

January-December 1949

January

February

March

April

May

June

July

August

September

October

November

December

January

Date	Caption	Dept.	Photographer	Number
1-3	Atomic % Fe, Temperature °C.	Teitel	M. H. Bull	1-1-9
1-3	From Gaw and Sokolov experimental data theoretical parameter.	Teitel	M. H. Bull	1-2-9
1-3	Temperature °C, Atomic % Fe.	Teitel	M. H. Bull	1-3-9
1-3	Time after injection of P ³² , hours.	Sachs	M. H. Bull	1-5-9
1-3	Time after injection of P ³² , hours.	Sachs	M. H. Bull	1-4-9
1-3	Hours after injection.	Sachs	M. H. Bull	1-6-9
1-3	Drawing of victoreen pocket chamber.	HPhysics	M. H. Bull	1-7-9
1-4	Temperature °C, Atomic % Fe.	Teitel	M. H. Bull	1-8-9
1-4	Temperature °C, Atomic % Be, Temperature °F, Weight % Be.	Teitel	M. H. Bull	1-9-9
1-4	Stereoptic drawings for Dale Meyer.	Adm	M. H. Bull	1-10-9 thru 1-15-9
1-4	Temperature °C, Atomic % Fe. Key: X-ray solubility determinations. (Refer to 1-8-9)	Teitel	M. H. Bull	1-16-9
1-4	Film badges.	HPhysics	M. H. Bull	1-17-9
1-4	Michael Amrine, Public Education.	Portrait	J. F. Garfield	1-18-9
1-4	Bulletin of Atomic Scientists.		J. F. Garfield	1-19-9
1-4	Radiation detection demonstration. (Block diagram.)	Kuper	M. H. Bull	1-20-9
1-4	Radiation detection chamber.	Ele	M. H. Bull	1-21-9
1-4	Aerial views of chemistry buildings.	Chemistry	R. J. Walton	1-22-9 thru 1-25-9
1-5	Figure 7: Spread of wheat stem rust during the first week of June 1925.	Met	M. H. Bull	1-26-9
1-5	Path of dust storm originating in the southwest 24-25 February 1936.	Met	M. H. Bull	1-27-9
1-5	Figure 5: Frontal system at the time of dust cloud generation and its position 24 hours later.	Met	M. H. Bull	1-28-9
1-5	Figure 4: Isochronal lines (est) showing dust cloud front 12-13 November 1933.	Met	M. H. Bull	1-29-9
1-5	Chart: Angle 8 for CoK _a radiation.	Teitel	M. H. Bull	1-30-9
1-5	Treatment all below 1000 °C.	Teitel	M. H. Bull	1-31-9
1-5	Figure 28: Reduction in ionization loss for various material. (17, p. 483).	Physics	M. H. Bull	1-32-9

Date	Caption	Dept.	Photographer	Number
1-5	Figure 25: Collision loss in iron as function of remaining range in air for mesons.	Physics	M. H. Bull	1-33-9
1-5	Figure 31: Pulse distribution due to cosmic ray mesons.	Physics	M. H. Bull	1-34-9
1-5	Figure 27B: Expected pulse distributions (modified by fluctuation in energy loss).	Physics	M. H. Bull	1-35-9
1-5	Slide negative for 1" squares - 4000 gauss in center of gap.	Kassner	M. H. Bull	1-36-9
1-5	Para deuterio toluene.	Friedman	M. H. Bull	1-37-9
1-5	Ortho deuterio toluene.	Chemistry	M. H. Bull	1-38-9
1-5	Toluene.	Friedman	M. H. Bull	1-39-9
1-5	Meta deuterio toluene.	Friedman	M. H. Bull	1-40-9
1-6	Meteorology smoke run.	Met	Meteorology	1-41-9 thru 1-48-9
1-6	Gradient wind and sea breeze.	Met	M. H. Bull	1-49-9
1-6	Figure 36: The Black Blizzard of April 14, 1935 near Lamar, Colorado.	Met	M. H. Bull	1-50-9
1-3	Back end cloud chamber interior.	Cloud Chamber	R. J. Walton	1-51-9 and 1-52-9
1-5	Cosmic ray burst detector.	McMahon	R. F. Smith	1-53-9
1-6	Meteorological tower showing smoke run on January 4, 1949.	Met	J. F. Garfield	1-54-9 1-55-9 1-56-9
1-6	Chart for A. Thorndyke - Balloon and V-2.	Physics	M. H. Bull	1-57-9
1-6	Average pressure in cm Hg.	Physics	M. H. Bull	1-58-9
1-6	Met. 9-12/28/48 Meteorology Group, Brookhaven National Laboratory.	Met	M. H. Bull	1-59-9
1-5	Experimental setup of magnet in lab.	Kassner	R. J. Walton	1-60-9
1-7	Site plan, south tract.	Met	M. H. Bull	1-61-9
1-10	Corn pollen.	Biology	R. F. Smith	1-62-9
1-10	Pollen grain (corn).	Biology	R. F. Smith	1-63-9
1-6	Overall view of cosmotron facing east.	Cosmotron	R. J. Walton	1-64-9
1-11	Chart for H. Hansteen.	Nuclear	P. Simack	1-65-9
1-11	Chart for H. Hansteen.	Reactor	P. Simack	1-66-9

Date	Caption	Dept.	Photographer	Number
1-11	Combination of hydrogen peroxide and hydrogen in dilute aqueous solution under radiation from Oak Ridge pile.	Chemistry	Paul Simack	1-67-9
1-11	Pea plant in greenhouse.	Gibbs	R. F. Smith	1-68-9
1-11	Experimental corn in greenhouse.	Singleton	R. F. Smith	1-69-9
1-11	Corn grass in greenhouse.	Singleton	R. F. Smith	1-70-9
1-11	Experimental corn in greenhouse.	Singleton	R. F. Smith	1-71-9
1-11	Corn grass in greenhouse.	Singleton	R. F. Smith	1-72-9
1-11	Corn grass - Parent (1) of offspring grown in greenhouse.	Singleton	R. F. Smith	1-73-9
1-10	Thin lens beta-ray spectrometer for Dr. Alburger.	Physics	R. J. Walton	1-74-9 thru 1-80-9
1-6	Pouring concrete for roof.	Cyclotron	R. J. Walton	1-81-9
1-6	Pouring concrete for roof.	Cyclotron	R. J. Walton	1-82-9
1-6	Foundation being set for accelerator project office.	Cosmotron	R. J. Walton	1-83-9
1-6	Construction forms around magnet facing northeast.	Cyclotron	R. J. Walton	1-84-9
1-6	Section of donut foundation.	Cosmotron	R. J. Walton	1-85-9
1-11	Looking up on Ace, south side.	Met	R. F. Smith	1-86-9
1-11	Plotting tables & map display panel.	Met	R. F. Smith	1-87-9
1-11	"Pibal" run, pile in background.	Met	R. F. Smith	1-88-9
1-11	Recorder panel.	Met	R. F. Smith	1-89-9
1-11	Traveler cables to King.	Met	R. F. Smith	1-90-9
1-11	Teletype machines.	Met	R. F. Smith	1-91-9
1-11	Pyroheliometer (instrument used for measuring sun's radiation).	Met	R. F. Smith	1-92-9
1-11	Observer's corner.	Met	R. F. Smith	1-93-9
1-11	Computer's room.	Met	R. F. Smith	1-94-9
1-11	Densitometer repairs.	Met	R. F. Smith	1-95-9
1-11	Tower side - Ace	Met	R. F. Smith	1-96-9
1-11	Meteorology towers building.	Met	R. F. Smith	1-97-9
1-11	Aerovane and thermohm building.	Met	R. F. Smith	1-98-9
1-11	Blower intake.	Met	R. F. Smith	1-99-9
1-11	Boom - 37 foot - Ace	Met	R. F. Smith	1-100-9
1-11	Rear view recorder panel #1.	Met	R. F. Smith	1-101-9
1-11	Entering elevator on Ace.	Met	R. F. Smith	1-102-9
1-11	Boom counterweight.	Met	R. F. Smith	1-103-9
1-11	Smoke analysis.	Met	R. F. Smith	1-104-9
1-11	Dial stand controls.	Met	R. F. Smith	1-105-9
1-11	Three booms on Ace (9'-18'-37').	Met	R. F. Smith	1-106-9
1-13	Proposed reactor face for unclassified research.	Lanahan	H. Maile	1-107-9
1-13	Pile laboratory and building floor plan	Lanahan	H. Maile	1-108-9

Date	Caption	Dept.	Photographer	Number
1-13	Aerial view of cosmotron site.	Cosmotron	R. J. Walton	1-109-9
1-13	Aerial view of cosmotron site.	Cosmotron	R. J. Walton	1-110-9
1-14	Neutron detector arrangement for photography.	Physics	M. H. Bull	1-111-9
1-13	Overall shot of heavy machine shop.	Shops	Smith & Walton	1-112-9
1-13	Overall shot of heavy machine shop.	Shops	Smith & Walton	1-113-9
1-14	Figure 31: Pulse distributions due to cosmic ray mesons.	Physics	M. H. Bull	1-114-9
1-14	A. L. zero multiplace photomicrograph.	Physics	R. F. Smith	1-115-9
1-14	Sigma meson.	Physics	R. F. Smith	1-116-9
1-14	AL 90 multiplane photomicrograph.	Physics	R. F. Smith	1-117-9
1-17	Synoptic weather symbols.	Met	M. H. Bull	1-118-9
1-13	HK Ferguson workman injury. Long shot of pipe with ruler.	HKF	R. J. Walton	1-119-9
1-13	Long shot of lighting facilities.	HKF	R. J. Walton	1-120-9
1-13	Closeup of pipe and ruler.	HKF	R. J. Walton	1-121-9
1-13	Long shot of pipe in relation to floor.	HKF	R. J. Walton	1-122-9
1-14	3/4 view of ceramic section.	Accel	R. J. Walton	1-123-9
1-14	Full face view of ceramic section for vacuum donut on cosmotron.	Accel	R. J. Walton	1-124-9
1-14	Lowering ceramic section for vacuum donut of cosmotron into the pressure tank.	Accel	R. J. Walton	1-125-9
1-14	Broken pieces of ceramic sections for the vacuum donut on cosmotron after being tested in tank.	Accel	R. J. Walton	1-126-9
1-17	Photomicrograph of growth under cover slip of microscope slide, dark field.	Biology	R. F. Smith	1-127-9
1-17	Photomicrograph of growth under cover slip of microscope slide, light field.	Biology	R. F. Smith	1-128-9
1-18	Catalpa trees - mutation on right, absence of chloraphil in center of leaf.	Biology	R. F. Smith	1-129-9
1-18	Men in operating positions in the calibrating laboratory.	Kuper	R. F. Smith	1-130-9
1-18	Calibration laboratory.	Ele	R. F. Smith	1-131-9
1-19	Line drawing (1) reactor (2) trap at dry ice temp (3) trap at dry ice temp (4) gas pipette (5) trap at liquid air temp (6) ballast volume (7) circulating pump (8) ballast volume (9) synthesis gas resevois (10) flow meter.	Chemistry Thompson	Paul Simack	1-132-9

Date	Caption	Dept.	Photographer	Number
1-18	Rubber mat. Dr. Liben.	Accel	R. F. Smith	1-133-9
1-18	Ratemeter - front view in case.	Clareus	R. F. Smith	1-134-9
1-18	Ratemeter - bottom view.	Claerus	R. F. Smith	1-135-9
1-18	Ratemeter - top & back view, case off.	Electronic	R. F. Smith	1-136-9
1-19	View of calibrating lab looking off control balcony, southwest.	Kuper	R. F. Smith	1-137-9
1-19	View of calibrating lab looking off control balcony, west.	Electronic Kuper	R. F. Smith	1-138-9
1-20	Figure 7: Plan view of electrostatic deflecting electrodes for injection at periphery of vacuum chamber.		M. H. Bull	1-139-9
1-20	Figure 11: Movable magnet shield or "peeler" to eject high energy proton beam from cosmotron.		M. H. Bull	1-140-9
1-20	Turbulent and streamline flow.	Bareis	M. H. Bull	1-141-9
1-20	Turbulent flow.	Bareis	M. H. Bull	1-142-9
1-20	Streamline flow.	Bareis	M. H. Bull	1-143-9
1-21	Cyclotron and console.	Cyclotron	M. Herbert	1-144-9
1-20	Continuous air filtering system. (Bernstein & J. B. H. Kuper)	Electronic	R. J. Walton	1-145-9 1-146-9 1-147-9
1-21	Brookhaven National Lab. Guide Map		M. H. Bull	1-148-9
1-21	Camp Upton and Target Range, Site procured for Brookhaven Nat'l Lab.		M. H. Bull	1-149-9
1-21	L. J. Haworth, Director, and Frank Fackenthal, Pres. of A.U.I., with the Atomic Energy Commissioners.		R. F. Smith	1-150-9
1-21	Top view of calibrating lab with operator.	Kuper, Ele	Garfield & Smith	1-151-9
1-24	Change with time in n- value due eddy current.	Accel	Simack & Bull	1-152-9
1-24	Formula.	Accel	Simack & Bull	1-153-9
1-24	Variation with time of H distribution across lamination.	Accel	Simack & Bull	1-154-9
1-24	Size variations: Frequency MC vs Permeability.	Accel	Simack & Bull	1-155-9
1-24	T (Bev) vs R (Meters) Figure 1.	Accel	Simack & Bull	1-156-9
1-24	Ferrite core assembly for proton accelerating transformers.	Accel	Simack & Bull	1-157-9
1-24	Permeability vs frequency.	Accel	Simack & Bull	1-158-9
1-24	Actual N- value (including remanence).	Accel	Simack & Bull	1-159-9
1-24	Size variations - permeability vs frequency MC.	Accel	Simack and Bull	1-160-9

Date	Caption	Dept.	Photographer	Number
1-24	Cross section of "C" magnet and assembly of blocks of 1/2 thick plate.	Accel	Simack & Bull	1-161-9
1-24	Apparent permeability of ferromagnetic torus.	Accel	Simack & Bull	1-162-9
1-24	Time (sec) vs volts vs per turn vs kilogauss per sec.	Accel	Simack & Bull	1-163-9
1-24	Plan view of electrostatic deflecting electrodes for injection at periphery of vacuum chamber.	Accel	Simack & Bull	1-164-9
1-24	Plan view of cosmotron magnet and assembly.	Accel	Simack & Bull	1-165-9
1-24	Quadrant end section 3 Bev cosmotron.	Accel	Simack & Bull	1-166-9
1-25	Movable magnetic shield or "peeler" to eject high energy proton beam from cosmotron.	Accel	Simack & Bull	1-167-9
1-24	Q vs frequency.	Accel	Simack & Bull	1-168-9
1-24	Line cycle of applied voltage and current magnet exciting coils.	Accel	Simack & Bull	1-169-9
1-24	Propagation in infinite sheet of ferrite 1.5 mm thick.	Accel	Simack & Bull	1-170-9
1-24	Loss measurement.	Accel	Simack & Bull	1-171-9
1-24	Building plan and elevation for the laboratory to house the cosmotron.	Accel	Simack & Bull	1-172-9
1-24	Temperature variations.	Accel	Simack & Bull	1-173-9
1-24	Accelerating frequency cycle for cosmotron.	Accel	Simack & Bull	1-174-9
1-24	Field distribution across lamination of magnet.	Accel	Simack & Bull	1-175-9
1-24	Current in winding as a function of time showing rise due to eddy current.	Accel	Simack and Bull	1-176-9
1-24	Control electrodes.	Accel	Simack & Bull	1-177-9
1-24	Magnetic propagation in ferrite transmission line.	Accel	Simack & Bull	1-178-9
1-24	Permeability and dielectric constant vs frequency ferroxcube III.	Accel	Simack & Bull	1-179-9
1-24	First harmonic vs % frequency error.	Accel	Simack & Bull	1-180-9
1-24	Vs lime milliseconds.	Accel	Simack & Bull	1-181-9
1-24	Lines of force in iron lamination of cosmotron magnet computed with the assumption of constant permeability.	Accel	Simack & Bull	1-182-9
1-24	Sutton's image source.	Lowry	M. H. Bull	1-183-9
1-24	Gustiness types.	Lowry	M. H. Bull	1-184-9
1-24	Summary of 360 airplane soundings from 225 to 2000 ft. sea level.	Lowry	M. H. Bull	1-185-9
1-24	Concentration at Z equals Z_0 equals .03h as a function of distance from the source.	Lowry	M. H. Bull	1-186-9
1-24	Concentration in percentage of maximum as a function of height at a fixed distance from source.	Lowry	M. H. Bull	1-187-9
1-24	Elevation of median and mode of Sutton and BNL distributions with distance from the source.	Lowry	M. H. Bull	1-188-9

Date	Caption	Dept.	Photographer	Number
1-24	Composite negative of Type A-B-C-D.	Lowry	M. H. Bull	1-189-9
1-24	Equations for solutions of the median and the mode.	Lowry	M. H. Bull	1-190-9
1-24	Equations for solutions of median height and mode height.	Lowry	M. H. Bull	1-191-9
1-24	Formulae and Graph E equals 0 to E equals 20.	Scott North- hampton	Paul Simack	1-192-9 thru 1-197-9
1-25	Delayed coincidences in 500 hours. Delay (microsec.).	Piccioni	M. H. Bull	1-198-9
1-25	Ratio: Delayed coincidence with graphite. Delayed coincidence with sulphur.	Piccioni	M. H. Bull	1-199-9
1-25	Normal (Single) Particle / Hours. Hard Shower / Hours.	Piccioni	M. H. Bull	1-200-9
1-25	Delayed - Lead - Aluminum Graphite or Sulphur Delayed.	Piccioni	M. H. Bull	1-201-9
1-25	Power supply alternate.	Accel	M. H. Bull	1-202-9
1-25	All steps 0.0028"	Accel	M. H. Bull	1-203-9
1-25	Radius (inches) in front of coil.	Accel	M. H. Bull	1-204-9
1-25	Radius (inches) in front of coil. End of gap.	Accel	M. H. Bull	1-205-9
1-25	Filled at center of number three. 4000 gauss approximately.	Accel	M. H. Bull	1-206-9
1-25	Time - milliseconds.	Accel	M. H. Bull	1-207-9
1-25	Smoke densitometer showing lite trap.	Met	R. F. Smith	1-208-9
1-25	Showing perture in tube.	Met	R. F. Smith	1-209-9
1-25	Rear view.	Met	R. F. Smith	1-210-9
1-25	Breakdown of parts.	Met	R. F. Smith	1-211-9
1-25	Front view.	Met	R. F. Smith	1-212-9
1-25	Back view - cover off.	Met	R. F. Smith	1-213-9
1-25	Barium, discharge to hind gut. (From Bowen's report).	Lipitz	M. H. Bull	1-214-9
1-25	A-X-O-S-8	Meyer	M. H. Bull	1-215-9
1-25	M vs P2(m)	Meyer	M. H. Bull	1-216-9
1-25	M vs P3(m)	Meyer	M. H. Bull	1-217-9
1-25	M vs P1(m)	Meyer	M. H. Bull	1-218-9
1-25	16 Q - 1/3 w.	Meyer	M. H. Bull	1-219-9
1-26	Cosmotron drawing.	Cosmotron	M. H. Bull	1-220-9
	NO NEGATIVE			1-221-9
1-26	Time in minutes, resistance in ohms, time in seconds.	Met	M. H. Bull	1-222-9
1-26	Cosmotron drawing.	Cosmotron	M. H. Bull	1-223-9

Date	Caption	Dept.	Photographer	Number
1-26	Grounds progress and maintenance.	Grounds	E. J. Hunter	1-224-9 thru 1-239-9
1-26	Exterior of monitoring station.	Monsta	R. J. Walton	1-240-9
1-26	Interior of monitoring station.	Monsta	R. J. Walton	1-241-9
1-26	Interior of monitoring station.	Monsta	R. J. Walton	1-242-9
1-26	Monitoring board.	HPhysics	R. J. Walton	1-243-9
1-26	D. German at 16 mm board reader.	HPhysics	R. J. Walton	1-244-9
1-31	E. Foster, Electronics	Portrait	J. F. Garfield	1-245-9
1-31	E. Foster, Electronics	Portrait	J. F. Garfield	1-246-9
1-26	Dot German, technician, analyzing film record data of radiation measure- ment taken at one of the background monitoring stations.	HPhysics	R. J. Walton	1-247-9
1-17	Slide # A651-F-F E59	Sparrow Biology	R. F. Smith	1-248-9 ⁷
1-17	Slide # A 672 B E96	"	"	1-249-9 ⁸
1-24	Slide # A 651-HH	"	"	1-250-9 ⁹
1-24	Slide # A 197 A-E E112	"	"	1-251-9 ¹⁰
1-24	Slide # A 197 A-E E118	"	"	1-252-9 ¹¹
1-24	Slide # A 197 A-D E110	"	"	1-253-9 ¹²
1-24	Slide # A 197A-C E119	"	"	1-254-9 ¹³
1-24	Slide # A 197 A-B E111	"	"	1-255-9 ¹⁴
1-24	Slide # A 197A-A E117	"	"	1-256-9 ¹⁵
1-31	Slide # A 197A-A E116	"	"	1-257-9
1-31	Slide # A 603R E115	"	"	1-258-9 ¹⁶
1-31	Slide # A 1453-O E114	"	"	1-259-9 ¹⁷
1-31	Slide # A 802E E113	"	"	1-260-9 ¹⁸

February

Date	Caption	Dept.	Photographer	Number
2-1	Gross photo of welded sections from duct of pile.	Kammerer	R. F. Smith	2-1-9
2-1	Macro photo of weld from sections of pile duct.			2-2-9
	Metallographic department.	Kammerer	R. F. Smith	thru 2-5-9
2-1	Life and Half Life stage sets.			
	Act 1 Scene 1	Recrea	R. F. Smith	2-6-9
2-1	Act 1 Scene 2	Recrea	R. F. Smith	2-7-9
2-1	Act 2 Scene 2	Recrea	R. F. Smith	2-8-9
2-1	Pile laboratory and pile building floor plan.	Pile	M. H. Bull	2-9-9
2-1	Age in days	Gibbs	M. H. Bull	2-10-9
2-1	Age in days.	Gibbs	M. H. Bull	2-11-9
2-1	Leaf number.	Gibbs	M. H. Bull	2-12-9
2-1	Age in days.	Gibbs	M. H. Bull	2-13-9
2-1	Leaf number.	Gibbs	M. H. Bull	2-14-9
2-1	Leaf number.	Gibbs	M. H. Bull	2-15-9
2-1	Leaf number.	Gibbs	M. H. Bull	2-16-9
2-1	Age in days.	Gibbs	M. H. Bull	2-17-9
2-1	Age in days.	Gibbs	M. H. Bull	2-18-9
2-1	Leaf number.	Gibbs	M. H. Bull	2-19-9
2-1	Leaf number.	Gibbs	M. H. Bull	2-20-9
2-1	Age in days.	Gibbs	M. H. Bull	2-21-9
2-1	Age in days.	Gibbs	M. H. Bull	2-22-9
2-1	Leaf number.	Gibbs	M. H. Bull	2-23-9
2-2	Four bed hospital ward showing half of room.	Medical	R. F. Smith	2-24-9
2-1	Exterior of monitoring station at ammo dump.	Monsta	R. F. Smith	2-25-9
2-1	Closeup of recording panel.	Met	R. J. Walton	2-26-9
2-1	Overall of recording panel.	Met	R. J. Walton	2-27-9

Date	Caption	Dept.	Photographer	Number
2-3	Overall of recording panel.	Met	M. H. Bull	2-29-9
2-3	Closeup of recording panel.	Met	M. H. Bull	2-30-9
2-4	AUI organization chart - Jan. 1, 1949		M. H. Bull	2-31-9
2-4	Photomacrograph of welded section of pile duct.	Kammerer	R. F. Smith	2-32-9
2-4	Photomacrograph of welded section of pile duct.	Kammerer	R. F. Smith	2-33-9
2-7	Vertical wind indicator.	Met	R. J. Walton	2-34-9
2-7	Overall view of pile building model.	Pile	R. F. Smith	2-35-9
2-7	Closeup view of pile building model.	Pile	R. F. Smith	2-36-9
2-8	Night shot of greenhouse with lights on.	Biology	R. F. Smith	2-37-9
2-9	Wind direction chart and recording instrument.	Met	R. J. Walton	2-38-9
2-9	This shows what may be interpreted as an elastic collision between a particle of mass about ten times that of an electron and an electron in the gas of a cloud chamber.	O'Neil	Paul Simack	2-39-9
2-9	First knock-on collision.	O'Neil	Paul Simack	2-40-9
2-9	Second knock-on collision.	O'Neil	Paul Simack	2-41-9
	Two particles passing thru a lead plate 2.3 cm in thickness placed across the chamber.	O'Neil	Paul Simack	2-41-9
	(2-39-9 and 2-40-9 on page 534 of Science, November 12, 1948) (2-41-9 on page 143 of Nature, Vol. 155 January-June 1945)			
2-10	Copy made from pix by Charles E. Grover of Denver, Colorado showing the BNL trailer on location at Berthaud Pass at elevation of 11,315 ft. for cosmic ray work.	Piccioni	Paul Simack	2-42-9
2-10	Cosmic ray apparatus in trailer at Berthaud Pass, Colorado.	Piccioni	Paul Simack	2-43-9
2-10	Trailer on location at Berthaud Pass.	Piccioni	Paul Simack	2-44-9

Date	Caption	Dept.	Photographer	Number
2-10	Plants in greenhouse.	Biology	R. J. Walton	2-45-9
2-10	Plants in greenhouse.	Biology	R. J. Walton	2-46-9
2-9	Moving part of cloud chamber into the laboratory in T-117.	Cloud Chamber	R. F. Smith	2-47-9
2-11	Metallographs			
	Figure 6-7-8-9-10/50X and 11/250X.	Kammerer	M. H. Bull	2-48-9
2-11	Metallographs			
	Figure 12-12-14-14/250X.	Kammerer	M. H. Bull	2-49-9
2-11	Molecule model for Norman Elliott.	Chemistry	M. H. Bull	2-50-9
2-11	Molecule model for Norman Elliott.	Chemistry	M. H. Bull	2-51-9
2-11	Foundation for high pressure cloud chamber.	Cloud Chamber	R. F. Smith	2-52-9
2-11	Cloud chamber magnet being unloaded.	Cloud Chamber	R. F. Smith	2-53-9
2-14	Various views of recording panel.	Met	Mazzarella.	2-54-9 thru 2-59-9
2-14	What a nuclear power plant might look like in New York City.	Beers	Paul Simack	2-60-9
2-14	Comparison between nuclear and other energy sources.	Beers	Paul Simack	2-61-9
2-14	Schematic representation of advantages of nuclear energy over chemical energy.	Beers	Paul Simack	2-62-9
2-14	Complex system upon which nuclear power plant depends for operation.	Beers	Paul Simack	2-63-9
2-14	Three views of the wrecked automobile in the repair shop after the Kallman accident.	Bergin	R. J. Walton	2-64-9 2-65-9 2-66-9
2-14	Installing magnet in cloud chamber laboratory in T-117.	Cloud Chamber	R. J. Walton	2-67-9 and 2-68-9
2-14	Photomicrographs of trillium pollen mother cells (different stages of meiosis). Fixation: Formalin, lanthanum, acetate.	Moses	R. F. Smith	2-69-9 thru 2-80-9

