red paint
- Lead split shot
- Black plastic binder
- Brown paper
- "Of the People By the People For the People" \$.22 U.S. postal stamps
- "America's Light Fueled by Truth and Reason" \$1 U.S. postal stamps
- Red, white and blue ailing label

Bomb #11 Sacramento, Calif.

Bomb #11

Victim: Hugh Scrutton

Sacramento, Calif. (12/11/85)

Exhibit E: End Plug

FBI Description

(Explosive Device #11)

45. This device was left outside the rear door of Rentech Computer Rental Company in Sacramento, California. The device had the appearance of a block of wood, with nails protruding at the ends. Hugh Scrutton, the owner of Rentech, observed the device, and attempted to move or lift it. At that time the device exploded and killed Scrutton.

46. An analysis of the components of the explosive device conducted by the FBI Laboratory revealed that it was constructed from a 10" length of 1" diameter steel pipe sleeved by a 1-1/4" diameter steel pipe of the same length. Thin metal shim material was fitted between the pipes, apparently to fill any remaining gap. The pipe assembly was sealed on either end by two 1" diameter steel plugs each of which were drilled to accommodate two steel securing pins. One of the end plugs had the letters "FC" stamped into its surface. The explosive mixture contained within the pipe was comprised of aluminum powder and ammonium nitrate. The fuzing system consisted of four D-cell batteries and one 9-volt battery. Each of the D-cell batteries had electric wires soldered to the positive terminals. The precise wiring of the device could not be determined due to the extreme damage. However, it is believed that the device incorporated some form of spring-loaded lever or anti-movement triggering system wired to an improvised initiator located inside of the pipe. This device was designed to detonate upon being moved.

47. The following components were recovered from the blast scene:

- Remnants of 1" and 1-1/4" pipe
- 5/16" diameter metal pins
- 1" diameter metal plugs (Letters "FC" stamped into end of one plug)
- Metal shim
- Machine screws
- Wood screws
- Metal brackets
- 4 D-cell batteries
- 9-volt battery
- Solder
- Fragments of wood
- Stranded insulated copper wire
- Stranded insulated duplex wire
- 1/2" filament tape
- 3/4" black plastic tape
- 3/4" black friction tape
- 2" masking tape
- Epoxy adhesive
- Varnish
- Red paint
- Common nails
- Aluminum powder particles
- Ammonium nitrate residue
- Potassium chloride residue
- Potassium sulfate residue

Bomb #12 Salt Lake City, Utah

Bomb #12

Victim: Gary Wright

Salt Lake City, Utah (2/20/87)

Exhibit E: End Plugs

FBI Description

(Explosive Device #12)

48. On the day of the bombing, an employee of a business in Salt Lake City, Utah, observed, through the blinds of the rear office window, an unidentified white male bending down next to the witness's car. The employee observed the individual remove from a cloth bag what appeared to be two 2x4 pieces of wood nailed together with protruding nails and place the object near the front left tire of the car. The witness then called to a co-worker in the office, at which time the individual turned and looked up at the witness in the window. The individual then stood up with the bag and walked away through the parking lot leaving the device behind. Approximately an hour later, Gary Wright, Vice-president of CAAMS, Inc., drove his car into the rear parking lot and, after parking, noticed the device laying on the ground. Upon moving, the device exploded inflicting serious injuries to Wright.

49. ___, was an employee of CAAMS, Inc., and provided UTF investigators with a description of the individual who placed the bombing device on February 20, 1987. ___ stated his face was expressionless and ___ did not see his teeth or anything unusual about his face. ___ advised there were no scars and marks on his face, and he had a light strawberry blond colored mustache with no other facial hair. ___ described his face as being thin, reddish flush, rough looking complexion, but not with pock marks or other types of deformities. ___ indicated ___ overall impression of him was that he looked healthy.

50. ___ described his hands as being white, more so than his face, with long thin fingers and no hair on his hands that was noticed. ___ stated his hands were clean, with no callouses observed, and the fingernails were clean. There were no scars, marks or jewelry on his wrist or hands, and the cuff on the white sweatshirt was gathered at the wrist.