Date	Caption	Dept.	Photographer	Number
2-15	Smoke shots cloud formations miscellaneous.	Met	Mazarella	2-81-9 thru 2-95-9
2-16	Magnetic susceptibility of:	Elliott	M. H. Bull	
xx	UC/4	Elliott	M. H. Bull	2-96-9
xx	K ₃ UF ₇	Elliott	M. H. Bull	2-97-9
xx	UF ₄	Elliott	M. H. Bull	2-98-9
2-16	K ₂ UF ₆	Elliott	M. H. Bull	2-99-9
xx	U(SO ₄) ₂	Elliott	M. H. Bull	2-100-9
xx	KUF ₅	Elliott	M. H. Bull	2-101-9
xx	UO ₂	Elliott	M. H. Bull	2-102-9
xx	U(C ₂ O ₄) ₂ 5H ₂ O	Elliott	M. H. Bull	2-103-9
xx	CaUF ₆	Elliott	M. H. Bull	2-104-9
xx	NO ₃ UF ₇	Elliott	M. H. Bull	2-105-9
xx	Magnetic susceptibility of: UO ₂	Elliott	M. H. Bull	2-106-9
2-16	Photomicrographs of trillium pollen mother cells (different stages of meiosis). Fixation: Formalin, lanthanum, acetate. (Control).	Moses	R. F. Smith	2-107-9 thru 2-124-9
2-17			M. H. Bull	2-125-9
2-17			M. H. Bull	2-126-9
2-17			M. H. Bull	2-127-9
2-17			M. H. Bull	2-128-9
2-18	Table 8 - Cost of nuclear power.	Puleston	Darkroom	2-129-9
2-18	Table 7 - Estimated cost of complete nuclear power plant.	Puleston	Darkroom	2-130-9
2-18	Table 6 - Slow neutron cross sections of light elements.	Puleston	Darkroom	2-131-9
2-18	Table 5 - Slow neutron cross sections of structural materials.	Puleston	Darkroom	2-132-9
2-18	Table 4 - Slow neutron cross sections of possible coolant elements.	Puleston	Darkroom	2-133-9
2-18	Table 3 - Years world uranium supply would last if it could be used completely in various ways.	Puleston	Darkroom	2-134-9
2-18	Table 2 - Reserves of various fuels.	Puleston	Darkroom	2-135-9
2-18	Table 1 - Relative abundance of various elements.	Puleston	Darkroom	2-136-9
2-18	Slide A - Nuclear Reactions.	Puleston	Darkroom	2-137-9
2-18	30 prong star.	Salant	R. F. Smith	2-138-9
2-18	House in St. James, near Gaynor Park.			2-139-9 2-140-9 2-141-9
		Housing	J. F. Garfield	

Date	Caption	Dept.	Photographer	Number
2-17	Overall shot of waste disposal evaporator unit showing control and instrument panel.	Reactor	R. J. Walton	2-142-9
2-17	Control and instrument panel for the waste disposal evaporator.	Reactor	R. J. Walton	2-143-9
2-17	Boiler for waste disposal unit showing viewing part.	Reactor	R. J. Walton	2-144-9
2-17	Boiler for the waste disposal evaporator.	Reactor	R. J. Walton	2-145-9
2-17	Condensor for waste disposal evaporator set in just below the roof of the building.	Reactor	R. J. Walton	2-146-9
2-21	By-directional balloon test. U. S. Weather Bureau Experimental.	Met	M. H. Bull	2-147-9 and 2-148-9
2-21	Taken from the smokestack.	Osborne	C. Osborne	2-149-9 thru 2-156-9
2-23	Film Pack Number Three <i>2-164-9</i> Meteorology <i>cleaned for pub.</i> Smoke run.	Met	M. H. Bull	2-157-9 thru 2-168-9
2-23	Cracked strut on small tower.	Met	R. F. Smith	2-169-9
2-23	Unretouched 38 prong star.	Salant	R. F. Smith	2-170-9
2-23	Model pump made of brass and lucite. (Closeup of top.)	Selvin	R. F. Smith	2-171-9
2-23	Overall view of model pump.	Selvin	R. F. Smith	2-172-9
2-23	Photomicrographs of trillium pollen mother cells (different stages of meiosis. Dr. Moses, Biology	Moses	R. F. Smith	2-173-9 thru 2-182-9
2-23	Film Pack Number One Smoke run (Deleted 2-189-9)	Met	M. H. Bull	2-183-9 thru 2-191-9

Date	Caption	Dept.	Photographer	Number
2-23	Atomic power plant to be built at Oak Ridge will look something like this inside its building.	Puleston	M. H. Bull	2-192-9
2-23	Nuclear Reactor - Uranium pile.	Puleston	M. H. Bull	2-193-9
2-24	Meteorology Smoke run <i>2-196-9</i> Film Pack #2	Met	M. H. Bull	2-194-9 thru 2-204-9
2-24	Grounds Roads Maintenance.	Grounds Maint.	E. J. Hunter	2-205-9 thru 2-220-9
2-24	Wave length in microns. Propane D-1.	Friedman	Paul Simack	2-221-9
2-24	Gerhart Friedlander	Portrait	R. F. Smith	2-222-9
2-24	Photomicrograph of corn grass chromosomes. Mag. 1000X.	Singleton	R. F. Smith	2-223-9
2-24	Photomicrograph of corn grass. Mag. 1000X.	Sigleton	R. F. Smith	2-224-9
2-24	Photomicrograph of corn grass chromosomes. Mag. 1000X.	Singleton	R. F. Smith	2-225-9
2-24	Photomicrograph of corn grass chromosomes. Mag. 1000X.	Singleton	R. F. Smith	2-226-9
2-24	Photomicrograph of corn grass chromosomes. Mag. 1000X.	Singleton	R. F. Smith	2-227-9
2-25	Dr. Jacob Sachs, Biology	Portrait	J. F. Garfield	2-228-9
2-24	Cyclotron progress facing northeast.	Cyclotron	R. J. Walton	2-229-9
2-25	Meteorology Smoke Recording Panel.	Met	Meteorology	2-230-9 thru 2-237-9
2-25	Artist's sketch (H. Wright) of the pile building.	Pile	M. H. Bull	2-238-9

Date	Caption	Dept.	Photographer	Number
2-23	Slide # A 1983-A E121	Sparrow Biology	R. F. Smith	2-239-9
2-23	Slide # X 1983-A-B E120	"	"	2-240-9
2-23	Slide # 1991A-A E124	"	"	2-241-9
2-23	Slide # 1991A-B E123	"	"	2-242-9
2-23	Slide # 1991A-C E122	"	"	2-243-9
2-3	Slide # A 557-G E98	"	"	2-244-9

March

Date	Caption	Dept.	Photographer	Number
3-1	Saturation backscattering factor as a function of atomic number of backing material.	Burt	Darkroom	3-1-9
3-1	Ratio of counting rates of two samples mounted on backings infinitely thick for backscattering vs distance between source and counter window.	Burt	Darkroom	3-2-9
3-1	Saturation backscattering as a function of maximum beta energy for several backing materials.	Burt	Darkroom	3-3-9
3-1	Backscattering factor as a function of distance from the source to the counter.	Burt	Darkroom	3-4-9
3-1	Absorption curves of radium e beta radiation extrapolated to zero absorber.	Burt	Darkroom	3-5-9
3-1	Decay of RaE and growth of RaF for sample 22.	Burt	Darkroom	3-6-9
3-1	Preparation of zapon films.	Burt	Darkroom	3-7-9
3-1	Counter assembly.	Burt	Darkroom	3-8-9
3-1	Preparation of zapon films.	Burt	Darkroom	3-9-9
3-1	Counting rate as a function of lateral displacement of sample on shelves one and two.	Burt	Darkroom	3-10-9
3-1	Observed counts per minute (RaE) as function of distance from source to counter.	Burt	Darkroom	3-11-9
3-1	Calculated geometry vs distance from center window efficiency corrected for absorption and scattering vs distance from window.	Burt	Darkroom	3-12-9
3-1	Assembly for electrolytic deposition of RaE.	Burt	Darkroom	3-13-9
3-1	Bubbler for stirring Ag powder in RaE solution.	Burt	Darkroom	3-14-9
3-1	Counting of RaE sources on thin zapon films.	Burt	Darkroom	3-15-9
3-1	Equipment diagram.	Burt	Darkroom	3-16-9
3-2	National expenditures for Atomic Energy.		R. J. Walton	3-17-9
3-2	Series of pics showing the use of the fire blanket. J. Hannoch	Safety	R. F. Smith	3-18-9 thru 3-27-9
3-4	Meteorology Smoke Run	Met	Meteorology	3-28-9 thru 3-43-9

Date	Caption	Dept.	Photographer	Number
3-4	Chart - Max Energy (Mev) Mean Energy (Mev) R in Al (gm/cm)	Bernstein	Darkroom	3-44-9
3-4	Chart - H. V. Counter	Bernstein	Darkroom	3-45-9
3-4	Counts per minute.	Bernstein	Darkroom	3-46-9
3-4	Energy in mev.	Bernstein	Darkroom	3-47-9
3-4	Anode - Cathode	Bernstein	Darkroom	3-48-9
3-4	Preamplifier gain control and loop.	Bernstein	Darkroom	3-49-9
3-4	Chart - VT 1-2-3-4-5	Bernstein	Darkroom	3-50-9
3-4	E (in Kev).	Bernstein	Darkroom	3-51-9
3-4	Amplification factor - cylinder voltage.	Bernstein	Darkroom	3-52-9
3-4	Chart - VT 8 to 17.	Bernstein	Darkroom	3-53-9
3-3	Transferred to Private.			3-54-9
3-3	Transferred to Private.			3-55-9
3-3	Transferred to Private.			3-56-9
3-3	Transferred to Private.			3-57-9
3-4	Three views Power supply unit Electronics.	C Porter	R. J. Walton	3-58-9 3-59-9 3-60-9
3-4	Julius Hanocho - Safety.	Portrait	R. J. Walton	3-61-9
3-8	Meteorology smoke run.	Met	Meteorology	3-62-9 thru 3-77-9
3-8	Copy of a cloud chamber showing an errant meson (Madam Meson).	Cloud Chamber	R. J. Walton	3-78-9
3-8	Corn mutations R-r, Pr P39xC23 Pr P51XC27 and C23 - general shot.	Singleton	R. F. Smith	3-79-9
3-8	Multiple corn mutation R-r Pr P39xC23 - closeup.	Singleton	R. F. Smith	3-80-9
3-8	Copy of General Electric Research Laboratory Chart of the Isotopes.	Hartzell	M. H. Bull	3-81-9

Date	Caption	Dept.	Photographer	Number
3-9	Isotope effect in the rupture of carbon-carbon bonds in malonic acids. Comparison of experimental and theoretical equilibrium constants for isotope exchange reactions.	Bigeleisen	M. H. Bull	3-82-9
3-9		Bigeleisen	M. H. Bull	3-83-9
3-9	Wave numbers in cm^{-1} 1000	Thompson Chemistry	M. H. Bull	
	Wave length in microns			
	Percent transmission			
xx	Infra-red spectrum of deuterio methane Fischer-Tropsch Synthesis, Nov. 18, 1948, Run 10.			3-84-9
xx	Infra-red spectrum of methane CP.			3-85-9
xx	Ethylene 11/24/48.			3-86-9
xx	Deutero ethane. Fischer-Tropsch Synthesis 1/19/49.			3-87-9
xx	Deutero propane - deutero propylene mixture. Fischer-Tropsch Synthesis 1/13/49.			3-88-9
xx	Infra-red spectrum of hydrocarbon liquid product. Fischer-Tropsch process, June 18, 1948.			3-89-9
xx	Ethane February 28, 1949.			3-90-9
xx	Butene - 1 July 8, 1948.			3-91-9
xx	Deutero ethane - deutero ethylene mixture. Fischer-Tropsch Synthesis January 17, 1949.			3-92-9
xx	Deutero ethane. Fischer-Tropsch Synthesis. Deuteration of C_2 product 2/28/49.			3-93-9
xx	Deutero propane, 3/3/49.			3-94-9
xx	Infra-red spectrum of saturated and unsaturated deutero carbon gas products. Deutero gas product. Fischer-Tropsch Syntheses. November 24 Run 10			3-95-9
xx	Propane			3-96-9
xx	Butane 6/23/48.			3-97-9
3-9	Console (This replaced 12-51-8)	Powell	M. H. Bull	3-98-9
3-10	Magnetic time of flight mass spectrometer. Scale/approx. 1 mass unit 1 microsec.	Goudsmit	M. H. Bull	3-99-9
3-10	B-29 for Cosmic Ray Research-closeup	Lehr	J. F. Garfield	3-100-9
3-10	B-29 for Cosmic Ray Research-Full	Lehr	J. F. Garfield	3-101-9
3-10	Interior of B-29 for Cosmic Ray Research.			3-102-9
		Lehr	J. F. Garfield	thru 3-108-9

Date	Caption	Dept.	Photographer	Number
3-9	Electro-magnetic pump.	Hansteen	R. J. Walton	3-109-9
3-9	Electro-magnetic pump.	Hansteen	R. J. Walton	3-110-9
3-10	Interior showing magnet.	Cyclo	R. J. Walton	3-111-9
3-11	E. L. Nicholson	Portrait	J. F. Garfield	3-112-9
3-11	George Stoneman	Portrait	J. F. Garfield	3-113-9
3-14	Seene of accident showing damage.	Grnds Maint.	E. J. Hunter	3-114-9 thru 3-119-9
3-15	L. J. Haworth	Portrait	J. F. Garfield	3-120-9
3-15	L. J. Haworth	Portrait	J. F. Garfield	3-121-9
3-15	L. J. Haworth	Portrait	J. F. Garfield	3-122-9
3-15	L. J. Haworth	Portrait	J. F. Garfield	3-123-9
3-15	Guest house exterior.	MacCornak	J. F. Garfield	3-124-9
3-15	Approach to guest house.	MacCornak	J. F. Garfield	3-125-9
3-15	Approach to guest house.	MacCornak	J. F. Garfield	3-126-9
3-15	Approach to guest house.	MacCornak	J. F. Garfield	3-127-9
3-15	Long shot of guest house exterior.	MacCornak	J. F. Garfield	3-128-9
3-15	Exterior of guest house.	MacCornak	J. F. Garfield	3-129-9
3-15	Development of a fairly large shower.	Whittmore	Darkroom	3-130-9
3-15	Occasionally very large showers are incident from above. It is a striking fact that many of these do not appear to diverge from any point in the roof or other nearby material. The shower development has evidently taken place in the air.	Whittmore	Darkroom	3-131-9
	(These were taken from "Cloud Chamber Studies of Cosmic Ray Showers and Penetrating Particles".)			
3-15	Diagram equipment.	Gibbs	Darkroom	3-132-9
3-15	Equations from article "The Dark Reductions of Photosyntheses" from Science, June 20, 1947.	Gibbs	Darkroom	3-133-9
3-15	C14 radiograms of 80% ethanol extracts of Algae 1,2 from Science February 11, 1949.	Gibbs	Darkroom	3-134-9

Date	Caption	Dept.	Photographer	Number
3-15	Radioautographs of a tomato show how the plant utilizes tiny amounts of zinc. From Scientific American, February 1949.	Gibbs	Darkroom	3-135-9
3-16	Argonne National Laboratory, Photo 36	Hartzell	A. Lasky	3-136-9
3-16	Popular Science Monthly showing "Mechanical Hands".	Hartzell	A. Lasky	3-137-9
3-16	The rabbit shown here has been injected in the abdominal cavity with a small quantity of radium. This photo, taken 423 days later, shows a large malignant bone tumor which developed on the lower jaw.	Hartzell	A. Lasky	3-138-9
3-16	A view of the south face of the uranium chain-reacting pile. Radioactive materials are being monitored. USAEC Public Information.	Hartzell	A. Lasky	3-139-9
3-16	O. C. Sweet Newsweek photo of Albert Einstein.	Hartzell	A. Lasky	3-140-9
3-16	Mechanical Hands.	Hartzell	A. Lasky	3-141-9
3-16	Fermentation apparatus.	Gibbs	Darkroom	3-142-9
3-16	Chemically powered aircraft.	Garth	A. Lasky	3-143-9
3-16	Plutonium process	Garth	A. Lasky	3-144-9
3-16	Uranium 235 process.	Garth	A. Lasky	3-145-9
3-16	Estimated U. S. reserves of fissionable materials.	Garth	A. Lasky	3-146-9
3-16	Figure 17-4 rocket.	Garth	A. Lasky	3-147-9
3-16	Schematic diagram of the mass spectrometer.	Garth	A. Lasky	3-148-9
3-16	Nuclear power room, etc.	Garth	A. Lasky	3-149-9
3-18	Copy negatives for Norman Beers	Meteorology	M. H. Bull	3-150-9 3-151-9
3-17	Mass spectrometer.	Goudsmit	R. J. Walton	3-152-9
3-17	Paul Richards with mass spectrometer.	Goudsmit	R. J. Walton	3-153-9
3-21	Transformations of products of dark fixation of carbon dioxide.	Gibbs	M. H. Bull	3-154-9
3-21	Time course of dark fixation of tracer carbon dioxide in air and in nitrogen.	Gibbs	M. H. Bull	3-155-9

Date	Caption	Dept.	Photographer	Number
3-21	Time course of tracer distribution during photosynthesis. (3-154-155-156-9 were taken from "Assimilation of Tracer Carbon in the Scenedesmus".)	Gibbs	M. H. Bull	3-156-9
3-21	Carbon tetrachloride retention in benzene.	Dodson	Darkroom	3-157-9
3-21	Carbon tetrachloride retention in cyclohexane.	Dodson	Darkroom	3-158-9
3-21	Bhlman and Willard Jacs 64 1342 (1942)	Dodson	Darkroom	3-159-9
3-21	Case IV, III, II.	Dodson	Darkroom	3-160-9
3-18	Tube sealing and cutting tool. Close-up of head showing cutting head in place.	Selvin	R. J. Walton	3-161-9
3-18	Tube sealing and cutting tool. Close-up of head showing tube in cutting position.	Selvin	R. J. Walton	3-162-9
3-18	Tube cutting and sealing tool showing control handles.	Selvin	R. J. Walton	3-163-9
3-18	Tube sealing and cutting tool. Close-up of head showing heating elements.	Selvin	R. J. Walton	3-164-9
3-21	Illustration of the phase shift in nuclear scattering and the corresponding positive and negative scattering.	McReynolds	Darkroom	3-165-9
3-21	Neutron powder diffraction patterns taken with samples of ordered and disordered preparation of Fe-Co alloy.	McReynolds	Darkroom	3-166-9
3-21	Photographs taken with NaCl, Be, quartz and Mg.	McReynolds	Darkroom	3-167-9
3-21	Schematic diagram of powder diffraction apparatus in use at Oak Ridge.	McReynolds	Darkroom	3-168-9
3-21	Schematic diagram of Laue camera for obtaining neutron diffraction pattern.	McReynolds	Darkroom	3-169-9
3-21	Spectrum of reactor as measured with LiF (100).	McReynolds	Darkroom	3-170-9
3-21	Typical neutron diffraction powder patterns for diamond and aluminum.	McReynolds	Darkroom	3-171-9
3-21	Cosmotron drawing.	Cosmotron	Darkroom	3-172-9
3-21	Three pieces of plastic hose. Before, sealed, sealed and cut.	Selvin	R. J. Walton	3-173-9

Date	Caption	Dept.	Photographer	Number
3-22	Ion source - detector.	Richards	M. H. Bull	3-174-9
3-22	600-1200 gauss.	Richards	M. H. Bull	3-175-9
3-22	Dr. Robert Steele's air conditioned mouse chamber. Dr. Steele at chamber which houses the mouse cells where the mouse is fed radioactive materials and the metabolism of the animal is checked.	Biology	R. F. Smith	3-176-9
3-22	Dr. Steele at mouse cell adjusting pressure.	Biology	R. F. Smith	3-177-9
3-22	Air conditioned chamber which houses mouse cells showing control cell at left.	Biology	R. F. Smith	3-178-9
3-22	Closeup of mouse cell showing mouse eating radioactive sucrose.	Biology	R. F. Smith	3-179-9
3-22	Macrophotograph of foraminiferer. 35X	Geology	R. F. Smith	3-180-9
3-22	Photomicrograph of foraminiferer. Neg. 90X - Print 210.	Geology	R. F. Smith	3-181-9
3-22	Seal off here after excavating and filling with argon and alchol mixture.	Higinboth	M. H. Bull	3-182-9
3-23	Apartment 4B fire damage.	Fire dept.	R. F. Smith	3-183-9 thru 3-188-9
3-24	Abb. 18 Verteilung der impulsgrossen (energieverteilung der L Strahlung).	Salant	M. H. Bull	3-189-9
3-24	Abb. 14 Im CDS absorbierte Tontgenintensitat als funktion des Abstandes von Brennfleck.	Salant.	M. H. Bull	3-190-9
3-24	Abb. 20 Zusammenhang zwischen impuls-grosse und absorbierte energie in es L-Teilchens.	Salant	M. H. Bull	3-191-9
3-24	Abb. 12 Zuitlicher verlauf des Leit-vermogen nach Beendigung der Erregung.	Salant	M. H. Bull	3-192-9
3-24	Abb. 11 Strom-Spannungs-Charateris-tiken von CDS-Kristallen.	Salant	M. H. Bull	3-193-9
3-24	Abb. 8 Zusammenhang zwischen Leuch-tvermogen und Leitfahigkeit.	Salant	M. H. Bull	3-194-9
3-24	Abb. 15 Zusammenhang zwischen Strom und absorbierte Rontgenenergie.	Salant	M. H. Bull	3-195-9
3-24	Abb. 13 Gemesenne Rontgenintensitat als funktion abstandes von Brennfleck.	Salant	M. H. Bull	3-196-9

Date	Caption	Dept.	Photographer	Number
3-24	Tabelle 3 - Leitvermogen (Verstark- erwirung) der CDS-Kristalle bei, etc.	Salant	M. H. Bull	3-197-9
3-24	Zeit in minuten.	Salant	M. H. Bull	3-198-9
3-24	Time of death of adrenal ectomized animals. A- No irradiation. B- 650r whole body irradiation. Figure 1.	Edelman	M. H. Bull	3-199-9
3-25	Particle track photomicrograph.	Salant	R. F. Smith	3-200-9
3-25	75 ft. proton synchrotron.		M. H. Bull	3-201-9
3-25	Heidt-Smith mechanism (chart).	HCThomas	M. H. Bull	3-202-9
3-25	Heidt-Smith mechanism (formula).	Thomas	M. H. Bull	3-203-9
3-25	Experimental results according to empirical equation.	Thomas	M. H. Bull	3-204-9
3-28	Meteorology buildings and equipment.	Meteorol	Meteorology	3-205-9 thru 3-212-9
3-29	Figure 2 - Nuclear disintegration in which a heavy particle penetrating three films is emitted. The separate mosaics are sections of the tracks in three successive films. Observers: D. H. Perkins.	Hoke	A. Lasky	3-213-9
3-29	Figure 1 - Complete disintegration of a bromine nucleus, with emission of a heavy fragment of Z equals $11 \neq 1$ e. Observer: Miss J. Steward.	Hoke	A. Lasky	3-214-9
3-30	Copy negative.	Teitel	Paul Simack	3-215-9
3-30	Figure 1-2-3-4.	MacCor- kindale	Paul Simack	3-216-9
3-30	Figure 1 - Plastic tube sealer and cutter.	Selvin	Paul Simack	3-217-9

Date	Caption	Dept.	Photographer	Number
3-21	Meteorology and equipment.	Met	Meteorology	3-218-9 3-219-9 3-220-9
3-31	Counters showing numbers.	Weiss	R. J. Walton	3-221-9
3-31	Biology map of Long Island.	White	A. Lasky	3-222-9
3-28	Concrete sample for testing in the Huller Labs, Plainfield, New Jersey.	Fox	R. F. Smith	3-223-9
3-28	Test equipment at Huller Labs, Plainfield, New Jersey.	Fox	R. F. Smith	3-224-9
3-28	Testing equipment at Huller Labs, Plainfield, New Jersey.	Fox	R. F. Smith	3-225-9
3-28	Testing machines at Huller Labs, Plainfield, New Jersey.	Fox	R. F. Smith	3-226-9
3-2	Slide # A 1910B-A E132	Sparrow	R. F. Smith	3-227-9
3-2	Slide # A 1910B-B	"	"	3-228-9
3-2	Slide # 2093L-D E128	"	"	3-229-9
3-2	Slide # 2093L-G E138	"	"	3-230-9
3-2	Slide # 2093L-K E136	"	"	3-231-9
3-2	Slide # 2093-L-C E127	"	"	3-232-9
3-2	Slide # 2093L-H Extra 127	"	"	3-233-9
3-2	Slide # 2093-L-A E125	"	"	3-234-9
3-2	Slide # 2093-L-B E126	"	"	3-235-9
3-2	Slide # A 2093A-B E131	"	"	3-236-9
3-2	Slide # A 2093 A-A E133	"	"	3-237-9
3-2	Slide # 2093 L-L E137	"	"	3-238-9
3-2	Slide # 2093 IG E135	"	"	3-239-9
3-2	Slide # 2093 L-E E129	"	"	3-240-9
3-2	Slide # 2093 L-I E134	"	"	3-241-9
3-2	Slide # 2093 L-F E130	"	"	3-242-9
3-4	Slide # 2093 B B E139	"	"	3-243-9

April

Date	Caption	Dept.	Photographer	Number
4-4	Minimum ionization tracks.	Salant	R. F. Smith	4-1-9 thru 4-4-9
4-5	Destruction of nucleus by a primary cosmic ray can result in the creation of any of the known subatomic particles.	Kelleher	A. Lasky	4-5-9
4-5	Action of cosmic rays is illustrated by typical example shown at right of schematic drawing (etc.).	Kelleher	A. Lasky	4-6-9
4-5	Total thickness of absorber (window, air and al) in mg/cm ² .	Burt	A. Lasky	4-7-9
4-6	Unique features of BNL new atomic pile are brought out in this sketch. <i>(from Pop. Sci.)</i>		M. H. Bull	4-8-9
4-5	David Lilienthal at Brookhaven Nat. Laboratory.		R. F. Smith	4-9-9
4-5	Radio phosphorous breeding.	Hansteen	P. Simack	4-10-9
4-5	Exterior facing southwest.	Cyclotron	R. J. Walton	4-11-9
4-5	Exterior facing northeast.	Cyclotron	R. J. Walton	4-12-9
4-5	Exterior facing southwest.	Cyclotron	R. J. Walton	4-13-9
4-5	Exterior facing northwest.	Cyclotron	R. J. Walton	4-14-9
	Information Division, Radiation Lab., University of California, Berkley, California.			
4-5	Building model of bevatron with crane and magnet. (Note man for scale.)	U of Calif	M. H. Bull	4-15-9
4-5	Van de Graaff generator (Lin. Acc.).	U of Calif	M. H. Bull	4-16-9
4-5	Dr. Edwin MacMillan at synchrotron magnet.	U of Calif	M. H. Bull	4-17-9
4-5	Linac line (inside shot).	U of Calif	M. H. Bull	4-18-9
4-5	184" cyclotron magnet.	U of Calif	M. H. Bull	4-19-9
4-5	Linac 262 (The Linear Accelerator).	U of Calif	M. H. Bull	4-20-9
4-5	Cut away drawing of the synchrotron.	U of Calif	M. H. Bull	4-21-9
4-6	Classroom for safety course.	Ferguson	R. J. Walton	4-22-9
4-6	Classroom for safety course.	Ferguson	R. J. Walton	4-23-9

Date	Caption	Dept.	Photographer	Number
4-6	Woodworking shop safety program H. K. Ferguson Co.	Ferguson	R. J. Walton	4-24-9 thru
4-6	Mr. Sweeny at safety sign.	Ferguson	R. J. Walton	4-27-9
4-6	Mr. Cherry and Sweeny at safety sign.	Ferguson	R. J. Walton	4-28-9
4-6	"Don't Get Hooked by Any Accident"	Ferguson	R. J. Walton	4-29-9
				4-30-9
4-7	Equipment and smoke run.	Met	Mazzarella	4-31-9 thru 4-34-9
4-8	June Kohler at the Van de Graaff generator.	AEEExhibit	R. F. Smith	4-35-9
4-8	June Kohler at the Cloud Chamber.	AEEExhibit	R. F. Smith	4-36-9
4-8	Photomicrograph of metal surfaces to machine shop standards. Negative 50 X - Print 100 X.	Beckwith	R. F. Smith	4-37-9 and 4-38-9
4-11	Photomicrograph of a foraminiferer. 160 X.	Geology	R. F. Smith	4-39-9
4-11	200 X.	Geology	R. F. Smith	4-40-9
4-11	200 X.	Geology	R. F. Smith	4-41-9
4-11	160 X.	Geology	R. F. Smith	4-42-9
4-11	200 X	Geology	R. F. Smith	4-43-9
4-11	60 X.	Geology	R. F. Smith	4-44-9
4-11	Photomicrograph of a diatom. 200 X.	Geology	R. F. Smith	4-45-9
4-11	Photomicrograph of a foraminiferer. 160 X.	Geology	R. F. Smith	4-46-9
4-11	Photomicrograph of a diatom. 200 X.	Geology	R. F. Smith	4-47-9
4-11	Photomicrograph of a foraminiferer. 200 X.	Geology	R. F. Smith	4-48-9
4-11	Photomicrograph of a molusk. 50 X.	Geology	R. F. Smith	4-49-9
4-11	50 X.	Geology	R. F. Smith	4-50-9
4-11	50 X.	Geology	R. F. Smith	4-51-9
4-11	Low temperature bath (immersed in liquid nitrogen).	Schultz	P. Simack	4-52-9
4-11	Reaction vessel.	Schultz	P. Simack	4-53-9
4-11	Donald D. VanSlyke	Portrait	J. F. Garfield	4-54-9
4-11	Donald D. VanSlyke	Portrait	J. F. Garfield	4-55-9
4-11	Time - Course of distribution of tracer phosphate in plasma and liver.	Sachs	P. Simack	4-56-9

Date	Caption	Dept.	Photographer	Number
4-11	Time - Course of distribution of tracer phosphate in plasma and liver.	Sachs	P. Simack	4-57-9
4-12	Cloud chamber progress showing coils.	Shutt	R. F. Smith	4-58-9
4-12	Plants in greenhouse being exposed to radiation.	Biology	R. F. Smith	4-59-9
4-12	Dr. Sachs working on an experiment in his laboratory.	Biology	R. F. Smith	4-60-9
4-14	Liver glycogen.	Edelman	R. J. Walton	4-61-9
4-14	Total cholesterol - Adrenal, Plasma, Liver.	Edelman	R. J. Walton	4-62-9
4-14	Adrenal ascorbic acid.	Edelman	R. J. Walton	4-63-9
4-14	Fluid intake during first twenty-four hours period after irradiation.	Edelman	R. J. Walton	4-64-9
4-14	Time - Course of distribution of tracer phosphate in plasma and liver.	Sachs	R. J. Walton	4-65-9
4-14	Time - Course of distribution of tracer phosphate in plasma and liver.	Sachs	R. J. Walton	4-66-9
4-14	Cloud chamber.			4-67-9
		Shutt	P. Simack	thru 4-72-9
4-14	Smoke run and equipment.	Met	Mazzarella	4-73-9 thru 4-80-9
4-14	Grounds progress and maintenance.	Grounds Maint.	E. J. Hunter	4-81-9 thru 4-87-9
4-18	Expected pulse distributions.	Whittmore	M. H. Bull	4-88-9
4-18	Figure 2 - Pulse Distributions.	Whittmore	M. H. Bull	4-89-9
4-18	Figure 5 - Reduction in ionization loss for various materials.	Whittmore	M. H. Bull	4-90-9
4-18	Pile complex.	Pile	M. H. Bull	4-91-9
4-18	Model pump - front view.	Selvin	R. F. Smith	4-92-9

Date	Caption	Dept.	Photographer	Number
4-18	3/4 view of model pump.	Selvin	R. F. Smith	4-93-9
4-18	Photomicrograph of foraminiferer. Mag. 184 X.	Geology	R. F. Smith	4-94-9
4-18	Photomicrograph of foraminiferer. Mag. 184 X.	Geology	R. F. Smith	4-95-9
4-18	Photomicrograph of foraminiferer. Mag. 184 X.	Geology	R. F. Smith	4-96-9
4-18	Photomicrograph of a diatom. 800 X.	Geology	R. F. Smith	4-97-9
4-18	Photomicrograph of foraminiferer. Mag. 184 X.	Geology	R. F. Smith	4-98-9
4-18	Photomicrograph of foraminiferer.	Geology	R. F. Smith	4-99-9
4-19	Smoke run and equipment.	Met	Mazzarella	4-100-9 thru 4-111-9
4-20	H. R. 1141 - Soft.	Beckwith	R. F. Smith	4-112-9
4-20	Spec. 11 - Soft Carpenter.	Beckwith	R. F. Smith	4-113-9
4-20	H. R. 4140 - Hard.	Beckwith	R. F. Smith	4-114-9
4-20	H. R. 4140 - Soft.	Beckwith	R. F. Smith	4-115-9
4-20	C. F. 1141 - Soft.	Beckwith	R. F. Smith	4-116-9
4-20	C. F. 1117 - Soft.	Beckwith	R. F. Smith	4-117-9
4-20	Carpenter Stentor - Soft - Mag. 120X.	Beckwith	R. F. Smith	4-118-9
4-20	Mag. 1500X	Beckwith	R. F. Smith	4-119-9
4-20	C. F. 1111 - Soft.	Beckwith	R. F. Smith	4-120-9
4-20	C. F. 1141 - Soft.	Beckwith	R. F. Smith	4-121-9
4-20	H. R. 4140 - Soft - Mag. 1500 X.	Beckwith	R. F. Smith	4-122-9
4-20	H. R. 4140 - Hard - Mag. 1500 X.	Beckwith	R. F. Smith	4-123-9
4-20	Spec. 11 Soft Carpenter - Mag. 1500 X.	Beckwith	R. F. Smith	4-124-9
4-20	H. R. 1141 - Soft oil 1 mm.	Beckwith	R. F. Smith	4-125-9
4-20	H. R. 1141 Soft oil - Mag. 1500 X.	Beckwith	R. F. Smith	4-126-9
4-20	The U. S. A. of A E C.		M. H. Bull	4-127-9
4-20	Hand and foot counter in T-197.		R. J. Walton	4-128-9
4-20	Photomicrograph of a diatom.	Geology	R. F. Smith	4-129-9
4-20	Handling of one gram radium beryllium neutron source in steel holder with magnetic pickup. Cask is special lead, paraffin, cadium container weighing about $1\frac{1}{4}$ tons.	Thiesmeyer	R. F. Smith	4-130-9

Date	Caption	Dept.	Photographer	Number
4-20	Handling of radioactive isotope shipment at T-527 upon receipt from Oak Ridge.	LRT	R. F. Smith	4-131-9
4-20	Unloading radioactive isotope shipment at T-527 upon receipt from Oak Ridge.	LRT	R. F. Smith	4-132-9
4-21	Taylor and Crist, Bodenstein, Bright and Hagerty, Rittenbury and Urey.	Bigeleisen	M. H. Bull	4-133-9
4-22	Photomicrographs of particle tracks (star).	Haworth	R. F. Smith	4-134-9 4-135-9 4-136-9
4-22	Plexiglass dome being lifted from form.	Particle Physics	R. J. Walton	4-137- 9
4-22	Making plexiglass hood for cloud chamber. This photo shows tank being evaporated so that rubber covered form can be set in place.	Particle Physics	R. J. Walton	4-138-9
4-25	Smokerun and equipment.	Met	Meteorology	4-139-9 thru 4-149-9
4-21	Cyclotron building.	Cyclotron	J. F. Garfield	4-150-9
4-21	Cyclotron building & pile complex.	Cyclotron	J. F. Garfield	4-151-9
4-21	Cyclotron building.	Cyclotron	J. F. Garfield	4-152-9
4-27	Exposing plants in greenhouse to radiation from radium.	Sparrow	R. F. Smith	4-153-9
4-27	Exposing plants in greenhouse to radiation from radium.	Sparrow	R. F. Smith	4-154-9
4-27	Corn grass plant. Overall shot showing vegetation stage of tassel.	Singleton	R. F. Smith	4-155-9
4-27	Corn grass in greenhouse. Parent and two progeny.	Singleton	R. F. Smith	4-156-9
4-27	Closeup of silk on corn grass.	Singleton	R. F. Smith	4-157-9
4-27	Closeup of corn grass showing the vegetative state of tassel.	Singleton	R. F. Smith	4-158-9
4-27	Corn grass plan with pollen caps on to prevent cross pollination.	Singleton	R. F. Smith	4-159-9
4-27	Corn grass plant in greenhouse.	Singleton	R. F. Smith	4-160-9

Date	Caption	Dept.	Photographer	Number
4-27	Closeup of corn grass ears.	Singleton	R. F. Smith	4-161-9
4-27	Corn grass showing many tassles.	Singleton	R. F. Smith	4-162-9
4-27	Tassles of corn grass.	Singleton	R. F. Smith	4-163-9
4-27	Closeup of corn grass showing ears.	Singleton	R. F. Smith	4-164-9
4-27	Corn grass in greenhouse showing mutation back to primitive state.	Singleton	R. F. Smith	4-165-9
4-27	Figure 2 - Plastic tube sealer and cutter. Proposed design.	Selvin	R. F. Smith	4-166-9
4-27	<u>Pile model.</u>			4-167-9 thru
		Pile	R. J. Walton	4-174-9
4-28	Photomicrograph of metal surface standards.			
xxxx	Stentor (Neg.Mag. 60 X Print Mag. 120 X)	Beckwith	R. F. Smith	4-175-9
xxxx	Stentor (Neg.Mag. 750 X Print Mag. 1500 X)	Beckwith	R. F. Smith	4-176-9
xxxx	P. R. 1141 (Neg.Mag. 60 X Print Mag. 120 X)	Beckwith	R. F. Smith	4-177-9
xxxx	P. R. 1141 (Neg.Mag. 750 X Print Mag. 1500 X)	Beckwith	R. F. Smith	4-178-9
xxxx	1117 (Neg.Mag. 60 X Print Mag. 120 X)	Beckwith	R. F. Smith	4-179-9
xxxx	1117 (Neg.Mag. 750 X Print Mag. 1500 X)	Beckwith	R. F. Smith	4-180-9
4-28	Copies of cosmotron plans.	Cosmotron	R. J. Walton	4-181-9 thru 4-184-9
4-28	Layout of ultra-violet light absorption by nucleic acid in paramecium.			
xxxx	One thru eleven.	Moses	M. H. Bull	4-185-9
xxxx	Twelve thru twenty-two.	Moses	M. H. Bull	4-186-9
xxxx	Twenty-three thru thirty.	Moses	M. H. Bull	4-187-9
xxxx	Thirty-one thru thirty-eight.	Moses	M. H. Bull	4-188-9
4-28	Electro-magnet pump, helical flow.			
xxxx	D-2	Hansteen	M. H. Bull	4-189-9
xxxx	D-1	Hansteen	M. H. Bull	4-190-9
xxxx	A-2	Hansteen	M. H. Bull	4-191-9
xxxx	B-2	Hansteen	M. H. Bull	4-192-9
xxxx	C-2	Hansteen	M. H. Bull	4-193-9

Date	Caption	Dept.	Photographer	Number
4-28	Dr. Hale, Medical	Portrait	J. F. Garfield	4-194-9
4-28	Dr. Hale, Medical	Portrait	J. F. Garfield	4-195-9

May

Date	Caption	Dept.	Photographer	Number
5-2	Pie graphs - macronucleus and micronucleus.	Biology Moses	M. H. Bull	5-1-9
5-2	Progress and maintenance.	Grounds Maint.	E. J. Hunter	5-2-9 thru 5-23-9
5-2	Turbine wheels.	Hansteen	M. H. Bull	5-24-9
5-2	Short corn grass in greenhouse.	Biology	R. F. Smith	5-25-9
5-2	Closeup of single ear.	Singleton	R. F. Smith	5-26-9
5-2	Corn stalk with single ear.	Singleton	R. F. Smith	5-27-9
5-2	Corn grass in greenhouse.	Singleton	R. F. Smith	5-28-9
5-3	Figure 2 - Plastic tube sealer and cutter (proposed design).	Selvin	M. H. Bull	5-29-9
5-3	Figure 1 - Plastic tube sealer and cutter.	Selvin	M. H. Bull	5-30-9
5-3	Potato plants in greenhouse grown from seeds produced by plants subjected to x-ray radiation. Left (control) Right - 75 r.	Chris Biology	R. F. Smith	5-31-9
5-3	Potato plants in greenhouse grown from seeds produced by plants subjected to x-ray radiation. Left 300 r. Right 600 r.	Chris Biology	R. F. Smith	5-32-9
5-3	This has been deleted by Eric Christensen on May 25, 1949.			5-33-9
5-3	Potato plants in greenhouse grown from seeds produced by plants subjected to x-ray radiation. Left 1200 R - Right 2400 R.	Chris Biology	R. F. Smith	5-34-9
5-3	Special slide ruler used in proportioning gas concentrations.	Lowry Met	R. J. Walton	5-35-9 thru 5-40-9
5-4	Dr. Lee Farr	Portrait	J. F. Garfield	5-41-9
5-4	Dr. Lee Farr	Portrait	J. F. Garfield	5-42-9
5-4	Dr. Lee Farr	Portrait	J. F. Garfield	5-43-9
5-4	Dr. Benjamin Rubin.	Portrait	J. F. Garfield	5-44-9

Date	Caption	Dept.	Photographer	Number
5-4	Mendelejeff's periodic classification of the elements (1872).	Gurinsky	M. H. Bull	5-45-9
5-4	Periodic classification of the elements.	Gurinsky	M. H. Bull	5-46-9
5-4	Atomic volume (atomic weight/density).	Gurinsky	M. H. Bull	5-47-9
5-4	This was deleted by Eric Christensen July 5, 1949.			5-48-9
5-4	Grounds progress and maintenance.	Grounds Maint.	E. J. Hunter	5-49-9 thru 5-56-9
5-4	Transferred to Classified Documents.		Declass 11/15/56 ←	5-57-9
5-5	Equipment used to dissolve uranium. Waste disposal laboratory.	Manowitz	R. J. Walton	5-58-9 thru 5-59-9
5-5	Rate of consumption curves for fossil fuels.	C Williams	M. H. Bull	5-60-9
5-5	Total energy of fossil fuels.	C Williams	M. H. Bull	5-61-9
5-5	Growth of world population.	C Williams	M. H. Bull	5-62-9
5-5	Human affairs in time perspective.	C Williams	M. H. Bull	5-63-9
5-5	World production of energy from coal and petroleum.	C Williams	M. H. Bull	5-64-9
5-6	Dr. Sidney C. Madden	Portrait	J. F. Garfield	5-65-9
5-6	Dr. Sidney C. Madden	Portrait	J. F. Garfield	5-66-9
5-6	Michael Amrine	Portrait	J. F. Garfield	5-67-9
5-6	Michael Amrine	Portrait	J. F. Garfield	5-68-9
5-6	Michael Amrine	Portrait	J. F. Garfield	5-69-9
5-6	Smoke run on May 4, 1949.	5-79-9 cleared Met	Meteorology	5-70-9 thru 5-84-9
5-6	Photosynthesis apparatus.	Gibbs-Bio	P. Simack	5-85-9
5-5	Transferred to Classified Documents.		Declass 11/15/56 ←	5-86-9
5-5	Plexiglass ring for cloud chamber.	Cld Chmbr	R. J. Walton	5-87-9

Date	Caption	Dept.	Photographer	Number
5-6	World's first sun heated home.	C Williams	M. H. Bull	5-88-9
5-6	The frequency of streptomycin resistant cells as a function of repeated subculturing in E Coli (B/R).	Rubin-Bio	M. H. Bull	5-89-9
5-6	Low carrier phosphate.	Rubin-Bio	M. H. Bull	5-90-9
5-6	Low carrier.	Rubin-Bio	M. H. Bull	5-91-9
5-6	The effect of increasing amounts of P32 on the occurrence of streptomycin resistant cells in cultures of E Coli (B/R).	Rubin-Bio	M. H. Bull	5-92-9
5-6	The effect of subculturing on mutation dose rate response in E Coli B/R (low carrier phosphate).	Rubin-Bio	M. H. Bull	5-93-9
5-6	Michael Amrine	Portrait	J. F. Garfield	5-94-9
5-9	Map of Queens County showing correlations of certain selected wheels and borings.	Geology	M. H. Bull	5-95-9
5-9	Hortensphere raised above building by crane.	Cyclotron	R. F. Smith	5-96-9
5-9	Hortensphere on top of building being put into position.	Cyclotron	R. F. Smith	5-97-9
5-9	Trailer with hortensphere in back of cyclotron building with crane making ready to lift sphere on top of building.	Cyclotron	R. F. Smith	5-98-9
5-9	Closeup of hortensphere on trailer.	Cyclotron	R. F. Smith	5-99-9
5-9	Hortensphere on trailer truck in front of cyclotron building.	Cyclotron	R. F. Smith	5-100-9
5-9	Hortensphere being placed into position atop cyclotron building.	Cyclotron	R. F. Smith	5-101-9
5-9	Frances Myers - Full side.	Medical	J. F. Garfield	5-102-9
5-9	Frances Myers - Full front.	Medical	J. F. Garfield	5-103-9
5-9	Frances Myers - Half front.	Medical	J. F. Garfield	5-104-9
5-9	Frances Myers - Half front.	Medical	J. F. Garfield	5-105-9
5-9	William McIntire (half front).	Medical	J. F. Garfield	5-106-9
5-9	William McIntire - half front.	Medical	J. F. Garfield	5-107-9
5-9	William McIntire - full side.	Medical	J. F. Garfield	5-108-9
5-9	William McIntire - full front.	Medical	J. F. Garfield	5-109-9
5-9	Thomas Gilmore - half front.	Medical	J. F. Garfield	5-110-9
5-9	Thomas Gilmore - full side.	Medical	J. F. Garfield	5-111-9
5-9	Thomas Gilmore - full front.	Medical	J. F. Garfield	5-112-9
5-9	Thomas Gilmore - full front.	Medical	J. F. Garfield	5-113-9

Date	Caption	Dept.	Photographer	Number
5-9	Outstretched arms are long rubber gloves inflated by pressure inside a glass-topped "dry box".	Balber	M. H. Bull	5-114-9
5-9	Lead can is lifted thru door to cave on the other side of the wall by Dr. French Hagemann.	Balber	M. H. Bull	5-115-9
5-9	Lead door is swung open to show cans containing radioactive samples on the other side of the wall.	Balber	M. H. Bull	5-116-9
5-9	Under glass top of dry box an experimenter works on a raised stage.	Balber	M. H. Bull	5-117-9
5-9	Wearing a mask to keep from inhaling radioactive vapors, S. Thompson loads a radioactive solution to be whirled in centrifuge.	Balber	M. H. Bull	5-118-9
5-9	Behind wall, radioactive solutions stand in the open.	Balber	M. H. Bull	5-119-9
5-9	Closeup of stage inside the dry box shows chemist loading a tiny crucible with a pellet of compound which is to be reduced to a pure metal.	Balber	M. H. Bull	5-120-9
5-9	Entire wall shows remote control instruments at left, doors and cans at right.	Balber	M. H. Bull	5-121-9
5-9	Protein determinations of macronuclei and micronuclei - Table 2.	Moses	M. H. Bull	5-122-9
5-9	Desoyribose determination of macro and micronuclei.	Moses	M. H. Bull	5-123-9
5-9	The effect of purified ribonuclease on macro and micro nuclei of P. caudatum (PC7) cut at 5 micra.	Moses	M. H. Bull	5-124-9
5-9	Relative concentrations of protein and desoyribose nuclic acid in macro and micro nuclei of P. caudatum (PC7).	Moses	M. H. Bull	5-125-9
5-9	Total nucleotide determinations of macro and micro nuclei.	Moses	M. H. Bull	5-126-9
5-6	Transferred to Classified Documents.		Declass.	{5-127-9
5-6	Transferred to Classified Documents.		11/15/56	{5-128-9
5-10	Strip of film from monitoring station.	Mon sta.	M. H. Bull	5-129-9
5-10	Schematic of a pulse counter. (Full chamber)	McMahon	M. H. Bull	5-130-9 A 5-130-9 B
5-10	Transferred to Classified Documents.		Declass.	{5-131-9
5-10	Transferred to Classified Documents.		11/15/56	{5-132-9

Date	Caption	Dept.	Photographer	Number
5-12	Meteorology smoke run.	Met	Meteorology	5-133-9 thru 5-140-9
5-11	These have been transferred to Classified Documents.		Classified 11/15/56	{ 5-141-9 thru 5-152-9
5-13	4500 years of corn Experiments of mutation.	Singleton	R. F. Smith	5-153-9 thru 5-161-9
5-13	100 K.C. square wave generator, H. V. Schematic EH-1-197-1-4 (A)	O'Neill	M. Herbert	5-162-9
5-16	Meteorology smoke run.	Met	Meteorology	5-163-9 thru 5-187-9
5-16	Meson scattering experiment.	Alburger	A. Lasky	5-188-9
5-16	Linear accelerator.	Accel	A. Lasky	5-189-9
5-16	Coil current (potentiometer setting).	Accel	A. Lasky	5-190-9
5-11	Front view of cloud chamber. High view showing camera in position.	Cloud Chamber	R. J. Walton	5-191-9
5-17	Meson decay schemes.	Johnson	P. Simack	5-192-9
5-17	Scattering chamber for D-N reactions.	Dohlman	P. Simack	5-193-9
5-17	Hard showers (AB(D plus C), Solid curve. Hard showers (AB) X.1, Component, dotted curve.	Piccioni and Walsh	P. Simack	5-194-9
5-17	Front view.	Piccioni	P. Simack	5-195-9
5-17	Triple coincidence (bursts).	McMahon	P. Simack	5-196-9
5-17	Cross section of betatron magnet.	Pfeiffer	P. Simack	5-197-9
5-17	Proton synchrotrons: Berkley Brookhaven Birmingham	Pfeiffer	P. Simack	5-198-9

Date	Caption	Dept.	Photographer	Number
5-17	$\frac{1}{4}$ scale model of the general view of the Beva magnet.	Pfeiffer	P. Simack	5-199-9
5-17	General view of the interior of Beva building showing progress on magnet.	Pfeiffer	P. Simack	5-200-9
5-17	Energy levels calculated for transition Rotational Quantum number J-1 to J-2 for an assumed nuclear spin of $3/2$.	Cohen	P. Simack	5-201-9
5-17	Spectral sensitivity of typical lead sulphide cells.	Amick	P. Simack	5-202-9
5-17	Signal/noise (arbitrary units). Wave length (microns).	Amick	P. Simack	5-203-9
5-17	Energy-level model 000, oxygen impurity centers.			
	----- lead impurity centers.	Amick	P. Simack	5-204-9
5-17	(Lead telluride) Sensitivity thermocouple) log.	Amick	P. Simack	5-205-9
5-17	Variation of conductivity (full line) and sensitivity (broken line) with thermo-electric power.	Amick	P. Simack	5-206-9
5-17	Lead selenide and thermocouple sensitivity.	Amick	P. Simack	5-207-9
5-12 and 5-13	Working model of viewing periscope for hot cell.	Strickland	R. J. Walton	5-208-9 thru 5-217-9
5-12	These have been transferred to Classified Documents.		Declassified 11/15/56	{ 5-218-9 thru 5-225-9
5-17	The Melting Points of Metals.	Cooke	P. Simack	5-226-9
5-17	Broom star.	Salant	R. F. Smith	5-227-9
5-17	Double star.	Salant	R. F. Smith	5-228-9
5-17	Hammer track.	Salant	R. F. Smith	5-229-9
5-17	Star.	Salant	R. F. Smith	5-230-9
5-17	Number of tracks in 1368 mm^2 10.0 mev.	Dohlman	M. H. Bull	5-231-9
5-17	Number of tracks in 1368 mm^2 .	Dohlman	M. H. Bull	5-232-9
5-17	Figure 1 - Schematic diagram of beta-ray spectrometer.	Johnson	M. H. Bull	5-233-9

Date	Caption	Dept.	Photographer	Number
5-18	Meteorology smoke run.	Met	Meteorology	5-234-9 thru 5-240-9
5-18	Trillium bud culture. Sponge mount for bud is soaked with plant nutrient to feed bud and enable it to go thru normal processes of development.	Chris Biology	R. F. Smith	5-241-9
5-18	Trillium bud culture with scale. Sponge mount for bud is soaked with plant nutrient to feed bud and enable it to undergo normal processes of development.	Chris Biology	R. F. Smith	5-242-9
5-19	Equipment and smoke.	Met	Meteorology	5-243-9 thru 5-250-9
5-11	Rear view of cloud chamber.	CldChmbr	R. J. Walton	5-251-9
5-11	Front view of cloud chamber.	CldChmbr	R. J. Walton	5-252-9
5-19	Figure 2 (Refer to 6-118-9). Semi-hot bench general arrangements.	Jelly	M. H. Bull	5-253-9
5-19	Charts for Chemistry.	Bigeleisen	M. H. Bull	5-254-9 thru 5-257-9
5-20	Interpolation printer, scale of 128.	Constant	A. Lasky	5-258-9
5-11	Transferred to Classified Documents.		declassified 11/15/56 ←	5-259-9
5-20	Hydrogen isotopes.	Gurinsky	R. J. Walton	5-260-9
5-20	Cobalt isotopes.	Gurinsky	R. J. Walton	5-261-9
5-20	These have been transferred to Classified Documents.		declassified 11/15/56 } ←	5-262-9 thru 5-266-9
5-23	Removing 20 curie source of radio co- balt from lead pig for radiating ex- perimental field of plants for the Biology department. Contued next page.			