51. ___ has been re-interviewed regarding this event. ___ has also worked with the UTF and sketch artists in order to develop a composite sketch, a recent composite drawing based on these interviews is attached to this affidavit as attachment 1.

52. An analysis of the components of the explosive device conducted by the FBI and ATF Laboratories revealed that it was constructed from a three layer concentric assembly of 1" and 1-1/4" steel pipes separated by a single layer of thin steel shim material. The pipe assembly was sealed on both ends by plugs fabricated from 1" steel bar stock, each secured with three metal pins and metal shim material. One of the end plugs had the initials "FC" stamped into its end. The explosive mixture contained within the pipe was comprised of aluminum powder and ammonium nitrate. Also present was potassium chloride and potassium sulfate. The fuzing system consisted of four D-cell batteries arranged in a single circuit to include an anti-lift or spring-loaded lever switch and an improvised initiator located inside of the pipe. This device was designed to detonate upon being moved.

53. The following components were recovered from the blast scene:

- Remnants of 1" and 1-1/4" pipe
- Remnants of shim material
- 5/16" diameter metal pins
- 1" diameter metal plugs (Letters "FC" stamped into end of one plug)
- Metal straps
- Tan insulated duplex multi-strand wire
- Red insulated single strand wire
- Uninsulated multi-strand wire
- Cable wire
- Clear epoxy
- Grey epoxy
- Aluminum powder residue
- Ammonium powder residue
- Potassium chloride residue
- Potassium nitrate residue
- 3/4" black electric tape
- 3/4" black friction tape
- 3/4" masking tape
- 2" silver duct tape
- 1", 3/4", 1/2", and 1/4" clear fiber reinforced tape
- Iron bridge wire (initiator)
- 1" diameter wood discs
- Lead wedges
- Metal plates
- Nails
- Screws
- D-cell batteries
- Wood fragments

Bomb #13 Tiburon, Calif.

Bomb #13

Victim: Dr. Charles Epstein

Tiburon, Calif. (6/22/93)

Exhibit C: Pivot Switch

Exhibit D: Metal End Plug

FBI Description

(Explosive Device #13)

54. This device was contained in a padded envelope and was mailed to Dr. Charles Epstein at his residence in Tiburon, California. Dr. Epstein was a professor at the University of California, San Francisco, Medical School. The parcel was mailed from Sacramento, California, with a return address listed as James Hill, Chemistry Department, California State University, Sacramento, California. Mr. Hill has been interviewed and has no knowledge of the parcel. Shortly after noon on June 22, 1993, Epstein's daughter retrieved the parcel from the mailbox and placed it on the kitchen counter. At approximately 4:30pm that day, Dr. Epstein returned to his residence and began to open his mail. Upon opening, the parcel exploded inflicting serious injuries to Dr. Epstein.

55. An analysis of the components of the explosive device was conducted by the FBI Laboratory and revealed that the device was constructed from an approximately 6" length of 3/8" copper tubing sealed on both ends by plugs comprising of metal, wood, and epoxy, which were secured by 1/8" metal pins. The explosive material contained within the tubing was comprised of a mixture of potassium chlorate and aluminum powder. The fuzing system consisted of four 9-volt batteries, an improvised anti-open switch, and an improvised initiator. The exact wiring of this device cannot be determined due to the fragmented condition of the components. The device was housed in a small homemade box fashioned from redwood. This device was designed to detonate upon opening the package.

56. The following components were recovered from the blast scene:

- Remnants of 3/8" copper tubing
- Metal end plugs
- Metal disks
- Wooden dowel (part of initiator assembly)
- 1/8" diameter metal pins
- Four 9-volt batteries
- Potassium Chlorate residue
- Aluminum powder residue
- Solder
- Remnants of redwood
- Black insulated stranded wire
- White insulated stranded wire
- Black insulated single strand wire
- Uninsulated single strand wire
- Monofilament tape
- 3/4" black plastic tape
- 3/4" transparent tape
- Clear/yellow epoxy
- Improvised metal/wood flip switch
- Staples
- Rubber bands
- Spring
- Paper clip
- Screws
- Screen material
- Lead strips
- Red pull tab
- Padded envelope
- "USA Flag-Olympic Ring" \$.29 U.S. postage stamps

Bomb #14 New Haven, Conn.