Date	Caption	Dept.	Photographer	Number
5-23	The source is lifted by means of an electro-magnetic pickup and placed in a chamber in the foreground. This is the first of four steps to place the source in field well.	Biology	R. F. Smith	5-267-9
5-23	Second step in placing cobalt in the field well. Dr. Sparrow removes the funnel from the cell. Each man did one operation allowing a maximum of seven seconds exposure to the powerful gamma rays.	Biology	R. F. Smith	5-268-9
5-23	Third step in placing cobalt in field well. Dr. Singleton locks source to brass weight which will enable the source to be raised and lowered into ground well pig.	Biology	R. F. Smith	5-269-9
5-23	Fourth step in placing source in ground well.	Biology	R. F. Smith	5-270-9
5-23	Checking lead pig containing 20 curies of radio cobalt 60 for harmful contamination on pigs outer surface.	Biology	R. F. Smith	5-271-9
5-23	Brass weight and mock source to show how actual source will couple to weight.	Biology	R. F. Smith	5-272-9
5-23	Well and pig for housing 20 curie source of radio cobalt 60 in experimental field.	Biology	R. F. Smith	5-273-9
5-23	Trillium patch in woods at Brookhaven.	Biology	R. F. Smith	5-274-9
5-23	Trillium patch in woods at Brookhaven.	Sparrow	R. F. Smith	5-275-9
5-23	Edge of pole face, incident beam.	Barton	M. H. Bull	5-276-9
5-20	Waste disposal laboratory showing equipment used to dissolve uranium.	Manowitz	R. J. Walton	5-277-9
5-24	Photomicrograph of a diatom. Neg. 200 X - Print 400 X	Geology	R. F. Smith	5-278-9
5-24	Photomicrograph of a diatom. Neg. 200 X - Print 400 X	Geology	R. F. Smith	5-279-9
5-24	Photomicrograph of diatom. Neg. 200 X - Print 400 X	Geology	R. F. Smith	5-280-9
5-24	Photomicrograph of a diatom. Neg. 200 X - Print 400 X	Geology	R. F. Smith	5-281-9
5-24	Photomicrograph of a diatom. Neg. 200 X - Print 400 X	Geology	R. F. Smith	5-282-9
5-24	Photomicrograph of a diatom. Neg. 200 X - Print 400 X	Geology	R. F. Smith	5-283-9
5-24	Photomicrograph of a diatom. Neg. 480 X - Print 960 X	Geology	R. F. Smith	5-284-9

Date	Caption	Dept.	Photographer	Number
5-24	Temperature, degrees centigrade.	Dohlman	P. Simack	5-285-9
5-24	These have been transferred to classified documents.		Declassified 11/15/56	5-286-9 5-287-9 5-288-9
5-25	Copies from Keystone Camera Guide. Diaphragm sizes.	Health P	A. Lasky	5-289-9
5-25	Lens	Health P	A. Lasky	5-290-9
5-25	Line diagram for loading.	Health P	A. Lasky	5-291-9
5-25	Front view.	Health P	A. Lasky	5-292-9
5-25	Interior	Health P	A. Lasky	5-293-9
5-25	Side view.	Health P	A. Lasky	5-294-9
5-25	Calibration scale for B and H viewer for measuring pulses.	McMahon	M. H. Bull	5-295-9
5-25	These have been transferred to Classified Documents.	5-296-9 5-297-9 5-298-9	Declassified 11/15/56	5-296-9 5-297-9 5-298-9
5-26	Explanatory cartoon slides.	L R T	P. Simack	5-299-9 thru 5-304-9
5-26	Transferred to Classified Documents.		Declassified 11/15/56	5-305-9
5-26	Transferred to Classified Documents.			5-306-9
5-31	Thyroid cancer patients.	Medical	R. F. Smith	5-307-9 thru 5-317-9
5-31	General view of chemistry hot lab.	Chem	R. F. Smith	5-318-9
5-31	Experimental potato plants.	Chris	R. F. Smith	5-319-9
5-31	Experimental potato plants.	Biology	R. F. Smith	5-320-9
5-31	Experimental potato plants.	Chris	R. F. Smith	5-321-9
5-26	Aerial view of the biology experimental field.	Biology	R. J. Walton	5-322-9 and 5-323-9
5-26 and 5-27	These have been transferred to Classified Documents.	5-324-9 thru 5-333-9 Declassified 11/15/56		5-324-9 thru 5-333-9

Date	Caption	Dept.	Photographer	Number
5-31	Field control unit proton resonance schematic.	Constant	A. Lasky	5-334-9

June

Date	Caption	Dept.	Photographer	Number
6-1	A. B. W. Anderson	Portrait	J. F. Garfield	6-1-9
6-1	A. B. W. Anderson	Portrait	J. F. Garfield	6-2-9
6-1	Transferred to Classified Documents.	Classified #15156		6-3-9
6-1	Transferred to Classified Documents.			6-4-9
6-1	Balloon flight Lebanon, Pennsylvania.	Cloud Chamber	J. F. Garfield	6-5-9 * 6-6-9
6-2	Dr. Haworth shown with cosmotron model as from science illustrated.	M. Kuper	M. H. Bull	6-7-9
6-2	Rehearsal for "The Male Animal".	Recrea	J. F. Garfield	6-8-9
6-3	Symbol chart - principal electronic tubes.	Constant	A. Lasky	6-9-9
6-3	What happens when nucleus of U235 is split by a neutron.	P & GA	A. Lasky	6-10-9
6-3	Simple schematic of a nuclear power plant.	P & GA	A. Lasky	6-11-9
6-3	Graphic illustration of pile research.	P & GA	A. Lasky	6-12-9
6-3	Use of radioactive substances in physiological research.	P & GA	A. Lasky	6-13-9
6-3	Graphic presentation of medical, in- dustrial, biological applications of nuclear energy.	P & GA	A. Lasky	6-14-9
	NO NEGATIVE <u>SEE A. FINE</u>			6-15-9 <u>AG-15-9</u>
6-6	Ortho deuterio toluene, 10% solution in CCl ₄ .	Friedman	P. Simack	6-16-9
6-6	Ortho deuterio toluene.	Chemistry	P. Simack	6-17-9
6-6	Para deuterio toluene, 10% solution in CCl ₄ .	Friedman	P. Simack	6-18-9
6-6	Para deuterio toluene.	Chemistry	P. Simack	6-19-9
6-6	Omega deuterio toluene, 10% solution in CCl ₄ .	Friedman	P. Simack	6-20-9
6-6	Omega deuterio toluene.	Chemistry	P. Simack	6-21-9
6-6	Toluene.	Friedman	P. Simack	6-22-9
6-6	Toluene, 10% solution in CCl ₄ .	Chemistry	P. Simack	6-23-9
6-6	Meta deuterio toluene.	Friedman	P. Simack	6-24-9
6-6	Meta deuterio toluene, 10% solution in CCl ₄ .	Chemistry	P. Simack	6-25-9

Date	Caption	Dept.	Photographer	Number
6-6	Thickness of added lead absorber (mg/cm ²).	Chemistry Burt	P. Simack	6-26-9
6-7	Hydrogen exposure chamber for mice and temperature quantative dehydration apparatus.	Biology Ballentne	R. F. Smith	6-27-9
6-7	Oxidation train for hydrogen.	Ballentne	R. F. Smith	6-28-9
6-7	Carbon dioxide recovery assembly.	Biology	R. F. Smith	6-29-9
6-7	Counter filling assembly for C ¹⁴ , H ³ , and S ³⁵ .	Ballentine	R. F. Smith	6-30-9
6-7	Tritium dilution and sampling apparatus.	Biology	R. F. Smith	6-31-9
6-7	Potatoes in special position around source. This is the hottest position in radiated field.	Chris Biology	R. F. Smith	6-32-9
6-7	Planting in radiated field.	Biology	R. F. Smith	6-33-9
6-7	Photomacrograph of weld. Neg. 2 x -- Print 4 x.	Kammerer	R. F. Smith	6-34-9
6-8	Experimental potato flat in greenhouse. Plants have been grown from x-rayed seed.	Chris Biology	R. F. Smith	6-35-9
6-2	Inside back of recording panel for dynamic condensor electrometer.	M. Weiss	R. J. Walton	6-36-9
6-2	Front panel.	M. Weiss	R. J. Walton	6-37-9
6-2	Inside view of the electrometer head showing the dynamic condenser, preamplifier, and the grounding pin and actuator used for recycling.	M. Weiss	R. J. Walton	6-39-9
6-2	Photograph of the complete assembly, including power supplies and recorder.	M. Weiss	R. J. Walton	6-43-9
6-9	Moment of release.	Balloon	J. F. Garfield	6-44-9
6-9	Balloon release, about to rip.	Balloon	J. F. Garfield	6-45-9
6-9	Balloon fails to release.	Balloon	J. F. Garfield	6-46-9
6-9	Descent	Balloon	J. F. Garfield	6-47-9
6-9	Final inspection.	Balloon	J. F. Garfield	6-48-9
6-9	Final lashing.	Balloon	J. F. Garfield	6-49-9
6-9	Attaching cloud chamber.	Balloon	J. F. Garfield	6-50-9

Date	Caption	Dept.	Photographer	Number
6-9	Attaching cloud chamber.	Balloon	J. F. Garfield	6-51-9
6-9	Negative deleted.			6-52-9
6-9	Negative deleted.			6-53-9
6-9	Withdrawing balloon filler tube.	Balloon	J. F. Garfield	6-54-9
6-9	Holding balloon.	Balloon	J. F. Garfield	6-55-9
6-9	A balloon is hard to hold.	Balloon	J. F. Garfield	6-56-9
6-9	Deleted.	Balloon	J. F. Garfield	6-57-9
6-9	Deleted.	Balloon	J. F. Garfield	6-58-9
6-9	Deleted.	Balloon	J. F. Garfield	6-59-9
6-9	Patching balloon with scotch tape.	Balloon	J. F. Garfield	6-60-9
6-9	Inflating balloon.	Balloon	J. F. Garfield	6-61-9
6-9	Inflating balloon.	Balloon	J. F. Garfield	6-62-9
6-9	Deleted.			6-63-9
6-9	Deleted.			6-64-9
6-9	Deleted.			6-65-9
6-9	Bottom of balloon.	Balloon	J. F. Garfield	6-66-9
6-9	Unwrapping the balloon.	Balloon	J. F. Garfield	6-67-9
6-9	Packing release mechanism.	Balloon	J. F. Garfield	6-68-9
6-9	Unwrapping balloon.	Balloon	J. F. Garfield	6-69-9
6-9	Preliminary inflation of the balloon.	Balloon	J. F. Garfield	6-70-9
6-9	Attaching release mechanism.	Balloon	J. F. Garfield	6-71-9
6-9	Get the scotch tape.	Balloon	J. F. Garfield	6-72-9
6-9	Balloon	Balloon	J. F. Garfield	6-73-9
6-9	Descent	Balloon	J. F. Garfield	6-74-9
6-9	Balloon at dawn.	Balloon	J. F. Garfield	6-75-9
6-9	Balloon starts down.	Balloon	J. F. Garfield	6-76-9
6-9	Balloon, release mechanism, cloud chamber and particle plates.	Balloon	J. F. Garfield	6-77-9
6-9	Balloon losing gas.	Balloon	J. F. Garfield	6-78-9
6-6	Aerial view of potato field.	Biology	R. J. Walton	6-79-9
6-6	Aerial view of potato field.	Biology	R. J. Walton	6-80-9
6-13	Preliminary ventilation tests on the hot cell mockup.	Keyes	J. F. Garfield	6-81-9 6-82-9 6-83-9
6-13	Microphotometric apparatus, photo tube housing, bottom view.	Moses-Bio	R. F. Smith	6-84-9
6-13	Top view.	Moses-Bio	R. F. Smith	6-85-9
6-13	Bottom view with plate holder removed.	Moses-Bio	R. F. Smith	6-86-9
6-13	Bottom view with plate holder in half-way position.	Moses-Bio	R. F. Smith	6-87-9
6-13	End view showing iris diaphragm scale.	Moses-Bio	R. F. Smith	6-88-9
6-13	Three-quarter view.	Moses-Bio	R. F. Smith	6-89-9
6-13	Three-quarter view.	Moses-Bio	R. F. Smith	6-90-9
6-13	Microphotometric apparatus, main assembly photo tube mount.	Moses-Bio	R. F. Smith	6-91-9
6-13	L. J. Haworth Director Brookhaven National Laboratory	Portrait	J. F. Garfield	6-92-9 thru 6-98-9

Date	Caption	Dept.	Photographer	Number
6-13	Captions forthcoming from physics.	Barton	M. H. Bull	6-99-9 thru 6-103-9
6-13	Magnet section of cosmotron model.	Cosmo	R. F. Smith	6-104-9
6-13	Magnet section of cosmotron model.	Milian	R. F. Smith	6-105-9
6-13	Magnet section of cosmotron model.	Cosmo	R. F. Smith	6-106-9
6-15	Face centered cubic structure. (a) Face centered cubic cell (b,c,d) face centered cubic packing of spheres of contact ⁶ (e) x-ray photogram of face centered cubic copper.	Atherton	A. Lasky	6-107-9
6-15	Close-packed hexagonal structure. (a,b) Close-packed hexagonal unit cell and packing of spheres in contact 6 (c) x-ray photogram of close-packed hexagonal zinc.	Atherton	A. Lasky	6-108-9
6-15	Body centered cubic structure (a) body centered cubic unit cell (b,c) body centered cubic packing of spheres in contact ⁶ (d) x-ray photogram of body centered cubic iron.	Atherton	A. Lasky	6-109-9
6-15	Metal surface weld photomacrograph.	Kammerer	R. F. Smith	6-110-9
6-15	Totally sealed magnetic cow shown without magnets.	Selvin	R. F. Smith	6-111-9
6-15	Totally sealed magnetic cow shown with magnets.	Selvin	R. F. Smith	6-112-9
6-15	Four experimental potato plants, view looking west.	Chris Biology	R. F. Smith	6-113-9
6-15	Experimental potato patch, view look- ing northwest.	Chris Biology	R. F. Smith	6-114-9
6-16	Minutes - Resistivity temperature.	McReynolds	P. Bennett	6-115-9
6-16	Resistivity - Time 2 min.	McReynolds	P. Benett	6-116-9
6-16	Resistivity - Time 2 min.	McReynolds	P. Bennett	6-117-9
6-16	Figure 1 (Refer 5-253-9) Semi-hot cell horizontal section.	Keyes Jelly	P. Simack	6-118-9
6-16	Needs caption.	Barton	P. Bennett	6-119-9
6-16	Needs caption.	Barton	P. Bennett	6-120-9
6-16	Proton spectograph.	Barton	P. Bennett	6-121-9

Date	Caption	Dept.	Photographer	Number
6-16	Grounds progress and maintenance.	GrndsMaint	E. J. Hunter	6-122-9 thru 6-135-9
6-14 and 6-15	Semi hot cell.	Keyes	R. J. Walton	6-136-9 thru 6-162-9
6-20	Tuning fork, frequency divider, schematic.	O'Neill	A. Lasky	6-163-9
6-20	Components of pile concrete.	G. Inman	R. F. Smith	6-164-9 6-165-9 6-166-9
6-17	Cyclotron building facing northwest.	Cyclotron	R. J. Walton	6-167-9
6-22	Table of atmospheric impurities.	S. Harris	A. Lasky	6-168-9
6-22	$\frac{10^7}{T^2}$	Bigeleisen	A. Lasky	6-169-9
6-22	10 $\frac{3}{T}$	Bigeleisen	A. Lasky	6-170-9
6-22	Graph - Parts per million fluorescein. Parts per million NaCl. Minutes.	Geology Weiss	P. Simack	6-171-9
6-23	Taken from 'Helevetica Physica Acta' Figure 9 - Zur absorptionsmethode der Bestimmung von Bund y Energien. 397.	Biology Ballentine	P. Simack	6-172-9
6-23	Magnetic measurements testing device.	D Howard	J. F. Garfield	6-173-9
6-21	Semi-hot cell S-32.	Keyes	R. J. Walton	6-174-9
6-21	Semi-hot cell S-33-R.	Keyes	R. J. Walton	6-175-9
6-21	Semi-hot cell S-34.	Keyes	R. J. Walton	6-176-9
6-21	Semi-hot cell S-35.	Keyes	R. J. Walton	6-177-9
6-24	Semi-hot cell S-31.	Keyes	R. J. Walton	6-178-9
6-24	Semi-hot cell S-33.	Keyes	R. J. Walton	6-179-9
6-24	Semi-hot cell S-34-R.	Keyes	R. J. Walton	6-180-9
6-24	Semi-hot cell S-35-R.	Keyes	R. J. Walton	6-181-9

Date	Caption	Dept.	Photographer	Number
6-24	Meteorology smoke run.	Met	Meteorology	6-182-9 thru 6-189-9
6-24	Reticule chart.	McMahon	P. Simack	6-190-9
6-23	Milling machine rollers.	Warner	R. F. Smith	6-191-9
6-23	Milling machine plate.	Warner	R. F. Smith	6-192-9
6-27	Reactions of unsaturated organic molecules. Taken from Advances in Catalysis.	Turkevich	P. Simack	6-193-9 6-194-9 6-195-9
6-27	Reduction of acetone by deuterium.	Turkevich	P. Simack	6-196-9
6-27	Methane	Turkevich	P. Simack	6-197-9
6-27	Reduction of acetone by deuterium.	Turkevich	P. Simack	6-198-9
6-27	Ethane	Turkevich	P. Simack	6-199-9
6-27	Propane	Turkevich	P. Simack	6-200-9
6-27	Plan of the 100 plane.	Turkevich	P. Simack	6-201-9
6-27	The unit cell of MoO ₂ .	Turkevich	P. Simack	6-202-9
6-27	The ethylene molecule absorbed on nickel.	Turkevich	P. Simack	6-203-9
6-27	The disposition of a C ₁₅ chain on a metallic cobalt catalyst.	Turkevich	P. Simack	6-204-9
6-27	Plan of the 110 plane of MoO ₂ .	Turkevich	P. Simack	6-205-9
6-27	The MoS ₂ crystal showing incomplete cells with molybdenum layers exposed.	Turkevich	P. Simack	6-206-9
6-27	U. S. Department of Interior Geological Survey location of shallow observation wells and stream gaging stations.	DeLaguna Geology	M. H. Bull	6-207-9
6-28	100 K.C. square wave generator H.V. schematic.	Kramer	P. Simack	6-208-9
6-28	100 K.C. square wave generator H.V.	Kramer	R. F. Smith	6-209-9
6-28	100 K.C. square wave generator H.V.	Kramer	R. F. Smith	6-210-9
6-28	Wave form from 100 KC square wave generator.	Kramer	R. F. Smith	6-211-9
6-28	Front view of Brown potentiometer.	M Weiss	R. J. Walton	6-212-9
6-28	GM tube assembly.	M Weiss	R. J. Walton	6-213-9
6-28	Front view of ratemeter in case.	M Weiss	R. J. Walton	6-214-9
6-28	Underside of ratemeter chassis.	M Weiss	R. J. Walton	6-215-9
6-28	Top view of ratemeter chassis.	M. Weiss	R. J. Walton	6-216-9
6-29	View showing car and wall of dorm after the car rolled into side.	Hannoch	R. F. Smith	6-217-9

Date	Caption	Dept.	Photographer	Number
6-29	Exterior view of damage to Ferguson dorm.	Hannoch	R. F. Smith	6-218-9
6-29	Interior view of damage in the Ferg. dorm.	Hannoch	R. F. Smith	6-219-9
6-29	Interior view of damage in the Ferg. dorm.	Hannoch	R. F. Smith	6-220-9
6-29	Geiger filling apparatus in electronics with engineer at control.	Higinbotham	R. F. Smith	6-221-9
6-29	Geiger filling apparatus in electronics.	Higinbotham	R. F. Smith	6-222-9 6-223-9
6-30	Radiation experiment with Tradescantia. Left to right - Control T-16 T-15.	Sparrow	R. F. Smith	6-224-9

July

Date	Caption	Dept.	Photographer	Number
7-1	Resonance intergrals in 10^{-24} CM ² .	Goldhaber	A. R. Lasky	7-1-9
7-1	Composite picture of theoretical and experimental curves.	Cohen	Paul Simack	7-2-9
7-1	Theoretical and experimental curves.	Cohen	Paul Simack	7-3-9
7-1	Theoretical and experimental curves.	Cohen	Paul Simack	7-4-9
7-1	G-M tube.	Weiss	R. F. Smith	7-5-9
7-5	Radiation field showing plants receiving the greatest amount of radiation from the 20 curie cobalt source.	Sparrow	R. F. Smith	7-6-9
7-7	Average plate characteristics	Cottingham	A. R. Lasky	
7-7	Pentode connection - 6AK5.			7-7-9
7-7	Each triode unit - 6SL7-GT.			7-8-9
7-7	6C4			7-9-9
7-7	Each triode unit - 6SN7-GT.			7-10-9
7-7	6AC7.			7-11-9
7-7	Triode connection - 6L6.			7-12-9
7-7	Average plate characteristics, 6SK7.			7-13-9
7-7	For each unit - 6J6.			7-14-9
7-7	With Ecl as variable - 6AG7.			7-15-9
7-7	With Ecl as variable - 6L6.	Cottingham		7-16-9
7-7	Video power amplifier pentode, 6AG7.	ham	A. R. Lasky	7-17-9
7-7	Maximum output voltage vs load capacitance.	Kramer	M. H. Bull	7-18-9
7-7	Cyclotron building looking northwest.	Cyclotron	R. F. Smith	7-19-9
7-8	100 KC square wave generator schematic	O'Neill	A. R. Lasky	7-20-9
7-8	James Rebman working on the full-size mockup of a section of the cosmotron.	Cosmotron	R. F. Smith	7-21-9
7-11	Section A-A.	Piccioni	M. H. Bull	7-22-9
7-11	Slide negatives for chemistry.	Turkevich	M. H. Bull	7-23-9 thru 7-30-9

Date	Caption	Dept.	Photographer	Number
7-12	Diffusion cell.	Kennedy	M. H. Bull	7-31-9
7-12	Figure 1 - Values of (Equation) plotted vs x for various values of Dt between 0.90 and 0.45.	Kennedy	M. H. Bull	7-32-9
7-12	Figure 1 - Concentration cell with liquid junction in sintered-glass disk.	Kennedy	M. H. Bull	7-33-9
7-12	Figure 2 - Values of (equation) plotted vs Dt.	Kennedy	M. H. Bull	7-34-9
7-12	Figure 2 - Ratios of individual ion activity coefficients of sodium ion and iodide ion plotted vs (equation).	Kennedy	M. H. Bull	7-35-9
7-12	Figure 4 - Individual ion activity coefficients of sodium ion and iodide ion in aqueous sodium iodide solution.	Kennedy	M. H. Bull	7-36-9
7-12	Figure 4 - Self-diffusion coefficients of Na ⁺ (Curve I) and I ⁻ (Curve II) in aqueous sodium iodide solutions at 25° C.	Kennedy	M. H. Bull	7-37-9
7-12	Totally sealed magnetic cow.	Selvin	M. H. Bull	7-38-9
7-12	E. Hafner standing in opening of tank portion of Van de Graaf generator.	Progress Report	R. F. Smith	7-39-9
7-12	Front plate of Van de Graaf generator.	Hafner	R. F. Smith	7-40-9
7-12	Tank portion of the Van de Graaf generator.	Hafner	R. F. Smith	7-41-9
7-12	Van de Graaf generator being assembled at Brookhaven.	Hafner	R. F. Smith	7-42-9
7-12	Brookhaven cyclotron.	Cyclotron	R. F. Smith	7-43-9
7-12	Brookhaven cyclotron with worker adjusting magnet test equipment.	Cyclotron	R. F. Smith	7-44-9
7-12	Knight at magnet in Nuclear Moments laboratory.	Nuclear Moments	R. F. Smith	7-45-9
7-12	Magnet in Nuclear Moments Laboratory.	Nuclear Moments	R. F. Smith	7-46-9
7-13	Specific activity of DNA-P of several tissues as percent of activity of tissue inorganic P.	Sokal Biology	P. Bennett	7-47-9
7-13	Specific activity of desoxyribose nucleic acid phosphorous in several tissues after a single injection of P32.	Sokal Biology	P. Bennett	7-48-9
7-13	Specific activity of ribose nucleic acid phosphorous in several tissues after a single injection of P32.	Sokal Biology	P. Bennett	7-49-9

Date	Caption	Dept.	Photographer	Number
7-13	Specific activity of tissue inorganic P after a single injection of P32 and some theoretical curves.	Sokal Biology	P. Bennett	7-50-9
7-13	Piccioni in front of his cosmic ray detection equipment.	Johnson Physics	R. F. Smith	7-51-9
7-13	Piccioni and group in front of cosmic ray detection equipment.	Johnson Physics	R. F. Smith	7-52-9
7-14	R. F. transformer for 3 Bev cosmotron.	Cosmotron	M. H. Bull	7-53-9
7-13	Smoke densitometer.	Dvorak	R. F. Smith	7-54-9
7-14	Dave Alburger shown with beta-ray spectograph.	Johnson Physics	J. F. Garfield	7-55-9
7-14	Dave Alburger shown with beta-ray spectograph.	Johnson Physics	J. F. Garfield	7-56-9
7-14	Slides for chemistry.	Turkevich	P. Bennett	7-57-9 7-58-9 7-59-9
7-15	Page 159 - Fiat Review.	ARBrown	Paul Simack .	7-60-9
7-18	Iodic acid dependance.	Kennedy	M. H. Bull	7-61-9
7-18	Iodic acid activity dependance at 25°C	Kennedy	M. H. Bull	7-62-9
7-18	Iodic acid activity dependance at 0° and 50°C.	Kennedy	M. H. Bull	7-63-9
7-18	Iodate ion dependance in 1.00 $\underline{f}$ HClO ₄ .	Kennedy	M. H. Bull	7-64-9
7-18	Iodate ion dependance in 0.50 $\underline{f}$ HClO ₄ .	Kennedy	M. H. Bull	7-65-9
7-18	Iodate ion dependance in 0.20 $\underline{f}$ HClO ₄ .	Kennedy	M. H. Bull	7-66-9
7-18	Figure 1 re Ilford Plates.	Dolmann	M. H. Bull	7-67-9
7-18	Figure 2 re Ilford Plates.	Dolmann	M. H. Bull	7-68-9
7-15	General view of workmen assembling the generator.	E Hafner	RJW and RFS	7-69-9
7-15	Front view of the Van de Graaf generator.	E Hafner	RJW and RFS	7-70-9
7-15	Laying tracks on approach to cyclotron magnet.	Cyclotron	RJW and RFS	7-71-9

Date	Caption	Dept.	Photographer	Number
7-15	E. Hafner at Van de Graaf generator.	E Hafner	RJW and RFS	7-72-9
7-19	R. F. transformer (drawing).	Boerner	Paul Simack	7-73-9
7-19	Cosmotron model in carpenter shop. (16x20 shop and 8 $\frac{1}{2}$ x11 JFG).	Cosmotron	RJW and RFS	7-74-9
7-19	Brookhaven cyclotron	Cyclotron	RJW and RFS	7-75-9 (*)
7-19	Section of cosmotron magnet being assembled and prepared for testing.	Cosmotron	JFG and RJW	7-76-9
7-19	Gamma irradiated tradescantia showing aperature in bud.	Chris Biology	J. F. Garfield	7-77-9
7-19	Showing detail of gamma irradiated tradescantia showing aperature in bud.	Chris Biology	J. F. Garfield	7-78-9
7-15	E. Hafner at Van de Graaf generator.	E Hafner	RJW and RFS	7-79-9
7-20	Concentration parts per million.	DeLaguna	Paul Simack	7-80-9
7-20	Top of scanning and angle measuring table showing controls. Knob on ex- treme upper left is for x movement of stage, calibrated dial below this is for fine adjustment of microscope and knob on extreme right if for y move- ment of microscope stage.	Dolmann	R. F. Smith	7-81-9
7-20	Scanning and angle measuring table for particle tracks. Microscopic image is projected onto ground glass on top of table.	Dolmann	R. F. Smith	7-82-9
7-20	Left - J. Kennedy Right - G. Friedlander in chemistry laboratory.	Chemistry	J. F. Garfield	7-83-9 and 7-84-9
7-21	Otto Hahn	Portrait	M. H. Bull	7-85-9
7-22	Figure One	Goldhaber	Paul Simack	7-86-9
7-22	Figure Two	Goldhaber	Paul Simack	7-87-9

Date	Caption	Dept.	Photographer	Number
7-22	Theoretical and experimental curves. P - 120 microns.	Wentink Koski	Paul Simack	7-88-9
7-22	Es equals 1100 volts/cm.	Wentink	Paul Simack	7-89-9
7-22	Stark effect in COS ₃ ⁴ at 23731 mc/sec	Koski	Paul Simack	7-90-9
7-22	Creep test apparatus number 1.	Vanderman	M. H. Bull	7-91-9
7-22	Cross section drawing of testing head for testing machine to operate inside pile.	Vanderman	M. H. Bull	7-92-9
7-22	Micro-barograph chart, No. 1090 B analysis run.	Met	M. H. Bull	7-93-9
7-22	Meteorology Group, Brookhaven National Laboratory, Hourly Observation.	Met	M. H. Bull	7-94-9
7-25	Frequency wave numbers cm ⁻¹ .	Schaeffer	M. H. Bull	7-95-9 7-96-9 7-97-9
7-25	Copy of star track for publication.	Orlowski	Paul Simack	7-98-9
7-25	Diagram of cosmic ray apparatus.	Piccioni	Paul Simack	7-99-9
7-26	Figure 2, Internal conversion elect- rons of Dy 165 (1.25 min).	Goldhaber	Paul Simack	7-100-9
7-26	Figure 3, Internal conversion elect- rons of Ir192 (1.5 min).	Goldhaber	Paul Simack	7-101-9
7-26	Glucose - Fructose <i>now in our files.</i> This negative is located in Biology.	Gibbs Biology	Biology	7-102-9
7-27	Figure 5-2 Delay microseconds.	Goldhaber	M. H. Bull	7-103-9
7-27	Isometric transition probabilities.	Goldhaber	M. H. Bull	7-104-9
7-27	Conversion electron spectrum of tellurium 121 and 123.	Goldhaber	M. H. Bull	7-105-9
7-28	Map of Bellport			
	Squares A-2 and A-3.	Maust	Paul Simack	7-106-9
7-28	Squares B-1 and B-2	Maust.	Paul Simack	7-107-9
7-28	Squares B-3 and B-4	Maust	Paul Simack	7-108-9
7-28	Square B-5	Maust	Paul Simack	7-109-9
7-28	Squares C-2 and C-3	Maust	Paul Simack	7-110-9
7-28	Squares C-4 and C-5	Maust	Paul Simack	7-111-9
7-28	Square D-2	Maust	Paul Simack	7-112-9
7-28	Squares D-3 and D-4	Maust	Paul Simack	7-113-9
7-28	Squares D-5 and D-6	Maust	Paul Simack	7-114-9
7-28	Square E-6	Maust	Paul Simack	7-115-9

Date	Caption	Dept.	Photographer	Number
7-28	Nuclear Moments Pattern.	Townes	A. R. Lasky	7-116-9
7-28	Nuclear Moments Pattern.	Townes	A R. Lasky	7-117-9
7-28	Unstable/stable.	Amrine	Paul Simack	7-118-9
7-28	Cosmic rays - Denver and Long Island.	Amrine	Paul Simack	7-119-9
7-28	X-ray	Amrine	Paul Simack	7-120-9
7-28	Angry sun.	Amrine	Paul Simack	7-121-9
7-28	Figure one.	Amrine	Paul Simack	7-122-9
7-28	Figure three.	Amrine	Paul Simack	7-123-9
7-28	Figure six.	Amrine	Paul Simack	7-124-9
7-28	Figure ten.	Amrine	Paul Simack	7-125-9
7-28	Atom burps.	Amrine	Paul Simack	7-126-9
7-28	Figure eighteen.	Amrine	Paul Simack	7-127-9
7-28	Figure twenty-one.	Amrine	Paul Simack	7-128-9
7-28	Figure twenty-three.	Amrine	Paul Simack	7-129-9
7-28	Pile - laboratories - accelerator.	Amrine	Paul Simack	7-130-9
7-28	Sherlock Holmes - Click, click.	Amrine	Paul Simack	7-131-9
7-28	Remote control.	Amrine	Paul Simack	7-132-9
7-28	Health Physics.	Amrine	Paul Simack	7-133-9
7-28	Radiation warning signs.	Amrine	Paul Simack	7-134-9
7-28	Badges must be worn.	Amrine	Paul Simack	7-135-9
7-28	ABC of radiation.	Amrine	Paul Simack	7-136-9
7-28	Iodine and radiation.	Amrine	Paul Simack	7-137-9
7-28	Radiation area.	Amrine	Paul Simack	7-138-9
7-28	Meteorology tower.	Amrine	Paul Simack	7-139-9
7-28	No eating or smoking.	Amrine	Paul Simack	7-140-9
7-28	Radiated daisy.	Amrine	Paul Simack	7-141-9
7-28	You can take it with you.	Amrine	Paul Simack	7-142-9
(7-118-9 thru 7-142-9 are taken from ABC of Radiation).				
7-20	Slide # A 1969-D (B) E140	Sparrow	R. F. Smith	7-143-9
7-20	Slide # A 1969-D-(A) E141	"	"	7-144-9

August

Date	Caption	Dept.	Photographer	Number
8-1	Barschall, et al unpublished. Fields, et al P. R. 71, 508 (1947) Zinn, et al P. R. 56, 260 (1939)	Goldsmith	Paul Simack	8-1-9
8-1	Figure one.	Pearlman	Paul Simack	8-2-9
8-1	Figure two.	Pearlman	Paul Simack	8-3-9
8-2	Organization chart.	APC	P. Bennett	8-4-9
8-1	Agregate components of pile concrete.	Inman	R. F. Smith	8-5-9 thru 8-13-9
8-3	Rate of energy loss of protons in argon.	Schwartz	Paul Simack	8-14-9
8-3	Range of protons or mesons in argon.	Schwartz	Paul Simack	8-15-9
8-3	Range and energy loss of protons in argon (500).	Schwartz	Paul Simack	8-16-9
8-3	Range and energy loss of protons in argon (60).	Schwartz	Paul Simack	8-17-9
8-3	Range and energy loss of protons in argon (36).	Schwartz	Paul Simack	8-18-9
8-3	Chart	Sachs	A. Lasky	8-19-9
8-3	Time - Course of distribution of tracer phosphate in plasma and liver. Sprague-Dawley rats.	Sachs	A. Lasky	8-20-9
8-3	Carworth rats.	Sachs	A. Lasky	8-21-9
8-3	Carworth rats.	Sachs	A. Lasky	8-22-9
8-3	Mr. and Mrs. Kerro Knox	Portrait	J. F. Garfield	8-23-9
8-3	Smiling Mr. and Mrs. Kerro Knox	Portrait	J. F. Garfield	8-24-9
8-4	Particle tracks - gray forming star. Photomicrograph made from Pellicle plate. Neg. Mag. 491.8 X, Print Mag. 983.6 X	Salant	R. F. Smith	8-25-9
8-4	N (t) for publication.	Orlowski	Paul Simack	8-26-9
8-5	Showing accident damage E-35207	Ware	J. F. Garfield	8-27-9
8-5	Showing accident damage E-35207	Ware	J. F. Garfield	8-28-9

Date	Caption	Dept.	Photographer	Number
8-8	Radiated tradescantia in greenhouse. Plants on extreme left have received lethal dose. Source is radium.	Sparrow	R. F. Smith	8-29-9
8-8	Interior of snack bar.	Cafeteria Swart	R. F. Smith & M. H. Bull	8-30-9
8-5	Autopsy (A-1) Cut away view showing tumor on right hip.	Locke	JFG and RJW	8-31-9
8-5	Autopsy (A-1) Overall view of cadaver.	Locke	JFG and RJW	8-32-9
8-9	Restaurant	Cafeteria Swart	R. F. Smith & R. J. Walton	8-33-9
8-9	Capt. Conrad (standing).	Portrait	Navy	8-34-9
8-9	Capt. Conrad (sitting).	Portrait	Navy	8-35-9
8-9	Smoke run 1	Met	Meteorology	8-36-9
8-9	Smoke run 2	Met	Meteorology	8-37-9
8-9	Smoke run 3	Met	Meteorology	8-38-9
8-9	Smoke run 4	Met	Meteorology	8-39-8
8-9	Smoke run 5	Met	Meteorology	8-40-9
8-9	Smoke run 6	Met	Meteorology	8-41-9
8-9	Smoke run 7	Met	Meteorology	8-42-9
8-9	Smoke run 8	Met	Meteorology	8-43-9
8-9	Smoke run 9	Met	Meteorology	8-44-9
8-9	Smoke run 10	Met	Meteorology	8-45-9
8-9	Smoke run 11	Met	Meteorology	8-46-9
8-9	Smoke run 12	Met	Meteorology	8-47-9
8-9	Map of Nassau County, New York, showing correlation of certain selected wells and borings.	DeLaguna	Paul Simack	8-48-9
8-9	Bottom half of mp. described above.	Geology	Paul Simack	8-49-9
8-9	Patch in corner of test bellows.	Gurinsky	R. F. Smith	8-50-9
8-9	General view of bellows testing equipment.	Gurinsky	R. F. Smith	8-51-9
8-5	Gamma radiation field.	Sparrow	R. J. Walton	8-52-9
8-9	Doris Kirby - Full face.	Locke	J. F. Garfield	8-53-9
8-9	Doris Kirby - Full face.	Locke	J. F. Garfield	8-54-9

Date	Caption	Dept.	Photographer	Number
8-16	Absorber units - nickel.	Livingston	M. H. Bull	8-102-9
8-16	Copper per 20 seconds.	Livingston	M. H. Bull	8-103-9
8-16	Specific ion curve for protons in aluminum.	Livingston	M. H. Bull	8-104-9
8-16	Aluminum counts per 10 seconds.	Livingston	M. H. Bull	8-105-9
8-17	Area monitoring shack at Manorville.	Monsta	J. F. Garfield	8-106-9
8-18	Copy of track and scale.	Orlowski	M. H. Bull	8-107-9
8-18	Copy of track, scale and detail of end.	Orlowski	M. H. Bull	8-108-9
8-18	Copy of track and scale.	Orlowski	M. H. Bull	8-109-9
8-18	Front view of double effect evaporator.	Manowitz	R. J. Walton	8-110-9
8-18	Side view of double effect evaporator.	Manowitz	R. J. Walton	8-111-9
8-22	Coincidence counters and synchroscope circuit (drawing).	Pidd	M. H. Bull	8-112-9
8-22	Thin foil parallel plate counter.	Pidd	M. H. Bull	8-113-9
8-24	Sand map of Brookhaven.	White-Bio	M. H. Bull	8-114-9
8-24	Figure 1 - Apparatus.	PRichards	A. Lasky	8-115-9
8-24	Percent shifts in metals.	Knight	A. Lasky	8-116-9
8-24	Actual shifts compared to line widths.	Knight	A. Lasky	8-117-9
8-24	Resonance frequencies and fields.	Knight	A. Lasky	8-118-9
8-24	Response of system to modulation.	Knight	A. Lasky	8-119-9
8-24	Block diagram of nuclear magnetic resonance system.	Knight	A. Lasky	8-120-9
8-25	Ferrite accelerating unit for cosmotron.	Cosmotron Plotkin	R. J. Walton	8-121-9
8-25	Tin-foil parallel plate counter.	Pidd	R. J. Walton	8-122-9
8-26	Copy of art work of semi-hot bench.			
	Figure 5 - Well.	Keyes	A. Lasky	8-123-9
8-26	Figure 7 A - Working space.	Keyes	A. Lasky	8-124-9
8-26	Figure 8 - Working space with tray.	Keyes	A. Lasky	8-125-9
8-26	Figure 6 A - Working space.	Keyes	A. Lasky	8-126-9

Date	Caption	Dept.	Photographer	Number
8-9	Doris Kirby - full front.	Locke	J. F. Garfield	8-55-9
8-9	Doris Kirby - full front.	Locke	J. F. Garfield	8-56-9
8-9	Doris Kirby - full side.	Locke	J. F. Garfield	8-57-9
8-9	Doris Kirby - full side.	Locke	J. F. Garfield	8-58-9
8-9	Smoke run 5	Met	Meteorology	8-59-9
8-9	Smoke run 6	Met	Meteorology	8-60-9
8-9	Smoke run 7	Met	Meteorology	8-61-9
8-9	Smoke run 8	Met	Meteorology	8-62-9
8-9	Smoke run 9	Met	Meteorology	8-63-9
8-9	Smoke run 10	Met	Meteorology	8-64-9
8-9	Smoke run 11	Met	Meteorology	8-65-9
8-9	Smoke run 12	Met	Meteorology	8-66-9
8-8	Overall views of the semi-hot bench.	Keyes	R. J. Walton	8-67-9 thru 8-70-9
8-10	Closeup of test bellows.	Gurinsky	R. F. Smith	8-71-9
8-10	General view of bellows testing equipment.	Gurinsky	R. F. Smith	8-72-9
8-9	Aerials of smoke run.	Met	R. J. Walton	8-73-9 thru 8-77-9
8-15	Nuclear magnetic resonance shift in copper.	Walt Knight	M. H. Bull	8-78-9
8-11	Potatoes, <u>Tradescantia</u> , snapdragons marigolds, Jimson weed growing at distances from 2 to 7 meters from a 20-curie gamma-ray source occupying the site marked on the metal tube at left. Growth appeared fairly normal at levels up to about 100 r per day, although closer examination showed effects in some plants. Mutations in corn were also observed.	Sparrow	Garfield & Walton	8-79-9 thru 8-89-9 (8-84-9)
8-16	gold.	Livingston	M. H. Bull	8-97-9
8-16	rhodium.	Livingston	M. H. Bull	8-98-9
8-16	tin.	Livingston	M. H. Bull	8-99-9
8-16	nickel.	Livingston	M. H. Bull	8-100-9
8-16	cobalt.	Livingston	M. H. Bull	8-101-9

Date	Caption	Dept.	Photographer	Number
8-26	Dr. Sharpe and duck.	Biology	R. J. Walton	8-127-9
8-24	Tritium filling assembly. - <i>Deleted</i>	Bernstein	Paul Simack	8-128-9 *
8-24	Counts vs voltage.	Bernstein	Paul Simack	8-129-9
8-24	Micro-moles Oak Ridge.	Bernstein	Paul Simack	8-130-9
8-24	Gain curve.	Bernstein	Paul Simack	8-131-9
8-24	Pulse height analyzer data.	Bernstein	Paul Simack	8-132-9
8-24	Filling line for CO ₂ and H ₂ S.	Bernstein	Paul Simack	8-133-9
8-24	Diagram - apparatus.	Bernstein	Paul Simack	8-134-9
8-24	Diagram - apparatus.	Bernstein	Paul Simack	8-135-9
8-30	A recording medium informationally matched to the ear.	Jacobsen	M. H. Bull	8-136-9
8-30	Schematic cross-section of the information surface.	Jacobsen	M. H. Bull	8-137-9
8-30	Relative number of pieces and bits in auditory information.	Jacobsen	M. H. Bull	8-138-9
8-30	Conventional representations of a signal.	Jacobsen	M. H. Bull	8-139-9
8-30	Frequency localization in a set of broadly tuned resonance.	Jacobsen	M. H. Bull	8-140-9
8-30	Total difference limens (D. L.'s) per signal.	Jacobsen	M. H. Bull	8-141-9
8-30	The informational capacity of auditory recording media.	Jacobsen	M. H. Bull	8-142-9
8-30	Elementary signals *.	Jacobsen	M. H. Bull	8-143-9
8-30	The Gabor informational representation.	Jacobsen	M. H. Bull	8-144-9
8-30	Efficiency of the ear in detecting elementary signals.	Jacobsen	M. H. Bull	8-145-9
8-30	Schematic diagram of the internal ear. The cochlea is represented straight instead of coiled.	Jacobsen	M. H. Bull	8-146-9
8-30	Diagrams of sections thru the cochlea (A and B).	Jacobsen	M. H. Bull	8-147-9
8-30	The localization of frequency reception on the basilar membranes of man and guinea pig.	Jacobsen	M. H. Bull	8-148-9
8-30	Axial section of the cochlea of man.	Jacobsen	M. H. Bull	8-149-9
8-30	Diagrammatic section thru a portion of the human cranium to show the parts of the ear.	Jacobsen	M. H. Bull	8-150-9
8-30	Spectrograms made with the first lab model assembled from available equipment.	Jacobsen	M. H. Bull	8-151-9
8-30	Some additional voice sounds.	Jacobsen	M. H. Bull	8-152-9
8-31	Estimate of the total information from the human ear by the number of distinguishable tones.	Jacobsen	M. H. Bull	8-153-9

* Deleted, 7/12/50 per

Date	Caption	Dept.	Photographer	Number
8-31	Estimate of the total information from the human ear by the efficacy of perception of logons.	Jacobsen	M. H. Bull	8-154-9
8-31	The informational capacity of various channels.	Jacobsen	M. H. Bull	8-155-9
8-30	Photomicrographs of cloud chamber tracks (Group II) 2mm - 107 mm.	O'Neil	R. F. Smith	
8-30	Strip 687 Frame 9080			8-156-9
	687 9087			8-157-9
	687 9090			8-158-9
	688 9103			8-159-9
	689 9112			8-160-9
	689 9113			8-161-9
	690 9123			8-162-9
	692 9138			8-163-9
	693 9146			8-164-9
	693 9153			8-165-9
	693 9154			8-166-9
8-31	Cosmotron - Brookhaven National Lab. Design data 8-31-49.	Cosmotron	A. Lasky	8-167-9
8-31	Properties of typical ferrite for cosmotron induction accelerator.	Cosmotron	A. Lasky	8-168-9
8-31	Van de Graaff.	Haworth	A. Lasky	8-169-9
8-31	Block diagram of radio frequency system.	Haworth	A. Lasky	8-170-9
8-31	Full scale operating cycle.	Haworth	A. Lasky	8-171-9
8-31	Load control, etc.	Haworth	A. Lasky	8-172-9
8-31	Magnetic field vs radial distance.			
	Full scale uncorrected.	Haworth	A. Lasky	8-173-9
8-31	Full scale cycle uncorrected.	Haworth	A. Lasky	8-174-9
8-31	Impulses A, B, C.	RichardsP	M. H. Bull	8-175-9

September

Date	Caption	Dept.	Photographer	Number
9-1	Five diesel generators for the high pressure cloud chamber now under construction.	Cloud Chamber	RJW and RFS	9-1-9
9-1	Testing magnet sections for the cosmotron.	Cosmotron	RJW and RFS	9-2-9
9-1	Model of generator room for the cosmotron.	Cosmotron	RJW and RFS	9-3-9
9-1	Model of cosmotron magnet.	Cosmotron	RJW and RFS	9-4-9
9-1	Row of cosmotron magnet sections in a line behind the cosmotron building.	Cosmotron	RJW and RFS	9-5-9
9-1	Technician checking working model of the cosmotron magnet.	Cosmotron	RJW and RFS	9-6-9
9-1	Frame for winding coils for the cosmotron magnet.	Cosmotron	RJW and RFS	9-7-9
9-1	Design data - Berkley bevatron.	Haworth	A. Lasky	9-8-9
9-1	Final version: Gap is $5\frac{1}{2}$ x 1.1 ft.	Haworth	A. Lasky	9-9-9
9-2	Photomicrographs of cloud chamber tracks. Group I	O'Neil	M. H. Bull	9-10-9 thru 9-20-9
9-6	Formula	Turkevich	M. H. Bull	9-21-9
9-6	Unactivated charcoal - activated charcoal.	Turkevich	M. H. Bull	9-22-9
9-6	A - Acetone resevoir B - Deuterium resevor C - Catalyst chamber, etc.	Turkevich	M. H. Bull	9-23-9
9-6	Polydeutero propane 100 mm gas from acetone reduction.	Turkevich	M. H. Bull	9-24-9
9-6	Super spectre carbon.	Turkevich	M. H. Bull	9-25-9
9-6	Deutero isopropanol.	Turkevich	M. H. Bull	9-26-9
9-6	Isopropanol.	Turkevich	M. H. Bull	9-27-9
9-6	Equipment and apparatus.	Met	Meteorology	9-28-9 thru 9-33-9
9-7	Paul Richards, Earl Hays and Lincoln Smith with magnetic sphere for time of flight mass spectrometer.	Physics	J. F. Garfield	9-34-9
9-7	Graph for publication - C*.	Snyder	P. Simack	9-35-9
9-7	δ equals 1 thru δ equals 20.	Snyder	P. Simack	9-36-9
9-7	ϵ equals .25 thru ϵ equals 10.0	Physics	P. Simack	9-37-9

Date	Caption	Dept.	Photographer	Number
9-8	Slide number A-71-80#4, Negative Number E55.	Sparrow	Biology	9-38-9
9-8	Slide number A-1459C, Negative Number E93. (These appeared in the Sixth Semi-annual Report of the AEC, July 1949).	Sparrow	Biology	9-39-9
9-8	I Reduction in a flow system at -77°C .	Friedman	M. H. Bull	9-40-9
9-8	Table I - Ion intensity.	Friedman	M. H. Bull	9-41-9
9-8	Table II - Distribution of Polydeutero propanes.	Friedman	M. H. Bull	9-42-9
9-8	Table III - Relative ion intensity (33-26).	Friedman	M. H. Bull	9-43-9
9-8	47 thru 40.	Friedman	M. H. Bull	9-44-9
9-8	62 thru 57.	Friedman	M. H. Bull	9-45-9
9-8	Table IV - Relative ion intensity 33 thru 27.	Friedman	M. H. Bull	9-46-9
9-8	49 thru 41.	Friedman	M. H. Bull	9-47-9
9-8	64 thru 58.	Friedman	M. H. Bull	9-48-9
9-8	Chart - Run No. -- Temp.	Turkevich	M. H. Bull	9-49-9
9-8	Smoke generating system number one.	Met	Meteorology	9-50-9
9-8	Smoke generating system number two.	Met	Meteorology	9-51-9
9-8	Smoke generating system number three.	Met	Meteorology	9-52-9
9-8	Smoke generating system number four.	Met	Meteorology	9-53-9
9-8	Smoke generating system number five.	Met	Meteorology	9-54-9
9-8	Smoke generating system number six.	Met	Meteorology	9-55-9
9-8	Smoke generating system number seven.	Met	Meteorology	9-56-9
9-8	Smoke generating system number eight.	Met	Meteorology	9-57-9
9-8	Smoke generating system number nine.	Met	Meteorology	9-58-9
9-8	Smoke generating system number ten.	Met	Meteorology	9-59-9
9-8	Smoke generating system number eleven.	Met	Meteorology	9-60-9
9-8	Smoke generating system number twelve.	Met	Meteorology	9-61-9
9-9	Gain curve, CO_2 - CH_4 Prop. Counter, Model 162.	Bernstein	M. H. Bull	9-62-9
9-9	Micro Moles Oak Ridge BaCO_3 .	Bernstein	M. H. Bull	9-63-9
9-9	Counts vs voltage, Idl 162 - Full gain. June 6, 1949.	Bernstein	M. H. Bull	9-64-9
9-2	Deep well being dug near the entrance at North Gate for use by the Geology department.	Geology	R. J. Walton	9-65-9 and 9-66-9
9-9	Cloud chamber tracks #4974.	O'Neil	Paul Simack	9-67-9 and 9-68-9

Date	Caption	Dept.	Photographer	Number
9-9	Accident damage to E-35211.	Ware	J. F. Garfield	9-69-9
9-8	General view of the Research Library.	Library	RJW and RFS	9-70-9
9-1	G E. mass spectograph.	Chem	Smith and	9-71-9
9-1	G. E. mass spectograph.	Chem	Walton	9-72-9
9-13	2 sigma mesons from star.	Salant	R. F. Smith	9-73-9
9-13	New cloud chamber in the foreground with the old one in the rear.	Cloud Chamber	RJW and RFS	9-74-9
9-7	Cosmotron model.	Cosmotron	RJW and RFS	9-75-9
9-13	Formula for slides.	Turkevich	M. H. Bull	9-76-9 thru 9-79-9
9-13	Minimum ionization broom event.	Salant	R. F. Smith	9-80-9
9-13	Delay error distribution.	Madanski	M. H. Bull	9-81-9
9-13	Delay error distribution for 1000 volt overvoltage.	Madanski	M. H. Bull	9-82-9
9-13	Sweep position in arbitrary units.	Madanski	M. H. Bull	9-83-9
9-14	Plate KP - 17, Page 18, Mic. #23471.	Salant	R. F. Smith	9-84-9 <i>bot</i>
9-15	Scope pulses.	PRichards	A. Lasky	9-85-9
9-15	Pulses.	Madanski	M. H. Bull	9-86-9
9-15	Mechanisms (Day and Ingold) Bimolecular.	Long-Chem	M. H. Bull	9-87-9
9-15	Mechanisms (Day and Ingold) Unimolecular.	Long-Chem	M. H. Bull	9-88-9
9-15	Sigma meson.	Salant	R. F. Smith	9-89-9

Date	Caption	Dept.	Photographer	Number
9-16	Energy and entropy of activation.	Dodson	M. H. Bull	9-90-9
9-16	Thallous and Thalllic species possibly present in perchlorate solutions containing added chloride (total acid 6 formal).	Dodson	M. H. Bull	9-91-9
9-16	Estimated association constants.	Dodson	M. H. Bull	9-92-9
9-16	Comparison of data for rate function f.	Dodson	M. H. Bull	9-93-9
9-16	Equilibrium constants for butyrolactone.	Long-Chem	M. H. Bull	9-94-9
9-16	Equilibrium constants for butyrolactone Kc.	Long-Chem	M. H. Bull	9-95-9
9-16	Hydrolysis of butyrolactone.	Long-Chem	M. H. Bull	9-96-9
9-16	Rate of hydrolysis of lactone at 25°C.	Long-Chem	M. H. Bull	9-97-9
9-16	Potentiometric titration of thallous. thallic couple in perchloric acid with HCl.	Dodson	M. H. Bull	9-98-9
9-16	Rate function at 50.0°C in perchloric acid solutions.	Dodson	M. H. Bull	9-99-9
9-16	Acidity function HClO_4 NaClO_4 mixtures 25°C.	Dodson	M. H. Bull	9-100-9
9-16	Rate function vs $1/H$ at Total Perchlorate equals 6.0 f.	Dodson	M. H. Bull	9-101-9
9-16	Rate function vs chloride 31.8°C.	Dodson	M. H. Bull	9-102-9
9-16	Absorption spectra of 3.4×10^{-4} f.	Dodson	M. H. Bull	9-103-9
9-19	Air sampling apparatus in the monitoring shack.	Foster	J. F. Garfield	9-104-9
9-19	Detail of air sampling apparatus in the monitoring shack.	Foster	J. F. Garfield	9-105-9
9-19	Pump for air sampling apparatus in the monitoring shack.	Foster	J. F. Garfield	9-106-9
9-20	Standard frequency source. 20 KC and 333C schematic.	Kramer	M. H. Bull	9-107-9
9-20	Control corn seedling in greenhouse.	Singleton	R. F. Smith	9-108-9
9-20	Corn seedling in greenhouse after being radiated in gamma field for a period of three days. Right, two day life.	Singleton	R. F. Smith	9-109-9
9-20	Corn seedling in greenhouse. Plants have previously been radiated in the gamma field for four days.	Singleton	R. F. Smith	9-110-9