Bomb #14

Victim: David Gelernter

New Haven, Conn. (6/24/93)

Exhibit C: Pivot Switch

Exhibit D: Metal End Plug

FBI Description

(Explosive Device #14)

57. This device was also contained in a padded envelope and was mailed to Dr. David Gelernter at his office in the Computer Science Department of Yale University, New Haven, Connecticut. The parcel was mailed from Sacramento, California, postmark dated June 18, 1993, with a return address listed as Mary Jane Lee, Computer Science, California State University, Sacramento, California. Professor Lee has been interviewed and has no knowledge of the parcel. Gelernter arrived at his office at approximately 7:00 am on June 24, 1993, and immediately began to open his mail. The parcel exploded upon opening, inflicting serious injuries to Dr. Gelernter. The mailing labels and padded envelopes appear to be identical in both the Epstein and Gelernter bombings.

58. An analysis of the components of the destructive device conducted by the FBI Laboratory revealed that the device was constructed from an approximately 6" length of 3/8" copper tubing sealed on both ends by plugs constructed from metal, wood, and epoxy and secured by 1/8" metal pins. The explosive material contained within the tubing was comprised of a mixture of potassium chlorate and aluminum powder. The fuzing system consisted of four 9-volt batteries, an improvised anti-open switch, and an improvised initiator. The exact wiring of this device cannot be determined due to the fragmented condition of the components. The device was housed in a small homemade box fashioned from redwood. This device was designed to detonate upon opening. It appears to be identical to the explosive device sent to Dr. Epstein.

59. The following components were recovered from the blast scene:

- Remnants of 3/8" copper tubing
- Metal end plugs
- Metal disks
- Wooden dowel (part of initiator assembly)
- 1/8" diameter metal pins
- Four 9-volt batteries
- Potassium Chlorate residue
- Aluminum powder residue
- Solder
- Remnants of redwood
- Black insulated stranded wire
- White insulated stranded wire
- Black insulated single strand wire
- Uninsulated single strand wire
- Monofilament tape
- 3/4" black plastic tape
- 3/4" transparent tape
- Epoxy
- Improvised metal/wood flip switch
- Staples
- Rubber bands
- Spring
- Paper clip
- Screws
- Screen material
- Lead strips
- Red pull tab
- Padded envelope
- "USA Flag-Olympic Ring" \$.29 U.S. postal stamps

Bomb #15 North Caldwell, N.J.

Bomb #15

Victim: Thomas J. Mosser

North Caldwell, N.J. (12/10/94)

Exhibit C: Pivot Switch

FBI Description

(Explosive Device #15)

This device was housed inside a homemade wooden box which was placed inside a white cardboard box. The package was mailed from San Francisco, California postmark dated 12/3/94 to the residence of Thomas J. Mosser at 15 Aspen Drive, North Caldwell, New Jersey. The package had a return address of H. C. Wickel, Department of Economics, San Francisco State University, San Francisco, California 94132. Subsequent investigation determined that there was no faculty member or student at San Francisco State University by that name, and no record of any such individual has been located. On the morning of December 10, 1994, Mosser opened the package, which exploded and killed him.

62. An analysis of the components of the destructive device conducted by the FBI Laboratory revealed that the device was constructed from a length of aluminum pipe (measuring at least 6- 1/2" in length but no longer than 9-1/2" and having an inside diameter of 13/16", with a wall thickness of 1/16"). Both ends of the aluminum pipe were sealed with metal end plugs having an outside diameter of approximately 13/16" and a length 1-3/8". Each metal plug was secured in place with two metal locking pins, 90 degree opposing, measuring approximately 1-1/2" in length and having a diameter of 1/4". A steel collar was placed over each end of the pipe containing the end plugs and secured in place with the same locking pins which cross through the end plugs. The explosive device was housed in a homemade wooden box, secreted inside a white cardboard box, approximately 9-1/2" in length, by 7-1/4" in width, 2 1/4" in height. The white cardboard box had additional sections of white cardboard glued to the inside of the box to form a double wall thickness. The construction of the wooden box was similar to the construction of the wooden boxes utilized in devices 13 and 14. Double edged razor blades and numerous paneling nails, approximately 1" in length, were placed in the explosive device for additional shrapnel. It was designed to function as an anti-personnel device. The explosive mixture contained within the aluminum pipe was comprised of sodium chlorate and aluminum. The fusing system consisted of four 9-volt batteries, an improvised anti-open switch (similar to a flip switch design in devices 13 and 14), and an improvised initiator. The exact nature of the switching mechanism and the wiring schematic cannot be determined due to the fragmented condition of the components. The device was designed to detonate upon opening.