Date	Caption	Dept.	Photographer	Number
9-20	Closeup of corn seedlings around the source in radiation field.	Singleton	R. F. Smith	9-111-9
9-20	General view of corn seedlings being radiated in experimental radiation field.	Singleton	R. F. Smith	9-112-9
9-20	Electronic dust sampler showing side and interior view.	Foster	R. F. Smith	9-113-9
9-20	Top view of electronic dust sampler.	Foster	R. F. Smith	9-114-9
9-21	Alignment chart, WBO, Upton, 9-13-49.	Belfour	Paul Simack	9-115-9
9-21	Alignment chart relating, WBO, Upton, New York, 9-13-49.	Belfour	Paul Simack	9-116-9
9-15	Face plate hookup for electromagnetic pump.	Fuller	R. J. Walton	9-117-9
9-15	General view of electromagnetic set up.	Fuller	R. J. Walton	9-118-9
9-15	Horseshoe-shaped chamber for the electromagnetic pump.	Fuller	R. J. Walton	9-119-9
9-15	Electromagnetic pump with the horse-shoe chamber in place.	Fuller	R. J. Walton	9-120-9
9-20	Photomicrograph of silver surface. Negative magnification 85 X Print magnification 170 X.	G Johnson	R. F. Smith	9-121-9
9-20	Photomicrograph of silver surface. Oil imm. oblique illumination. Negative magnification 787 X Print magnification 1574 X.	Physics G Johnson	R. F. Smith	9-122-9
9-20	Photomicrograph of silver surface. Oblique illumination. Negative magnification 425 X Print magnification 850 X.	G Johnson	R. F. Smith	9-123-9
9-20	Photomicrograph of silver surface. Negative magnification 425 X Print magnification 850 X.	G Johnson	R. F. Smith	9-124-9
9-20	Photomicrograph of silver surface. Ultra-Pak illumination, dark field. Negative magnification 135 X Print magnification 270 X.	G Johnson	R. F. Smith	9-125-9
9-21	C P of proton in Mev.	ELChurch	M. H. Bull	9-126-9
9-21	KE of electron in Mev.	Physics	M. H. Bull	9-127-9
9-21	KE of electron in Mev.	Harvard	M. H. Bull	9-128-9
9-21	E-P angle.	ELChurch	M. H. Bull	9-129-9
9-21	CP of electron in Mev.	Physics	M. H. Bull	9-130-9
9-21	E-P angle.	Harvard	M. H. Bull	9-131-9

Date	Caption	Dept.	Photographer	Number
9-22	Tritium filling assembly.	Bernstein	Paul Simack	9-132-9
9-22	Beta spectrum H-5CM Diam. tube pulse height analyzer, HV 3500 volts, non-overloading amplifier, 5-24-49.	Bernstein	Paul Simack	9-133-9
9-22	Counts vs voltage Idl 162 - Full gain June 6, 1949.	Bernstein	Paul Simack	9-134-9
9-22	Body injury and protein synthesis diet methionine sulfur normally retained.	Madden	Paul Simack	9-135-9
9-22	Number of neutrons.	Hughes	Paul Simack	9-136-9
9-22	Depletion plasma protein reserves. Dog 36-196.	Madden	Paul Simack	9-137-9
9-22	Low plasma protein production. Dog 36-211.	Madden	Paul Simack	9-138-9
9-22	Nitrogen and sulfure excretion increased during acute injury.	Madden	Paul Simack	9-139-9
9-22	Body injury and protein synthesis diet methionine sulfur incorporated into plasma and tissue proteins.	Madden	Paul Simack	9-140-9
9-22	Plasma protein flows out of circulation during hypoproteinemia.	Madden	Paul Simack	9-141-9
9-22	Incorporation of methionine sulfur into plasma proteins, of control and hepatectomized dogs.	Madden	Paul Simack	9-142-9
9-21	Aerials of smoke run.	Met	R. J. Walton	9-143-9 thru 9-157-9
9-26	Corn seedlings being radiated in the gamma field.	Singleton	R. F. Smith	9-158-9
9-26	General view of the isotope bottling machine.	Turovlin	R. J. Walton	9-159-9 thru 9-165-9
9-29	Ground floor - cold area. Cutaway view of cold area, hot lab.	Pruss	Paul Simack	9-166-9
9-29	Main floor - hot area. Cutaway view of hot area, hot lab.	Pruss	Paul Simack	9-167-9
9-29	Figure 3 - Thermocouple unit.	Garth	Paul Simack	9-168-9

Date	Caption	Dept.	Photographer	Number
9-30	Interiors and exteriors of houses at Stony Brook.	Meador	R. J. Walton	9-169-9 thru 9-179-9
9-49	Unloading the multisphere.	Cyclotron Cosmos	J. F. Garfield	9-180-9 & 9-181-9
9-24	Slide # A 2001-F E148	Sparrow	R. F. Smith	9-182-9
9-24	Slide # A 1839H-B E146	"	"	9-183-9
9-24	Slide # A 1839 H E145	"	"	9-184-9
9-24	Slide # A 1839H E144	"	"	9-185-9
9-24	Slide # A 1839-H E 147	"	"	9-186-9
9-24	Slide # A 1839-G 149	"	"	9-187-9

October

Date	Caption	Dept.	Photographer	Number
10-3	Section at 18 in. from east face.	Gurinsky	P. Simack	10-1-9
10-4	#1 As strained 33% after 700°C. - 15 min.	Kammerer	P. Simack	10-2-9
10-4	#2 580°C. - 3 sec. in lead bath.	Kammerer	P. Simack	10-3-9
10-4	#7 900°C. 10 min. in lead bath.	Kammerer	P. Simack	10-4-9
10-4	Specimen of Martensite.	Kammerer	P. Simack	10-5-9
10-4	Specimen of cold rolled steel.	Kammerer	P. Simack	10-6-9
10-4	Corn seedlings that have been radiated by the 20 Curie source in gamma field with control.	Singleton	R. F. Smith	10-7-9
10-4	Closeup of corn seedlings being radiated by the 20 Curie source in gamma field.	Singleton	R. F. Smith	10-8-9
10-4	Corn seedling being radiated in the gamma field.	Singleton	R. F. Smith	10-9-9
10-4	36 inch stalk of corn that produced a 12 inch ear.	Singleton	R. F. Smith	10-10-9
10-4	Radiated corn control and sixteen days.	Singleton	R. F. Smith	10-11-9
10-4	Group of scientists gathered at the BNL corn conference.	Singleton	R. F. Smith	10-12-9
10-4	Group with Dr. Singleton from corn conference.	Singleton	R. F. Smith	10-13-9
10-4	Group of three doctors from corn conference.	Singleton	R. F. Smith	10-14-9
10-5	Rescue truck with doors closed.	Fire	R. Walton	10-15-9
10-5	Rescue truck with doors open.	Fire	R. Walton	10-16-9
10-6	Dr. Moses' ultra-violet photometric apparatus.	Moses and Sparrow	R. F. Smith	10-17-9
10-6	Corn seedlings in the greenhouse showing control and radiated plants. Left to right: Control, twenty days and twenty-four days.	Singleton	R. F. Smith	10-18-9
10-6	Corn seedlings receiving a lethal dose of radiation in gamma field from 20 Curie radio cobalt source.	Singleton	R. F. Smith	10-19-9
10-6	Dosage - Distance Relationships.	Sparrow	P. Simack	10-20-9
10-6	Copy of: 8-85-9 and 8-89-9 8-87-9 and 8-22-9	Sparrow	P. Simack	10-21-9
10-6	Copy of: 8-81-9 and 8-80-9	Sparrow	P. Simack	10-22-9
10-6	Electron momentum 1 equals 753 Hp.	Alburgher	P. Simack	10-23-9
10-6	Electron momentum 1.0 equals 470 Hp.	Alburgher	P. Simack	10-24-9
10-6	Electron energy (kev.)	Alburgher	P. Simack	10-25-9
10-6	Electron momentum 1.0 equals 776 Hp.	Alburgher	P. Simack	10-26-9

Date	Caption	Dept.	Photographer	Number
10-7	Photomicrograph of welded metal - good weld. Neg. Mag. 70X Print Mag. 140X	F. Lee	R. F. Smith	10-27-9
10-7	Photomicrograph of welded metal - bad weld. Neg. Mag. 70X Print Mag. 140X	F. Lee	R. F. Smith	10-28-9
10-7	Broom event. 35.5 X 110.8 Y	Salant	P. Simack	10-29-9
10-10	Varred earth sample.	Geology	R. F. Smith	10-30-9
10-10	Macrophoto of bad welded metal.	F. Lee	R. F. Smith	10-31-9
10-10	Macrophoto of good welded metal.	F. Lee	R. F. Smith	10-32-9
10-10	International News photo of the biology gamma field.	Biology	International News photo	10-33-9
10-4	Photo elastic test of graphite model. Unstrained.	Gurinsky	J. F. Garfield	10-34-9
10-4	Photo elastic test of graphite model. Strained.	Gurinsky	J. F. Garfield	10-35-9
10-10	Graph - Intensity vs. Mirror angle, minutes.	Johnson	P. Simack	10-36-9
10-10	Drawing - Slow neutrons, shield and target.	Johnson	P. Simack	10-37-9
10-10	Graph - d_2^2 (g/cm ²) vs. Energy (mev.)	Friedlander	P. Simack	10-38-9
10-10	Graph - Energy (mev.) vs. Range in Al (gm/cm ²).	Friedlander	P. Simack	10-39-9
10-10	Graph - Counts per minute vs. ml of 0.1 M Na ₂ HPO ₄ added.	Friedlander	P. Simack	10-40-9
10-10	Graph - Activity (log scale) vs. Absorber Thickness. (mg/cm ²) (linear scale).	Friedlander	P. Simack	10-41-9
10-10	Graph - Number vs. Energy.	Friedlander	P. Simack	10-42-9
10-10	Graph - Activity (on log scale) vs. Time (hr.).	Friedlander	P. Simack	10-43-9
10-10	Graph - Counting Rate vs. Applied Voltage.	Friedlander	P. Simack	10-44-9
10-10	Partial chart of some radioactive elements.	Friedlander	P. Simack	10-45-9
10-10	Formula - Analysis by Isotope Dilution.	Friedlander	P. Simack	10-46-9
10-10	Formula - Activation Analysis.	Friedlander	P. Simack	10-47-9
10-10	Chart - Saturation Activities - in disintegrations per minute per microgram.	Friedlander	P. Simack	10-48-9

Date	Caption	Dept.	Photographer	Number
10-10	Formula - Cross Section.	Friedlander	P. Simack	10-49-9
10-10	Drawing - Radiometric Titration.	Friedlander	P. Simack	10-50-9
10-10	Graph - Activation Analysis of Erbium Oxide.	Friedlander	P. Simack	10-51-9
10-11	Meteorology Smoke Run (10-59-9, 10-68-9, 10-69-9 No Neg.).	Met.	Meteorology	10-52-9 thru 10-70-9
10-13	House D-1 for Hawkins Hill.	Meador	P. Simack	10-71-9
10-13	Right bank of bumpers and gears to large door of cyclotron chamber.	Merkle	R. F. Smith	10-72-9
10-13	Drive shaft to gears and bumpers stops for large doors to cyclotron chamber (left bank).	Merkle	R. F. Smith	10-73-9
10-13	Motor for large door to cyclotron chamber.	Merkle	R.F. Smith	10-74-9
10-13	Motor and mechanical assembly to left small door to cyclotron.	Merkle	R. F. Smith	10-75-9
10-13	One of the steel girders supporting large door to cyclotron chamber.	Merkle	R. F. Smith	10-76-9
10-13	Gate housing for small door to cyclotron chamber showing door down or in open position.	Merkle	R. F, Smith	10-77-9
10-13	Small door to the cyclotron chamber closed.	Merkle	R. F. Smith	10-78-9
10-13	Large door to the cyclotron chamber closed.	Merkle	R. F. Smith	10-79-9
10-13	Small door to the cyclotron chamber half open.	Merkle	R. F. Smith	10-80-9
10-13	Small door to the cyclotron chamber open.	Merkle	R. F. Smith.	10-81-9
10-14	Waste handling system drawing.	Manowitz	P. Simack	10-82-9
10-14	Relative specific activity vs. hours after injection.	Sachs	P. Simack	10-83-9
10-11	Erecting steelwork for the cosmotron building.	Cosmo	R. Walton	10-84-9 thru 10-88-9
10-12	Autopsy Number Two.	Medical	J. F. Garfield and R. Walton	10-89-9 thru 10-94-9
10-17	Diamagnetic correction, Δ_z , in percent vs. atomic number Z.	Poss	P. Simack	10-95-9

Date	Caption	Dept.	Photographer	Number
10-17	Area Survey Counting Room. Beta-Gamma Counter.	M. Weiss	R. J. Walton	10-96-9
10-17	Area Survey Counting Room. Scintillation Alpha Counter.	M. Weiss	R. J. Walton	10-97-9
10-17	Area Survey Laboratory. Iodine Extraction Process.	M. Weiss	R. J. Walton	10-98-9
10-17	Glass equipment for Biology.	Mrs. Holt	R. J. Walton	10-99-9
10-11	Aerial of Cosmotron Project.	Cosmotron	R. J. Walton	10-100-9
10-17	Meteorology Smoke Run.	Meteorology	Meteorology	10-101-9 thru 10-105-9
10-18	Liquid Waste System: Flow and Balance Sheet.	Manowitz	P. Simack	10-106-9
10-18	Copy of Pile Building and Laboratories.	Pile	Darkroom	10-107-9
10-18	This negative has been transferred to Pile Progress.	Vassilopoulos	R. F. Smith	10-108-9
10-19	Dr. Warren Miller.	Portrait	J. F. Garfield	10-109-9
10-19	Dr. Warren Miller.	Portrait	J. F. Garfield	10-110-9
10-20	Fig. 1 (Case 1). Eleven days after exposure aerly vesicles were visible on the second fingers of both hands./	Balber	C. Lee	10-111-9
10-20	Fig. 2 (Case 1). Eighteen days after exposure there were large, tense, confluent bullae which followed the secondary erythema.	Balber	C. Lee	10-112-9
10-20	Fig. 3 (Case 1). Eighty-two days after exposure.	Balber	C. Lee	10-113-9
10-20	Fig. 4 (case 1). One hundred and fifty- eight days after exposure.	Balber	C. Lee	10-114-9
	(All above were prepared by Elmer Donor of Los Alamos Scientific Lab appearing in the <u>Journal of the American Medical Association</u> , Sept. 24, 1949).			
10-20	Alpha Scintillation Counter.	Bernstein (Electronics)	J. F. Garfield	10-115-9

Date	Caption	Dept.	Photographer	Number
10-20	Figure 1 - Solenoid.	Selvin	P. Simack	10-116-9
10-20	Figure 2 - Spindle/	Selvin	P. Simack	10-117-9
10-20	Figure 1 - Totally sealed magnetic cow.	Selvin	P. Simack	10-118-9
10-20	Figure 3 - Totally sealed magnetic cow.	Selvin	P. Simack	10-119-9
10-20	Radioactive Iron - Fe 59.	Thiesmeyer	P. Simack	10-120-9
10-20	Radioactive Iodine - I 131.	Thiesmeyer	P. Simack	10-121-9
10-20	Radioactive Phosphorus - P 32.	Thiesmeyer	P. Simack	10-122-9
	(All above For Official Use - Distributed by Atomic Energy Commission; Isotopes Division, Oak Ridge, Tenn.)			
10-20	Graphite Low Energy Experimental Pile Control Room. (Crown Copyright reserved. If no acknowledgement is made to this effect a publication fee must be paid to H.M.S.O.).	Thiesmeyer	P. Simack	10-123-9
10-20	Photo No. 13. (Sept. 23, 1948).	Thiesmeyer	P. Simack	10-124-9
10-20	SC 250283 (#5 of 17 photos). Radioisotopes Applied to Peacetime Development at Oak Ridge, Tenn. Operator removes the can radioisotopes from pile. Health physicist is monitoring sample.	Thiesmeyer	P. Simack	10-125-9
10-20	<u>Popular Science Monthly</u> Photo by H. P. Luckett.	Thiesmeyer	P. Simack	10-126-9
10-20	Chalk River, Ontario. A worker at the Chalk River Atomic Energy Plant about to enter active area, puts cotton bags over shoes to protect against contamination.	Thiesmeyer	P. Simack	10-127-9
10-20	Information Division, Radiation Lab, University of California, Berkeley, California. Dr. MacMillan at Synchrotron Control Panel.	Thiesmeyer	P. Simack	10-128-9
10-20	Norman Erway of the Argonne National Laboratory is operating the elaborate vacuum system used to measure the vapor pressure of radioactive materials. Photo #9.	Thiesmeyer	P. Simack	10-129-9

Date	Caption	Dept.	Photographer	Number
10-20	Dr. Arthur H. Jaffey (5416 S. Woodlawn Avenue, Chicago, Illinois), is shown as he records readings of the pulse analyzer, an instrument which checks the mean energy output of radioactive particles and also identifies the source of the energy, both quantitatively and qualitatively. Photo # 17.	Thiesmeyer	P. Simack	10-130-9
10-18	Interior of Stony Brook Housing.	Bob Chase	J. F. Garfield	10-131-9
10-18	Interior of Stony Brook Housing.	Bob Chase	J. F. Garfield	10-132-9
10-20	Meteorology Wind Direction Indicator.	Met. Dan Mazzarella	R. Walton	10-133-9 thru 10-135-9
10-20	Date of Sampling.	Singleton	M. Bull	10-136-9
10-20	Date of Sampling.	Singleton	M. Bull	10-137-9
10-20	Refractive Index.	Singleton	M. Bull	10-138-9
10-20	Date of Sampling.	Singleton	M. Bull	10-139-9
10-20	Date of Sampling/	Singleton	M. Bull	10-140-9
10-20	Refractive Index.	Singleton	M. Bull	10-141-9
10-20	Refractive Index.	Singleton	M. Bull	10-142-9
10-20	NaCl on Ag surface Photomicrograph Neg. Mag. 400X Print Mag. 1000X Showing crystals before absorbing moisture.	G. Johnson	R. F. Smith	10-143-9
10-20	NaCl on Ag surface Photomicrograph. Neg. Mag. 400X Print Mag. 1000X Crystals after absorbing moisture.	G. Johnson	R. F. Smith	10-144-9
10-20	NaCl on Ag surface Photomicrograph. Neg. Mag. 400X Print Mag. 1000X Crystals after absorbing moisture:	G. Johnson	R. F. Smith	10-145-9
10-20	NaCl on Ag surface Photomicrograph. Neg. Mag. 400X Print Mag. 800X	G. Johnson	R. F. Smith	10-146-9
10-20	Damselfish caught in Bikini Lagoon after atomic explosion. (AEC-45-3221A)..	Thiesmeyer	P. Simack	10-147-9

Date	Caption	Dept.	Photographer	Number
10-20	Dr. John W. Mitchell of the Plant Industry Section, USDA, Beltsville, Md., sections treated plants so that radio-activity of each part can be measured so as to record the movement the growth regulator made through the plant. (AEC-48-3751).	Thiesmeyer	P. Simack	10-148-9
10-20	Fertilizer utilization by corn plants: Scientist checking with a portable Geiger counter to determine if the "Tagged" fertilizer has been adequately covered by soil to make it harmless, (AEC-48-3756).	Thiesmeyer	P. Simack	10-149-9
10-20	Worker at Los Alamos Scientific Laboratory preparing samples containing radioactive Carbon (Carbon 14) for use in tracer research. (AEC-49-3820).	Thiesmeyer	P. Simack	10-150-9
10-20	A complex new tool for handling radioactive materials is the "master-slave manipulator," which was developed at the Argonne National Laboratory in Chicago. (AEC-49-3816).	Thiesmeyer	P. Simack	10-151-9
10-20	Oak Ridge Water contaminated by radioactive materials is held in ponds where instruments monitor it continuously, as the stream cascades through a sluice-box. (AEC-49-3764).	Thiesmeyer	P. Simack	10-152-9
10-20	Dr. Earl Hyde of Chicago is shown manipulating the remote control mechanisms by which he handles the "hot" materials behind the walls. He observes the operation in the mirrors overhead and through the periscope at his left. (AEC-48-180).	Thiesmeyer	P. Simack	10-153-9
10-20	View inside a "hot" cell as seen through a periscope shows complex equipment necessary for chemically processing highly radioactive materials behind concrete walls. (AEC-47-102).	Thiesmeyer	P. Simack	10-154-9

Date	Caption	Dept.	Photographer	Number
10-20	Further steps in the extraction of separate fission elements for experimental uses. Dr. Tompkins (Clinton Laboratory) demonstrates for Dr. Cohn (Clinton Laboratory). (SC 243891).	Thiesmeyer	P. Simack	10-155-9
10-20	$(CH_3)_2 CDOH$ 15% CCl_4 vs. CCl_4 .	Friedman	P. Bennett	10-156-9
10-20	Diagramatic Cross Section - Long Island.	Manowitz	P. Bennett	10-157-9
10-21	Chart - $\bullet Cu$, xFe , $\circ Cr$.	Turkevich	M. Bull	10-158-9
10-21	Propane.	Turkevich	M. Bull	10-159-9
10-21	Isobutane/	Turkevich	M. Bull	10-160-9
10-21	Methane.	Turkevich	M. Bull	10-161-9
10-21	Cyclopentane.	Turkevich	M. Bull	10-162-9
10-21	Ethylene.	Turkevich	M. Bull	10-163-9
10-21	Isopentane.	Turkevich	M. Bull	10-164-9
10-21	n-Butane.	Turkevich	M. Bull	10-165-9
10-21	Neopentane.	Turkevich	M. Bull	10-166-9
10-21	Butane-1.	Turkevich	M. Bull	10-167-9
10-21	Cyclohexane.	Turkevich	M. Bull	10-168-9
10-21	Toluene.	Turkevich	M. Bull	10-169-9
10-21	Benzene.	Turkevich	M. Bull	10-170-9
10-21	Ethane.	Turkevich	M. Bull	10-171-9
10-21	Methyl Heptane.	Turkevich	M. Bull	10-172-9
10-21	n-Octane.	Turkevich	M. Bull	10-173-9
10-21	n-Pentane.	Turkevich	M. Bull	10-174-9
10-21	Sodium Chloride (NaCl) on silver (Ag) surface - Photomicrograph. Neg. Mag. 400X Print Mag. 800X	G. Johnson	R. F. Smith	10-175-9
10-21	Sodium Chloride (NaCl) on silver (Ag) surface - Photomicrograph. Neg. Mag. 75X Print Mag. 150X	G. Johnson	R. F. Smith	10-176-9
10-21	Sodium chloride (NaCl) on silver (Ag) surface - Photomicrograph. Neg. Mag. 200X Print Mag. 400X	G. Johnson	R. F. Smith	10-177-9
10-21	Sodium chloride (NaCl) on silver (Ag) surface - Photomicrograph. Neg. Mag. 75X Print Mag. 150X	G. Johnson	R. F. Smith	10-178-9

Date	Caption	Dept.	Photographer	Number
10-21	Sodium Chloride (NaCl) on silver (Ag) surface - Photomicrograph. Neg. Mag. 125 X Print Mag. 250 X.	G. Johnson	R. F. Smith	10-179-9
10-24	Cycling Furnaces Controls.	B. Warner	R. J. Walton	10-180-9
10-24	Foxboro Pressure Transmittor.	B. Warner	R. J. Walton	10-181-9
10-24	These negatives have been transferred to File Progress.	Vassilopoulos	R. F. Smith	10-182-9 and 10-183-9
10-25	Fig 1 - Diamagnetic correction, Δ_L , in percent vs. atomic number Z.	Poss	C. Lee	10-184-9
10-25	Alpha Scintillation Counter. Counting rate - Voltage. October 14, 1949.	Bernstein	C. Lee	10-185-9
10-25	Six inch scale/	Garfield	C. Lee	10-186-9
10-26	Six inch scale.	Garfield	C. Lee	10-186-9A
10-26	Alpha Scintillation Counter. Lab Model Assembly.	Bernstein	C. Lee	10-187-9
10-26	Alpha Scintillation Counter. Lab Model Schematic.	Bernstein	C. Lee	10-188-9
10-26	Fig. 12-18. Hole spacing for even and odd numbers of holes.	Boerner	P. Bennett	10-189-9
10-27	Weather map.	Bohnhorst	M. H. Bull	10-190-9
10-27	Sodium Chloride (NaCl) on silver (Ag) surface - Photomicrograph. Neg. Mag. 336 X Print Mag. 672 X	G. Johnson	R. F. Smith	10-191-9

Date	Caption	Dept.	Photographer	Number
10-28	"The Cave" is what California Research Corporation chemists call this shielded locker down among the thick basement walls of a laboratory building in Richmond. Here Dr. Don E. Hull lifts a radioactive piston ring from its storage place. Long sticks hold ring away from his body, thus decreasing the effect of rays emanating from this "hot" metal.	Thiesmeyer	P. Simack	10-192-9
10-28	Cobalt needle goes into face of patient with cancer. Needle may be pulled out, sterilized and re-used later. Other needles that follow it will go into other patients after problems of dosage have been solved.	Thiesmeyer	P. Simack	10-193-9
10-28	Showing cobalt needle wire going into aluminum cans that will carry it through pile.	Thiesmeyer	P. Simack	10-194-9
10-28	Showing a piece of cobalt wire, inert, before its trip into the atomic pile. Later to be used in cancer research.	Thiesmeyer	P. Simack	10-195-9
10-28	AEC-48-150. A radioactive isotope, by-product of the nation's atomic energy plants, is the heart of a new gauge for measuring the thickness of Pliofilm and other thin films on continuous production equipment. Measures thin as one-thousandth of an inch.	Thiesmeyer	P. Simack	10-196-9
10-28	Showing cans of cobalt needles in graphite block-the "stringer"- as stringer is prepared for its trip into pile. Stringer rides inside lead channel. Tongs keep workers' hands away from stringer areas made "hot" by previous trips into pile.	Thiesmeyer	P. Simack	10-197-9
10-28	Radioactivity used to test engine wear. Carl Nelson, engine operator, returns a sample of lubricating oil to the crankcase of an automotive test engine after the amount of radioactive iron present has been determined by means of a Geiger counter.	Thiesmeyer	P. Simack	10-198-9

Date	Caption	Dept.	Photographer	Number
10-28	Dr. J.T. Kummer watches Charlotte Wray demonstrate how to precipitate a sample from coal-made gasoline, prior to determining its radioactive isotope content in a Geiger counter, hoping to open new possibilities for commercial production of gasoline from coal.	Thiesmeyer	P. Simack	10-199-9
10-28	One of the newest weapons of science, radioactive atoms called isotopes, are shedding new light on the process for making gasoline from coal. Here Charlotte Wray prepares to measure the isotope radiations of a sample precipitation from coal-made gasoline in the Geiger counter, right.	Thiesmeyer	P. Simack	10-200-9
10-28	Kidneys in abdominal cavity of four-year-old cadaver.	Dr. Madden	Smith & Walton	10-201-9
10-28	Kidneys from four-year-old cadaver.	Dr. Madden	Smith & Walton	10-202-9
10-28	Aorta from four-year-old cadaver.	Dr. Madden	Smith & Walton	10-203-9
10-28	Heart from four-year-old cadaver in hospital. Patient expired from kidney ailment.	Dr. Madden	Smith & Walton	10-204-9
10-28	Construction Progress of Hot Cells.	George Bennett	R. F. Smith	10-205-9 thru 10-207-9
10-31	Successive decay $\pi \rightarrow \mu \rightarrow e$. The particle, e, arising from the decay of the μ -meson, is commonly assumed to be an electron, but this assumption remains to be finally established. A few grains in the track of a second particle of low specific ionisation can be seen near the end of the range of the μ -meson, but this particle was not associated with the main event. The track of several δ -rays produced by the μ -meson, one of which the π^+ -particle decayed can be distinguished.	T. Johnson	C. Lee	10-208-9
10-31	Figure 8. 100 μ . Observer: Mrs. W.J. van der Merwe.	T. Johnson	C. Lee	10-209-9

Date	Caption	Dept.	Photographer	Number
10-31	Figure 5. Characteristic example of the track of a particle of low specific ionisation produced by the decay of a μ -meson. The track of the secondary particle is given in two parts which should join at the points marked a.	T. Johnson	C. Lee	10-210-9
10-31	Figure 1.	T. Johnson	C. Lee	10-211-9
10-31	1 BB vs. 1 BB Cycling Cool Large Button Slugs. #1147 cycling in Furnace #1. #161C constant temperature (room).	B. Warner	C. Lee	10-212-9
10-31	(2 SB + 1 BB) vs. (2 BB vs. 1 SB) Both Furnaces Cycling.	B. Warner	C. Lee	10-213-9
10-31	1 SB vs. 1 SB Cycling Cool SB #494, Furnace #2 (cycling). SB #714, Furnace #1 (constant). 23 cycles complete F 2.	B. Warner	C. Lee	10-214-9
10-31	1 BB vs. 1 BB. (#1746 and #1610). Large Button Cartridges, Different pressure.	B. Warner	C. Lee	10-214-9 A
10-31	(2 BB + 1 SB) vs. (2 SB + 1 BB) Cycling Cool	B. Warner	C. Lee	10-215-9
10-31	1 BB vs. 1 SB Both Furnaces Cycling.	B. Warner	C. Lee	10-216-9
10-31	1 BB vs. 1 SB Cycling Cool	B. Warner	C. Lee	10-217-9
10-31	1 SB vs. 1 BB Cycling Cool LB #1746 Furnace #1 (constant) vs. SB #494 Furnace # 2 (cycling).	B. Warner	C. Lee	10-218-9
10-31	(2 SB + 1 BB) vs. (2 BB + 1 SB). Cycling Cool	B. Warner	C. Lee	10-219-9
10-31	1 SB vs. 1 SB Both Furnaces Cycling. SB Cartridges.. (714 vs. 830).	B. Warner	C. Lee	10-220-9
10-31	Fig. 1. Diagram of the arrangement of counters in the multidirectional cosmic-ray intensity comparison.	T. Johnson	P. Simack	10-221-9

Date	Caption	Dept.	Photographer	Number
10-31	Fig. 2 Fig. 4	T. Johnson	P. Simack	10-222-9
10-31	0 Coincidence Counter. ⊗ Anticoincidence Counter.	T. Johnson	P. Simack	10-223-9
10-31	Abb. 1. Schema einer Ionisationskammer. P, P' Elektrodenplatten. R, ionisierende Strahlung, die durch ein Fenster F, das dünner als die Kammerwände ist, eintritt G, Messgerät für den elektrischen Strom.	T. Johnson	P. Simack	10-224-9
10-31	Abb. 3. Schema einer Expansionskammer nach C.T.R. Wilson.	T. Johnson	P. Simack	10-225-9
10-31	Abb. 2. Schema eines Geiger-Müller-Zählrobes.	T. Johnson	P. Simack	10-226-9
10-31	Fig. 3. Scale diagram of the geometry of the experiment.	T. Johnson	P. Simack	10-227-9
10-31	Fig. 19. Versuchsanordnung bei den Koinzidenzmessungen von Boute Kolnörster.	T. Johnson	P. Simack	10-228-9
10-31	Fig. L. Arrangement of apparatus.	T. Johnson	P. Simack	10-229-9
10-31	Fig. 5. Energy spectrum of mesotron decay electrons. Each point represents the number of electrons per energy interval of 10 Mev. The vertical lines indicate the expected statistical spread. A smooth curve is drawn through the observed points.	T. Johnson	P. Simack	10-230-9
10-31	Fig. 1. Schematic representation of neutron wave.	T. Johnson	P. Simack	10-231-9
10-31	Mock-up of arrangement for measuring the quantity of printing ink by the use of isotopes. <i>radioactive</i>		J. F. Garfield	10-232-9
10-31	Slide # A 1848-5 E 142	Sparrow	R. F. Smith	10-233-9

November

Date	Caption	Dept.	Photographer	Number
11-1	Examples of Isotopes: Copper, Iron, Carbon.	Thiesmeyer	P. Simack	11-1-9
11-1	Sodium 23 Magnesium 24. ⊕ Proton ⊖ Neutron - Electron.	Thiesmeyer	P. Simack	11-2-9
11-1	Copy of photograph of Cloud Chamber event observed by Dr. Chang.	T. Johnson	P. Simack	11-3-9
11-1	Elementary Particles. Charge, Mass, Spin, and Stability of: Electrons, neutrino Meson, neutrettas Nucleons.	T. Johnson	P. Simack	11-4-9
11-1	Copy - Fig. 1. Disposition of counters, absorbers, and magnetized iron plates. All counters, "D," are connected in parallel.	T. Johnson	P. Simack	11-5-9
11-2	Copy - Fig. 1. Temperature vs. grain density relation for three groups of Ilford plates.	E. Dollman	P. Simack	11-6-9
11-2	Copy. Temperature vs. grain density for new Ilford C2.	E. Dollman	P. Simack	11-7-9
11-2	Copy of Cloud Chamber photograph.	T. Johnson	M. H. Bull	11-8-9
11-2	Tube sealing machine. View: open.	Charles- worth	R. J. Walton	11-9-9
11-2	Tube sealing machine. View: heating.	Charles- worth	R. J. Walton	11-10-9
11-2	Tube sealing machine. View: closed.	Charles- worth	R. J. Walton	11-11-9
11-3	Drawing of Pile Interior. <i>cleared for pub-</i>	C. Williams	M. H. Bull	11-12-9

Date	Caption	Dept.	Photographer	Number
11-3	Fig. 5. Chart. Scaler 1 Output. Scaler 2 Input (5Mc. pulses). Scaler 1 Input. Gate 2. Gate 1. Starting Pulse. Pulse Shaper Output. Unknown Frequency.	B. Chase	P. Simack	11-13-9
11-3	Fig. 2. Pulse Shaping Circuit.	B. Chase	P. Simack	11-14-9
11-3	Fig. 3. Fast Gate Circuit.	B. Chase	P. Simack	11-15-9
11-3	Fig. 1. Block Diagram.	B. Chase	P. Simack	11-16-9
11-3	Copy. Control of dye mixture if one dye exhausts bath twice as fast as other. Dye B is tagged and controls set to maintain optimum amount. Proportioning value feeds twice as much A as B.	Thiesmeyer	P. Bennett	11-17-9
11-3	Copy. Controlling thickness of a film by measuring radiation from a fixed source which is able to force way through film.	Thiesmeyer	P. Bennett	11-18-9
11-3	Copy. Diagram: First Scaling Unit--> Second Scaling Unit--> Third Scaling Unit--> Cathode Follower.	M. Weiss	P. Bennett	11-19-9
11-3	Copy. Suggested control of coating laid on fabric by gaging thickness from reading of radiation by isotopes in coating mix.	Thiesmeyer	P. Bennett	11-20-9
11-4	Copy of Diagram: Fig. 1-4. Interior of Monitoring Shack.	M. Weiss	P. Bennett	11-21-9
11-4	Transmission Curve for Gamma radiation using .083" (or .021) cm. Brass.* (Copy).	M. Weiss	P. Bennett	11-22-9
11-4	Copy of Diagram: Fig. 4-6. Series Diode. To Input Grid of V.T.V.M.	M. Weiss	P. Bennett	11-23-9

Date	Caption	Dept.	Photographer	Number
11-8	Negatives 1-6. Abrasion test on six steel plates.	B. Warner	R. J. Walton	11-24-9 thru 11-29-9
11-9	Magnetic Electron Multiplier for Positive Ion Determination.	L.G. Smith	R. F. Smith	11-30-9
11-9	Technician looking in scope while tests are being made on magnet sections of Cosmotron.	Garfield	Walton & Smith	11-31-9
11-9	Normal Tradiscanthia plant in radiation field.	Sparrow	R. F. Smith	11-32-9
11-9	2400 volt generator for testing sections of Cosmotron magnet.	Gaffield	Smith & Walton	11-33-9
11-9	Tradiscanthia plant in Gamma Field. Mutation due to radiation.	Sparrow	R. F. Smith	11-34-9
11-9	Mass Spectrograph Vacuum System Multiplier.	L.G. Smith	P. Bennett	11-35-9
11-9	Chart. V (volt) vs. Response (arbitrary units). Multiplier Response. H_2O^+ - 3rd order. H_2 equals 356 grams.	L.G. Smith	P. Bennett	11-36-9
11-2	Road washouts after heavy rain. Road to north side of Pile Building.	E. Hunter	R. J. Walton	11-37-9 thru 11-40-9
11-10	Odd Proton Nuclei. Spin vs. u-Nuclear Magnetons.	Poss	P. Simack	11-41-9
11-10	Odd Neutron Nuclei. Spin vs. u-Nuclear Magnetons.	Poss	P. Simack	11-42-9
11-11	Portrait of Dr. Richard Dodson.	Portrait	J. F. Garfield	11-43-9
11-11	Portrait of Dr. Richard Dodson.	Portrait	J. F. Garfield	11-44-9
11-11	Graph. E Mev. (scale - .1-1.0) vs. 1×10^{-6} thru 1×10^0 . $T_{1/2}$ sec. 1 equals 4.	G. Goldhaber	P. Simack	11-45-9
11-11	Graph. E Mev. (scale - 0-.1) vs. 1×10^{-2} thru 1×10^0 . $T_{1/2}$ sec. 1 equals 3.	Goldhaber	P. Simack	11-46-9

Date	Caption	Dept.	Photographer	Number
11-11	Graph. E Mev. (scale - .005-.02) vs 1×10^{25} thru 1×10^{36} $T_{\frac{1}{2}}$ sec. 1 equals 6.	Goldhaber	P. Simack	11-47-9
11-11	Graph. E. Mev. (scale - 1.0-3.0) vs. 1×10^{-7} thru 1×10^3 $T_{\frac{1}{2}}$ sec. 1 equals 5.	Goldhaber	P. Simack	11-48-9
11-11	Graph. E Mev. (scale - .1-3.0) 1×10^{-13} thru 1×10^{-1} $T_{\frac{1}{2}}$ sec. 1 equals 3.	Goldhaber	P. Simack	11-49-9
11-11	Graph. E Mev. (scale - .1-1.0) vs. 1×10^6 thru 1×10^{19} T sec. 1 equals 6. Also 1×10^3 thru 1×10^9	Goldhaber	P. Simack	11-50-9
11-11	Graph. E Mev. (scale .1-1.0) 1×10^{-2} thru 1×10^{11} $T_{\frac{1}{2}}$ sec. 1 equals 5.	Goldhaber	P. Simack	11-51-9
11-11	Graph. E Mev. (scale - 0-.1) 1×10^3 thru 1×10^{16} $T_{\frac{1}{2}}$ sec. 1 equals 4.	Goldhaber	P. Simack	11-52-9
11-11	Graph. E Mev. (scale - .01-.1) 1×10^9 thru 1×10^{22} $T_{\frac{1}{2}}$ sec. 1 equals 5. Also 1×10^{18} thru 1×10^{27} (E Mev. 0-.02)	Goldhaber	P. Simack	11-53-9
11-11	Graph. E Mev. (scale - 0-3.0) vs. 1×10^{-4} thru 1×10^7 $T_{\frac{1}{2}}$ sec. 1 equals 6.	Goldhaber	P. Simack	11-54-9
11-11	Graph. E Mev. (scale - 0-3.0) vs. 1×10^{-10} thru 1×10^{-1} T sec. 1 equals 4.	Goldhaber	P. Simack	11-55-9
11-11	Graph. E Mev. (scale - .1-3.0) vs. 1×10^{-17} thru 1×10^{-11} T sec. 1 equals 1.	Goldhaber	P. Simack	11-56-9

Date	Caption	Dept.	Photographer	Number
11-11	Graph. E Mev. (scale - 0-.1) 1×10^{-7} thru 1×10^{-1} $T_{\frac{1}{2}}$ sec. 1 equals 2.	Goldhaber	P. Simack	11-57-9
11-11	Graph. E Mev. (scale - .1-3.0) vs. 1×10^{-14} thru 1×10^{-8} $T_{\frac{1}{2}}$ sec. 1 equals 2. Also E Mev. (scale - .07-.1) vs. 1×10^{-8} thru 1×10^{-6} .	Goldhaber	P. Simack	11-58-9
11-11	Graph. E Mev. (scale - .01-.1) 1×10^{16} thru 1×10^{29} $T_{\frac{1}{2}}$ sec. 1 equals 6.	Goldhaber	P. Simack	11-59-9
11-8	Irradiated Tradiscanthia Plants.	Sparrow	J. F. Garfield	11-60-9 and 11-61-9
11-11	Fig. 1 and 2. Absorption Spectra of Salt Solutions at low temperature. Solvent ten parts by volume n-propyl alcohol, 45 parts liquid propane, and 45 parts liquid propene. Concentrations about 0.005 M.	Freed	M. H. Bull	11-62-9
11-10	Steel surfaces used in abrasion test.	B. Warner	Smith and Walton	11-63-9 thru 11-68-9
11-11	Fig. 5. Size distribution of the standard citrate Sol.	Turkevich	P. Simack	11-69-9
11-11	Charts - Copy. Wave length in microns vs. % Trans- mission for all:			
11-11	n-Nitroso-Diphenylamine in CS_2 n-Nitroso-Diphenylamine in CCl_4 .	Turkevich	P. Simack	11-70-9
11-11	Azobene in CS_2 Azobene in $CHCl_3$.	Turkevich	P. Simack	11-71-9

Date	Caption	Dept.	Photographer	Number
11-11	Diphenylamine in CS ₂ Diphenylamine in CHCL ₃ .	Turkevich	P. Simack	11-72-9
11-11	Picryl Chloride in CS ₂ Picryl Chloride in CCL ₄ .	Turkevich	P. Simack	11-73-9
11-11	Picric Acid in CS ₂ Picric Acid in CCL ₄ .	Turkevich	P. Simack	11-74-9
11-11	Free Radical a, a-Di-Phenyl B-Picryl-Hydraylin in CS ₂ a, a-Di-Phenyl B-Picryl-Hydraylin in CHCL ₃ .	Turkevich	P. Simack	11-75-9
11-11	Sym. Tri-Nitro-Benzine in CS ₂ Sym. Tri-Nitro-Benzine in CHCL ₃ .	Turkevich	P. Simack	11-76-9
11-11	Tetra-Phenyl-Hydrazine in CS ₂ Tetra-Phenyl-Hydrazine in CHCL ₃ .	Turkevich	P. Simack	11-77-9
11-11	Radical Mother A, A-Di-Phenyl B-Picryl-Hydrazine in CS ₂ A, A-Di-Phenyl B-Picryl-Hydrazine in CHCL ₃ .	Turkevich	P. Simack	11-78-9
11-11	<u>Electrical analogue</u> for study of temperature distribution in one section of the BNL Pile. The circuitry simulates a section of the Pile and varying conditions of the circuit simulated the operating condition of the Pile. The current is the equivalent of heat flow, voltage of temperature, and resistance of thermal resistance.	Garfield	Smith & Walton	11-79-9
11-10	Conduits set in place for generator control in the generator room of the Cosmotron Building.	A. Wise	R. J. Walton	11-81-9 and 11-82-9
11-14	Neher Pickering Quench Circuit. Lead Pig Model.	J. Constant	J. F. Garfield	11-83-9
11-14	Experimental Grass Plot	E. Hunter	R. F. Smith	11-84-9 thru 11-87-9
11-14	Experimental Grass Plot #1.	E. Hunter	R. F. Smith	11-88-9 and 11-89-9
11-14	Experimental Grass Plot #2.	E. Hunter	R. F. Smith	11-90-9 and 11-91-9

Date	Caption	Dept.	Photographer	Number
11-14	Experimental Grass Plot #3.	EEHunter	R. F. Smith	11-92-9 and 11-93-9
11-14	Experimental Grass Plot #4.	EEHunter	R. F. Smith	11-94-9 and 11-95-9
11-14	Experimental Grass Plots.	EEHunter	R. F. Smith	11-96-9 thru 11-103-9
11-9	Transferred to CDS. BNL Log # 1038.	Borst	Garfield & Walton	11-104-9
11-9	Top northwest section of pile proper between graphite and top of shield.	Borst	Garfield & Walton	11-105-9 thru 11-109-9
11-15	Copy of chart. (p. 170, fig. 22).	McReynolds	M. H. Bull	11-110-9
11-15	Graph. Figure 5. (7-1A42-1).	Blewett	C. Lee	11-111-9
11-15	Schematic Wiring Diagram. Figure 10. (7-1A40-2).	Blewett	C. Lee	11-112-9
11-15	R. F. Sysstem. Fig. 9 (7-1A40-2).	Blewett	C. Lee	11-113-9
11-15	Injection Section. Fig. 7 (7-1A43-2).	Blewett	C. Lee	11-114-9
11-15	Graph. Fig. 11 (7-1A43-2).	Blewett	C. Lee	11-115-9
11-15	Accelerating Frequency Cycle for Cosmotron. Fig. 8 (7-1A15-2).	Blewett	C. Lee	11-116-9
11-15	Magnet block showing Gap Dims. Fig. 12 (7-1A39-2).	Blewett	C. Lee	11-117-9
11-15	Graph. Fig. 6 (7-1A12-2).	Blewett	C. Lee	11-118-9
11-15	Plan View of Cosmotron Magnet and Assembly. Fig. 3 (7-1A9-2).	Blewett	C. Lee	11-119-9
11-15	Quadrant End Section for 3 Bev. Cosmotron.	Blewett	C. Lee	11-120-9
11-15	Cross Section of "C" Magnet and Assembly of blocks of $\frac{1}{2}$ " Plates. Fig. 2 (7-1A8-2).	Blewett	C. Lee	11-121-9
11-15	R vs. T Curve for 3 Bev. Cosmotron. Fig. 1 (7-1A7-2).	Blewett	C. Lee	11-122-9

Date	Caption	Dept.	Photographer	Number
11-15	Building Plan and Elevation for the Laboratory to house the Cosmotron. Fig. 13 (7-1A20-2).	Blewett	C. Lee	11-123-9
11-16	5 Megacycle - Scale of 16384. Schematic.	B. Chase	C. Lee	11-124-9
11-15	Hot Pot mock-up. Genral view. 5 gallon size.	Strickland	R. J. Walton	11-125-9
11-15	Hot Pot mock-up. 5 gallon size.	Strickland	R. J. Walton	11-126-9
11-15	Tradiscanthia plants in greenhouse. Plants 513-516.	Sparrow	R. F. Smith	11-127-9
11-16	Tradiscanthia plants in greenhouse. Plants 517-520.	Sparrow	R. F. Smith	11-128-9
11-16	Tradiscanthia plants in greenhouse. Plants 509-512.	Sparrow	R. F. Smith	11-129-9
11-16	Tradiscanthia plants in greenhouse. Plants 505-508.	Sparrow	R. F. Smith	11-130-9
11-16	Tradiscanthia plants in greenhouse. Plants 501-504.	Sparrow	R. F. Smith	11-131-9
11-16	Exterior of Propane Storage Plant.	Garfield	Garfield	11-132-9 and 11-133-9
11-16	Interior of Propane Storage Plant.	Garfield	Garfield	11-134-9 and 11-135-9
11-8	Meteorology Smoke Run.	Met.	Meteorology	11-136-9 thru 11-143-9
11-8	Meteorology Smoke Run.	Met.	Meteorology	11-144-9 thru 11-151-9
11-8	Meteorology Smoke Run.	Met.	Meteorology	11-152-9 thru 11-159-9
11-17	Final check of slot in magnet section.	Garfield	Garfield & Walton Smith	11-160-9

Date	Caption	Dept.	Photographer	Number
11-17	Unbolting section of Cosmotron magnet on test rods.	Garfield	Garfield & Smith	11-161-9
11-17	Removing magnet section from test block.	Garfield	Garfield & Smith	11-162-9
11-17	Removing Cosmotron magnet section from rack of sections to be tested.	Garfield	Garfield & Smith	11-163-9
11-10	Dr. Joseph Kelley and camera set up on Cosmotron magnet testing.	Garfield	Garfield & Walton	11-164-9
11-10	Dr. Milton G. White with Cosmotron model.	B. Moore	Garfield & Walton	11-165-9 thru 11-167-9*
11-10	Cleaning magnet section preparatory to testing.	B. Moore	Garfield & Walton	11-168-9
11-10	Computing Section - Cosmotron magnet testing.	B. Moore	Garfield & Walton	11-169-9
11-10	Dr. William Moore sighting magnet alignment in test block.	B. Moore	Garfield & Walton	11-170-9
11-10	Mrs. M. Hildred Blewett, head of computing section's magnet testing.	B. Moore	Garfield & Walton	11-171-9
11-10	Operation of Magnet Block test set up.	B. Moore	Garfield & Walton	11-173-9
11-10	Dr. Lyle Smith and model Cosmotron magnet.	B. Moore	Garfield & Walton	11-172-9
11-10	Dr. Kenneth Green.	B. Moore	Garfield & Walton	11-174-9
11-10	Dr. John P. Blewett.	B. Moore	Garfield & Walton	11-175-9
11-10	Test set up in magnet gap.	B. Moore	Garfield & Walton	11-176-9
11-10	New Brookhaven Seal (Pile Building).	Garfield	M. Herbert	11-177-9
11-17	Hot Cell Progress.	G. Bennett	R. F. Smith	11-178-9
11-17	Betatron Camera.	F. Jelley	M. H. Bull	11-179-9
11-16	Test set up for steel plate abrasion test.	B. Warner	R. J. Walton	11-180-9

Date	Caption	Dept.	Photographer	Number
11-16	Placing Assembly in Vacuum Chamber.	Schoener	R. J. Walton	11-181-9
11-16	Assembling Equipment.	Schoener	R. J. Walton	11-182-9
11-16	Aluminum Disc.	Schoener	R. J. Walton	11-183-9
11-16	Aluminum Disc.	Schoener	R. J. Walton	11-184-9
11-16	Placing Assembly in Tube.	Schoener	R. J. Walton	11-185-9
11-16	Constant Temperature Furnaces.	Schoener	R. J. Walton	11-186-9
11-16	Assembly and Vacuum Chamber.	Schoener	R. J. Walton	11-187-9
11-16	Assembly Components in Tank.	Schoener	R. J. Walton	11-188-9
11-16	Sealing of Assembly.	Schoener	R. J. Walton	11-189-9
11-16	Assembly Components.	Schoener	R. J. Walton	11-190-9
11-18	Magnet sections showing stainless steel.	Sheridan	R. J. Walton	11-191-9
11-21	Prominent Russian Scientists: Copies			
11-21	I. P. Pavlov (1849-1949).	Turkevich	C. Lee	11-192-9
11-21	A. A. Mikulin.	Turkevich	C. Lee	11-193-9
11-21	A. N. Tupolev (1889-).	Turkevich	C. Lee	11-194-9
11-21	N. N. Semenov (1896-).	Turkevich	C. Lee	11-195-9
11-21	Russian Research Building.	Turkevich	C. Lee	11-196-9
11-21	Ruins of Russian Observatory.	Turkevich	C. Lee	11-197-9
11-21	Russian Research Building.	Turkevich	C. Lee	11-198-9
11-21	Telescope in Russian Observatory before bombing.	Turkevich	C. Lee	11-199-9
11-21	Russian Research Building (with smoke stack in background).	Turkevich	C. Lee	11-200-9
11-21	Russian Research Building.	Turkevich	C. Lee	11-201-9
11-21	Full Scale Wooden Mock-up of Cosmotron Magnet Sections.	Sheridan	R. J. Walton	11-202-9
11-21				

Date	Caption	Dept.	Photographer	Number
11-21	Two views of generator foundation in Cosmotron Building.	A. Wide	R. J. Walton	11-203-9 and 11-204-9
11-21	A Standard Frequency Source. Chassis - bottom view.	MacCormack	J. F. Garfield	11-205-9
11-21	A Standard Frequency Source. Chassis - top view.	MacCormack	J. F. Garfield	11-206-9
11-21	A Standard Frequency Source. Chassis - top view.	MacCormack	J. F. Garfield	11-207-9
11-21	A Standard Frequency Source. Chassis - panel.	MacCormack	J. F. Garfield	11-208-9
11-22	Energy (kev) vs. N/f Be ¹⁰ .	D. Hughes	P. Simack	11-209-9
11-22	Energy (kev) vs. N/f Na ²² .	D. Hughes	P. Simack	11-210-9
11-22	Mole Fraction CCl ₄ vs. Yield of Substitution Product.	R. Dodson	P. Simack	11-211-9
1-22	P vs. R v/t. Case II Case III - Curves Case IV.	R. Dodson	P. Simack	11-212-9
11-22	Apparent Density Difference between Drop and XBB. Falling Time Room Temperature.	A. Edelmann	P. Simack	11-213-9
11-23	Relative Frequency Shift.	W. Cohen	P. Simack	11-214-9
11-23	Interaction: Atomic Case: Metallic Case: Experimentally: Larmor Condition: Effective Moment.	W. Cohen	P. Simack	11-215-9
11-23	Results for Relative Frequency Shift Neglecting R(0).	W. Cohen	P. Simack	11-216-9
11-23	Copy. (<u>The Court of Honor</u> : rented from SOVFOTO). In this anti-American play, a Soviet researcher explains his theory for relieving pain to American medical men. The plot was that our scientists wished to obtain the secrets so they could be sold in this country.	Turkevich	C. Lee	11-217-9