63. The following components were recovered from the blast scene:

- 15/16" aluminum pipe fragments
- Metal end plugs
- Steel collars
- 1/4" diameter metal pins
- Four 9-volt batteries
- Ringshank nails
- Screws
- Razor blade fragments
- Sodium Chlorate residue
- Aluminum residue
- Solder
- Wood debris
- Small spring
- Green paneling nails
- Green insulated multi-strand wire
- Red insulated single strand wire
- White insulated multi-strand wire
- Black insulated multi-strand wire
- 3/4" monofilament tape
- 3/4" black plastic tape
- 3/4" black friction tape
- Epoxy
- Improvised metal/wood flip switch
- White cardboard fragments
- "Eugene O' Neill" 61 U.S. postage stamps - USA Flag \$.25 postal stamps
- Red, white and blue mailing label

Bomb #16 Sacramento, Calif.

Bomb #16

Victim: Gilbert B. Murray

Sacramento, Calif. (4/24/95)

Exhibit D: Metal End Plug

FBI Description

(Explosive Device #16)

69. This device was housed inside a wooden box which was covered with brown wrapping paper, bound by filament tape. The package was mailed from Oakland, California, and was addressed to William Dennison, Timber Association of California, 1311 I Street, Sacramento, California. The Timber Association of California however, had changed its name to the California Forestry Association, several years earlier, but had retained the same Sacramento address. The package had a return address of Closet Dimensions, Oakland, California. On the afternoon April 24, 1995, Gilbert B. Murray, President, California Forestry Association, opened the package, which exploded and killed him.

70. An analysis of the components of the destructive device conducted by the FBI Laboratory revealed that the device was constructed from a unknown length of lead pipe. The pipe had been intentionally scored to increase the potential of smaller shrapnel fragments. The explosive device was housed in a wooden box, covered with brown wrapping paper, secured by 3/4" filament tape. Two cast aluminum disks, approximately 3 1/2" in diameter, and approximately 7/16" thick, were also recovered. These disks appear to be of a "homemade" origin, containing numerous steel wires, believed to have been used for reinforcement purposes. The construction of the wooden box was similar to the wooden boxes utilized in devices 13, 14, and 15. Contained in the device was an undetermined length of approximately 3/8" copper tubing, which had an approximate wall thickness of .030". One end of the tube was sealed by a metal plug, secured in place by an approximate 1/8" metal pin. A partial closure plug for the opposing end was approximately 3/8" in diameter, and 3/8" in length. This plug exhibited two hole passing through the axis, which could have been used to contain the hot wire igniter. The construction of the copper tube and end plug is similar in construction to the copper tubing used in devices 13 and 14. The explosive mixture contained within the lead pipe was comprised of potassium chlorate and aluminum powder. The fuzing system consisted of at least four 9-volt batteries. The exact nature of the switching mechanism and the wiring schematic cannot be determined due to the fragmented condition of the components.

71. The following components were recovered from the blast scene:

- Lead pipe fragments
- Copper tube fragments
- 1/8" diameter metal plug
- Four 9-volt batteries
- Screws
- Potassium Chlorate residue
- Aluminum residue
- Solder
- Wood debris
- Small spring
- White insulated single conductor, multi-strand wire
- Black insulated single conductor, multi-strand tinned wire
- Uninsulated single strand steel wire, 0.030 diameter
- Uninsulated single strand steel wire, 0.012 diameter
- 3/4" filament tape
- 7/16" filament tape
- 1/4" filament tape - Improvised metal/wood switch
- "Eugene O' Neill" \$1 U.S. postage stamps
- "G" Series USA Old Glory postal stamps

The Ted K Archive

A critique of his ideas & actions



Bomb Parts & Descriptions
April 3, 1996

Turchie affidavit

www.thetedkarchive.com