Date	Caption	Dept.	Photographer	Number
11-23	Smoke - infra-red with a filter.	Lowry (Met)	M. H. Bull	11-218-9
11-23	Smoke - infra-red with no filter.	Lowry (Met)	M. H. Bull	11-219-9
11-25	Saddle Point Calculation Furry Model. E_0/B equals 231.15. t vs. N.	J. Snover	J. F. Garfield	11-220-9
11-25	(a) E_γ , Mev. vs. Intensity where: N equals 0.94I N equals 1.05 I N equals 1.27 I (b) E_γ , Mev. vs. $\text{cm.}^2/\text{sterad} \times 10^{28}$.	Salant	J. F. Garfield	11-221-9
11-28	"Pure" Vapor Pressure of CH_3OH in CCl_4 --Log Na vs. Log P^*_a (mm Hg).	Sancier	P. Simack	11-222-9
11-28	Heat of Vaporization of CH_3OH in CCl_4 . --Log Na vs. ΔH_a (kcal./mole).	Sancier	P. Simack	11-223-9
11-28	Effect of $\text{CH}_3\text{OH} - \text{CCl}_4$ Concentration on Monomer & Polymer Bands. --Log Na vs. Area (CH), (OH) _x .	Sancier	P. Simack	11-224-9
11-28	Thermodynamic-Spectroscopic Correlation - $\text{CH}_3\text{OH}-\text{CCl}_4$. ΔH_h (kcal./mole) vs. Area (CH), (OH) _x .	Sancier	P. Simack	11-225-9
11-28	Thermodynamic-Spectroscopic Correlation - $\text{CH}_3\text{OH}-\text{CCl}_4$. ΔS_h (cal./mole) vs. Area (CH), (OH) _x .	Sancier	P. Simack	11-226-9
11-28	Heat of Hydrogen Bonding of CH_3OH in CCl_4 . --Log Na vs. ΔH_h (kcal./mole).	Sancier	P. Simack	11-227-9
11-28	Entropy of Hydrogen Bonding in CH_3OH in CCl_4 . --Log Na vs. ΔS_h (cal./mole).	Sancier	P. Simack	11-228-9
11-28	Analysis Calibration $\text{CH}_3\text{OH}-\text{CCl}_4$. 49.340°C. Na vs. P_t (mm Hg).	Sancier	P. Simack	11-229-9
11-28	Molar Extinction of $\text{CH}_3\text{OH}-\text{CCl}_4$ Solutions. Na equals 0.058 ---45°C. 25°C. λ (microns) vs. ϵ	Sancier	P. Simack	11-230-9

Date	Caption	Dept.	Photographer	Number
11-28	Molar Extinction of $\text{CH}_3\text{OH}-\text{CCl}_4$ Solutions. Na equals 0.54 25°C . λ (microns) vs. ϵ	Sancier	P. Simack	11-231-9
11-28	Molar Extinction of $\text{CH}_3\text{OH}-\text{CCl}_4$ Solutions. Na equals 0.006 25°C . λ (microns) vs. ϵ	Sancier	P. Simack	11-232-9
11-28	Molar Extinction of $\text{CH}_3\text{OH}-\text{CCl}_4$ Solutions. Na equals 1.0 25°C . ---- 45°C . λ (microns) vs. ϵ	Sancier	P. Simack	11-233-9
11-28	Partial Pressure Apparatus. Calibration; Analysis; Sampling.	Sancier	P. Simack	11-234-9
11-28	Margery's cartoon: Man in mouse cell with mouse watching man.	Thiesmeyer	P. Simack	11-235-9
11-28	Copy of map of Camp Upton and vicinity.	Waisman (Oak Ridge)	M. H. Bull	11-236-9
11-29	Maintenance Points for large elevator wall of Cyclotron.	W. Merkle	R. F. Smith	11-237-9 thru 11-243-9
11-29	/Tower releasing smoke. Duplicate of Kodachrome C 1-1-9	Waisman (Oak Ridge)	M. H. Bull	11-244-9
11-29	Photomicrograph of Particle Tracks.	R. Roth	R. F. Smith	11-245-9
11-30	(a) Abbe Condenser with Dark Field Stop. (b) Paraboloid Condenser (c) Cardioid Condenser.	R. Roth	M. H. Bull	11-246-9
11-30	Properties: Optical Type: Chart Nuclear Type.	R. Roth	M. H. Bull	11-247-9

Date	Caption	Dept.	Photographer	Number
11-30	Copy from <u>Wein Akademie</u>			
11-30	Page 325, Figure 1.	Katc p off	M. H. Bull	11-248-9
11-30	Page 329, Figure 3.	Katcoff	M. H. Bull	11-249-9
11-30	Page 330, Figure 4.	Katcoff	M. H. Bull	11-250-9
11-30	Page 331, Figure 5.	Katcoff	M. H. Bull	11-251-9
11-30	Copy from <u>Journal de Physique</u> :			
11-30	Page 41, Figure 3.	Katcoff	M. H. Bull	11-252-9
11 30	Page 42, Figure 4.	Katcoff	M. H. Bull	11-253-9
11-30	Copy from PPR, Vol. 9B: Figure 4 at end of paper 6.6.3.	Katcoff	M. H. Bull	11-254-9
11-30	Counter Chassis full view.	Dr. Cool	J. F. Garfield	11-255-9 and 11-256-9
11-30	Counter Chassis close-up.	Dr. Cool	J. F. Garfield	11-257-9 and 11-258-9
11-29	Steel plate - wear test for #4. <i>11-259-9</i>	Warner	J. F. Garfield	11-259-9
11-29	Steel plate - wear test for #6.	Warner	J. F. Garfield	11-260-9
11-29	Steel plate - wear test for #8.	Warner	J. F. Garfield	11-261-9
11-29	Steel plate - wear test for #7.	Warner	J. F. Garfield	11-262-9
11-30	A microphotometer for the quantitative apectrophotometric analysis, in visible and ultraviolet light, of the chemical component of cytological structures. Top, photometer head containing photoelectric table. Center, microscope and reflex camera. Lower left, visible light source. Lower rihgt, ultraviolet source and monochrometer.	Moses	R. F. Smith	11-263-9
11-30	BNL's Panel Exhibit.	Garfield	R. F. Smith	11-266-9

Date	Caption	Dept.	Photographer	Number
11-29	Steel plate - wear test for #12.	Warner	J. F. Garfield	11 267-9
11-29	Steel plate - wear test for #11.	Warner	J. F. Garfield	11-268-9
11-29	Steel plate - wear test for #10.	Warner	J. F. Garfield	11-269-9
11-29	Steel plate - wear test for #9.	Warner	J. F. Garfield	11-270-9
11-29	Steel plate - wear test for #3.	Warner	J. F. Garfield	11-271-9
11-29	Steel plate - wear test for #4.	Warner	J. F. Garfield	11-272-9
11-29	Steel plate - wear test for #2.	Warner	J. F. Garfield	11-273-9
11-29	Steel plate - wear test for #1.	Warner	J. F. Garfield	11 274-9
11-29	Steel plate - wear test for #5.	Warner	J. F. Garfield	11-275-9
11-30	Photomicrograph of Caesium Chloride on Iron. Single crystal. Neg. Mag. 76X Print Mag. 152X	G. Johnson	R. F. Smith	11-276-9
11-30	Photomicrograph of Caesium Chloride on Iron. Double crystals. Neg. Mag. 76X Print Mag. 152X	G. Johnson	R. F. Smith	11-277-9 and 11-278-9
11-30	Aerial views of Cosmotron site.	Garfield	R. J. Walton	11-279-9 and 11-280-9
11-23	Thermal treatment furnace.	Teitel	R. J. Walton	11-281-9
11-23	Dry box.	Teitel	R. J. Walton	11-282-9
11-23	Thermal treatment controls for furnace.	Teitel	R. J. Walton	11-283-9
11-23	Thermocouple cold junction.	Teitel	R. J. Walton	11-284-9
11-23	Induction melting furnace.	Teitel	R. J. Walton	11-285-9

Date	Caption	Dept.	Photographer	Number
11-17	Hot Lab Exterior. View looking southwest.	Garfield	R. F. Smith	11-286-9
11-10	Meteorology Smoke Run #1.	Met.	Met.	11-287-9 thru 11-291-9
11-10	Meteorology Smoke Run #2.	Met.	Met.	11-292-9 thru 11-299-9
11-10	Meteorology Smoke Run #3.	Met.	Met.	11-300-9 thru 11-307-9
11-10	Meteorology Smoke Run #4.	Met.	Met.	11-308-9 thru 11-315-9
11-10	Meteorology Smoke Run #5.	Met.	Met.	11-316-9 thru 11-323-9
11-29	Dr. L. R. Thiesmeyer.	Thiesmeyer	J. F. Garfield	11-324-9
11-29	Dr. L. R. Thiesmeyer.	Thiesmeyer	J. F. Garfield	11-325-9
11-29	Dr. L. R. Thiesmeyer.	Thiesmeyer	J. F. Garfield	11-326-9
11-29	Dr. L. R. Thiesmeyer.	Thiesmeyer	J. F. Garfield	11- 327 -9 11-327-9
11-29	Photomicrograph of particle track emulsion showing proton tracks which are caused by neutrons. This film is included in the film badges of persons who may be exposed to neutrons. A count of the tracks is a rough index of the exposure received.	HPhysics RRoth	R. F. Smith	11-245-9

December

Date	Caption	Dept.	Photographer	Number
12-1	Photo-Neutron Detector.	Goldhaber	R. F. Smith	12-1-9
12-1	Photo-Neutron Detector. "Heavy" water which has its ordinary hydrogen atoms replaced by deuterium atoms is exposed to gamma rays by Dr. M. Goldhaber. The gamma rays disintegrate the deuterium into ordinary hydrogen and a deuteron. The neutrons are detected by special counters filled with (B ¹⁰ F ₃) inside the large box containing 500 pounds of paraffin.	Garfield	R. F. Smith	12-2-9
12-1	Dr. M. Goldhaber lowering a bottle of "heavy" water into the Photo-Neutron Detector.	Garfield	R. F. Smith	12-3-9 and 12-4-9
12-1	Metallic Single Crystal Furnace.	Atherton	R J. Walton	12-5-9
12-1	Aerial views of construction progress of Cosmotron Building.	Garfield	R. J. Walton	12-6-9 and 12-7-9
12-1	An apparatus being prepared for the study of the interaction of the secondary particles produced in cosmic ray penetrating showers. Previous experiments in the lab have shown that a large fraction of these particles are pi mesons. The equipment is so designed that a camera records for each penetrating shower the individual Geiger-Müller counters which are discharged. In this way the spacial geometry of the showers can be studied. The apparatus will be operated in the high altitude station at Bethel Pass, Colorado.	Garfield	J. F. Garfield	12-8-9 and 12-9-9
12-2	Dr. Simon Freed assembling apparatus for the investigation of the Physical Chemistry of solutions at low temperatures.	Garfield	Smith & Walton	12-10-9 thru 12-12-9
12-2	Amplification Factor Measurement. FE K Capture Source 5 Mil. Be Window-Brass Tube 90% Ne 10% CH ₄ Corrected for errors in Gain Control.	Bernstein	M. H. Bull	12-13-9

Date	Caption	Dept.	Photographer	Number
12-2	BA K Capture Source - Cs X-rays (a) Brass Counter 540 mm Kr 60 mm CH ₄ 1500 volt battery pack (b) Aquadag Cathode 90% A 10% CH ₄ 2100 volt battery pack.	Bernstein	M. H. Bull	12-14-9
12-2	Energy - Pulse Height 30 mil BE Window-Brass Tube 90% A 10% CH ₄ 2100 volt battery pack.	Bernstein	M H. Bull	12-15-9
12-2	FE K Capture Source - Mn X-rays 5 mil BE Window-Brass Tube 540 mm Kr 60 mm CH ₄ 1500 volt battery pack Amplifier Gain 8 October 24, 1949.	Bernstein	M. H. Bull	12-16-9
12-2	Counter: High Voltage: Preamplifier: Amplifier: Pulse Height Anal.: Scaler.	Bernstein	M. H. Bull	12-17-9
12-2	#1 SE Source #2 SE Source plus 11.4 mg/cm Cu #3 SE Source plus 20.2 mg/cm Fe 5 mil BE Window-Brass Tube 540 mm Kr 60 mm CH ₄ 1500 volt battery pack Amplifier Gain 7 October 19, 1949.	Bernstein	M. H. Bull	12-18-9
12-2	FE K Capture Source - Mn X-rays 30 mil Be Window-Brass Tube 90% A 10% CH ₄ 2100 volt battery pack October 24, 1949.	Bernstein	M. H. Bull	12-19-9
12-5	Fluorescent X-rays 30 mil Be Window-Brass Tube 90% A 10% CH ₄ 2100 volt battery pack Zn 47 equals 8.6 Cu 43.5 equals 7.98 Ni 40.5 equals 7.43 Fe 34.5 equals 6.32 Mn 30.5 equals 5.58.	Bernstein	M. H. Bull	12-20-9
12-5	Drawing.	Bernstein	M H. Bull	12-21-9

Date	Caption	Dept.	Photographer	Number
12-5	Mr. Morris Slavin of the Chemistry Department adjusting arc on a Galing Spectrograph used for the analysis of inorganic materials.	Garfield	Smith & Walton	12-22-9
12-6	Fig. 3 (Copy). Fast Gate Circuit.	B. Chase	P. Bennett	12- 24 -9
12-5	Doors being set in place on semi-hot cell.	Strickland	R. J. Walton	12-23-9
12-6	Copy. Temperature vs. Reciprocal Susceptibility.	Elliott	P. Simack	12-25-9.
12-6	Magnetic susceptibility of MnF_2 as a function of temperature and concentration.	Elliott	P. Simack	12-26-9
12-6	Curie Temperature as a Function of Concentration. Mol % MnF_2 vs. Curie Temperature.	Elliott	P. Simack	12-27-9
12-6	Mol % Nd_2O_3 vs. Curie Temperature.	Elliott	P. Simack	12-28 9
12-6	Uranium Thorium.	Thiesmeyer	J. F. Garfield	12-29-9
12-6	Cloud Chamber Photographs (Copy).	Fowler	C. Lee	12-30-9 thur 12-36-9
12-7	Experimental Data: The C^{14} values are in millomicrocuries (1×10^{-3} microcuries) per milligram of Carbon.	Gibbs	M. H. Bull	12-37-9
12-7	Growth of <u>E Coli</u> strains B and B/r in media containing P^{32} (Expr. 95) - high Carrier (P^{31}). Time in hours vs. density.	B. Rubin	M. H. Bull	12-38-9
12-7	Growth of <u>E Coli</u> strains B and B/r in media containing P^{32} (Expr. 95) low Carrier (P^{31}). Time in hours vs. density.	B. Rubin	M. H. Bull	12-39-9
12-7	Photomicrograph of Sodium Chloride on polycrystalline Bismuth. Neg. Mag. 165X.	G. Johnson	R. F. Smith	12-40-9 thru 12-42-9
12-7				

Date	Caption	Dept.	Photographer	Number
12-7	Photomicrograph of Sodium Chloride on cleaved Antimony. Neg. Mag. X 165.	G. Johnson	R. F. Smith	12-43-9 and 12-44-9
12-7	Photomicrograph of Sodium on cleaved Bismuth. Neg. Mag. 165X.	G. Johnson	R. F. Smith	12-45-9
12-7	Photomicrograph of Rubidium Chloride on cleaved Bismuth. Neg. Mag. 165X.	G. Johnson	R. F. Smith	12-46-9 and 12-47-9
12-7	Photomicrograph of Potassium Chloride on cleaved Bismuth. Neg. Mag. 165X.	G. Johnson	R. F. Smith	12-48-9 and 12-49-9
12-7	Manganous Flouride Molecule Model. General Illumination.	Elliott	R. F. Smith	12-50-9
12-7	Manganous Flouride Molecule Model. Highlighted Illumination.	Elliott	R. F. Smith	12-51-9
12-7	Potato plant close-up of seed pod.	Christensen	R. F. Smith	12-52-9
12-7	Corn Plants.	Singleton	R. J. Walton	12-53-9 and 12-54-9
12-7	.002 Iconel post bonded (Pliobond) to glass laminate. 25 psi to rupture.	Mede	R. J. Walton	12-55-9 and 12-56-9
12-7	Photomicrograph of Potassium Chloride on cleaved Bismuth. Neg. Mag. 247.5X.	G. Johnson	R. F. Smith	12-57-9 and 12-58-9
12-7	Photomicrograph of Sodium Chloride on polycrystalline Antimony. Neg. Mag. 165X.	G. Johnson	R. F. Smith	12-59-9 and 12-60-9
12-8	Radioisotope Shipments by field of use August 2, 1946 - June 30, 1949.	Hartzell	M. H. Bull	12-61-9
12-8	Radioisotope Shipments by States. August 2, 1946 - June 30, 1949.	Hartzell	M. H. Bull	12-62-9
12-9	Counter Position, Inches vs. Intensity cts./Min.	D. Hughes	C. Lee	12-63-9

Date	Caption	Dept.	Photographer	Number
12-8	Steel plate - wear test for #4.	Warner	J. F. Garfield	12-64-9
12-8	Steel plate - wear test for #8.	Warner	J. F. Garfield	12-65-9
12-8	Steel plate - wear test for #9.	Warner	J. F. Garfield	12-66-9
12-9	Scale.	Tichy	M. H. Bull	12-67-9
12-12	Cerium Exchange Nitrate System. R $\frac{(Ce\ III)(CeIV)}{molal^{-1}\ min^{-1}}$	Dodson	C. Lee	12-68-9
12-12	Cerium Exchange Nitrate System. R $molal^{-1}\ min^{-1} \times 10^6$ Ce III 0.00507M Ce IV 0.00425f.	Dodson	C. Lee	12-69-9
12-12	Phtographs made for Security. Negative in Mr. Williams' possession.	Williams	M. H. Bull	12-70-9 & 12-71-9
12-13	Cyclotron and progress on vacuum tube assembly.	Merkle	J. F. Garfield	12-72-9
12-13	Cyclotron - vacuum tube assembly.	Merkle	J. F. Garfield	12-73-9
12-13	Cyclotron - vacuum tube assembly.	Merkle	J. F. Garfield	12-74-9
12-13	Cyclotron - vacuum tube assembly.	Merkle	J. F. Garfield	12-75-9
12-13	Cyclotron - progress on assembly of cyclotron vacuum tube assembly.	Merkle	J. F. Garfield	12-76-9
12-9	Cyclotron - vacuum tube assembly	Merkle	R. J. Walton	12-77-9
12-9	Cyclotron - vacuum tube assembly.	Merkle	R. J. Walton	12-78-9
12-9	Cyclotron - vacuum tube assembly.	Merkle	R. J. Walton	12-79-9
12-9	Cyclotron - progress on vacuum tube assembly.	Merkle	R. J. Walton	12-80-9
12-15	Cycle for cycling furnace.	Iseli (Warner)	C. Lee	12-81-9

Date	Caption	Dept.	Photographer	Number
12-15	Amplification Factor Measurement Fe K Capture Source 5 mil Be Window-Brass Tube 90% Ne 10% CH ₄ Corrected for errors in Gain Control.	Bernstein	C. Lee	12-82-9
12-15	Fe K Capture Source #1 30 mil Be Window-Brass Tube 90% A 10% CH ₄ 2100 Volt Battery Pack #2 5 mil Be Window-Brass Tube 540 mm Kr 60 mm CH ₄ 1500 Volt Battery Pack.	Bernstein	C, Lee	12-83-9
12-15	Non-overloading Pulse Amplifier and Power Supply - Schematic.	Bernstein	C. Lee	12-84-9
12-15	Trace of up and down gusts as trans- mitted by a horizontal and vertical moving vane located on top of a stand on the Meteorology Towers Building. Limits of the transmitter are plus 45° and minus 45°. The straight line after 4:20 P.M. indicates that vertical turbulence within the limits of the instrument has stopped.	Mazzarella	C. Lee	12-85-9
12-15	Definitions for the printed record of the Wind Gradient Recorder.	Mazzarella	C. Lee	12 86-9
12-15	High Velocity Impacter.	Mazzarella	M. H. Bull	12-87-9 and 12-88-9
12-19	Photomicrograph. Neg. Mag. 165X.	G Johnson	R. F. Smith	12-89-9
12-9	Photomicrograph. Neg. Mag. 165X.	G. Johnson	R. F. Smith	12-90-9
12-15	Layout for Waste Treatment Panel Board.	Macaulay	P. Bennett	12-91-9
12-12	Fluorine Handling Equipment.	F. Miles	J. F. Garfield	12-92-9
12-12	Diffusion Apparatus Detail.	F. Miles	J. F. Garfield	12-93-9
12-12	Vacuum Line for Fluorine.	F. Miles	J. F. Garfield	12-94-9
12-12	Diffusion Apparatus in Ionization Chamber.	F. Miles	J. F. Garfieldx	12-95-9

Date	Caption	Dept.	Photographer	Number
12-16		Hughes	P. Bennett	12-95-9A
12-16	Number of Neutrons vs. σ (mb)	Hughes	P. Bennett	12-96-9
12-14	Schematic Diagram of Pile Showing Facilities for Research.	Hughes	P. Bennett	12-97-9
	Apparatus for Bragg Reflection of Neutrons - Top view.	Hughes	P. Bennett	12-98-9
		Hughes	P. Bennett	12-99-9
	Tradiscanthia plant showing effects of radiation. (Duplicate of color).	Sparrow	R. F. Smith	12-100-9
	Percentages of spontaneous aberration found in 15 plants of Trillium Erectum.	Sparrow	P. Bennett	12-101-9
	Coil winding in test shack (Cosmo).	Dr. White	Garfield & Walton	12-102-9
	Grating with Van de Graaff generator in background.	Dr. White	Garfield & Walton	12-103-9
	Magnet for Van de Graaff generator.	G. Hoey	R. J. Walton	12-104-9
	Progress on "hot" cell.	Bennett	R. J. Walton	12-105-9
	Relacing tracks on base of Cyclotron magnet.	Merkle	R. J. Walton	12-106-9
MG White	Front view of Photronic Pulse Height Analyzer.	Kramer	R. J. Walton	12-107-9
	Interior of Photronic Pulse Height Analyzer.	Kramer	R. J. Walton	12-108-9
	Rear view of Photronic Pulse Height Analyzer.	Kramer	R. J. Walton	12-109-9
	Cosmotron - Coil Winding.	Dr. White	Smith & Walton	12-110-9
	(a) Seconds after exposure vs. Intensity. (b) (Exp'm't. - Calculated) X 3	Hughes	M H. Bull	12-111-9 12-112-9
	12-111-9 NO NEGATIVE.			

Copper for Cosmotron magnet being insulated in preparation for winding.

Garfield & Walton

12-102-9

Date	Caption	Dept.	Photographer	Number
12-20	Specimen of Electrocardiograph Tape and Explanation.	Hughes	M. H. Bull	12-113-9
12-20	Slide. Oscillator Gear Assembly. Section A-A.	Hughes	M. H. Bull	12-114-9
12-20	Diagram. Leads to reactor tank.	Hughes M.	H. Bull	12-115-9
12-20	Guillotine nad Neutron Trap.	Hughes	M. H. Bull	12-116-9
12-20	Macrophotograph of Polycrystalline Iron. Oblique Illumination. Neg.Mag. 5 X.	G.Johnson	R. F. Smith	12-117-9
12-20	Macrophotograph of Polycrystalline Iron. Vertical Illumination. Neg.Mag. 5 X.	G.Johnson	R. F. Smith	12-118-9
12-20	Energy (kev.) vs. $\sqrt{N/f}$ $\times \sqrt{1/a}$.	Alburgher	C. Lee	12-119-9
12-20	Energy (kev.) vs. $\sqrt{N/f}$. Na^{22}	Alburgher	C. Lee	12-120-9
12-20	Dial (H_p) vs. Scale 16 per minute.	Alburgher	C. Lee	12-121-9
12-20	Electron Momentum. 1.0 equals 766 H_p vs. Scale 8 per minute.	Alburgher	C. Lee	12-122-9
12-20	H_p vs. N/H_p Na^{22} and Be^{10} .	Alburgher	C. Lee	12-123-9
12-20	Energy (kev.) vs. Per Cent Correction (Kurie Plot). Na^{22} and Be^{10} .	Alburgher	C. Lee	12-124-9
12-21	Table I. Sporophyte colonies developing from wild type A arbusculus and Mutant #7.	K. Yaw	C. Lee	12-125-9
12-21	Table II. Sporophyte colonies developing from "selfing" gametes of wild type Mutant #7 and crosses of wild type X #7.	K. Yaw	C. Lee	12-126-9
12-21	Table III. Segregations in R.S. zoosporangia from crosses of wild type of A arbusculus X mutants and mutant X mutant.	K. Yaw	C. Lee	12-127-9

Date	Caption	Dept.	Photographer	Number
12-21	Possible Segregation of Fragment at Meiosis (Schematic Diagram).	Sparrow	C. Lee	12-128-9
12-21	The percentages of spontaneous aberrations at various stages of microsporogenesis in Trillium Erectum.	Sparrow	C. Lee	12-129-9
12-21	Macrophotograph of Copper surface. Neg. Mag. 4X.	Kammerer	R F. Smith	12-130-9
12-21	Fragment distribution by stages of Classifiable Aberrant Pollen Mother Cells from Plant #2093.	Sparrow	M. H. Bull	12-131-9
12-22	Data summarized by Distance (Intensity)	Sparrow	M. H. Bull	12-132-9
12-22	Total dosage in Roentgens vs. Percentage of Micronuclei.	Sparrow	M. H. Bull	12-133-9
12-22	Comparison of 32 and 64 meter data with control (means of 16, 32, and 64 day data).	Sparrow	M. H. Bull.	12-134-9
12-22	Stage Comparisons of Aberration Frequencies during microsporogenesis in Trillium Erectum.	Sparrow	M. H. Bull	12-135-9
12-22	Analysis of Spontaneous Aberrations of 1) Anthers within a bud, 2) Buds within a plant, and 3) Plants within a group (Trillium Erectum).	Sparrow	M. H. Bull	12-136-9
12-22	Table 2. Inhibition of Iron Penetration of the Rat Erythrocyte* by Sodium Cyanide.	Sharpe	M. H. Bull	12-137-9
12-22	Table 1. Radioiron content of Erythrocytes following Whole Blood Incubation.	Sharpe	P. Simack	12-138-9
12-22	Table 3. Inhibition of Iron Penetration of Nucleated and Non-Nucleated Erythrocytes by Sodium Cyanide.	Sharpe	M. H. Bull	12-139-9
12-22	Table 4. Progressive Uptake of Fe ⁵⁹ by Duck Erythrocytes.	Sharpe	M. H. Bull	12-140-9

Date	Caption	Dept.	Photographer	Number
12-22	Table 5. Uptake of Iron by Duck Cells.	Sharpe	M. H. Bull	12-141-9
12-22	Table 6. Distribution of Activity in Duck Erythrocytes.	Sharpe	M. H. Bull	12-142-9
12-22	Table 7. Distribution of Activity in Duck Erythrocytes.	Sharpe	M. H. Bull	12-143-9
12-22	Table 8. Uptake of Iron by Washed Haemolysed Duck Cells.	Sharpe	M. H. Bull	12-144-9
12-22	Table 9. Uptake of Iron by Debris Free Haemolysed Duck Erythrocytes.	Sharpe	P. Simack	12-145-9
12-22	Table 10. Retention of Iron by Washed Protein of Debris Free Haemolysed Duck Erythrocytes.	Sharpe	P. Simack	12-146-9
12-22	Table 11. Effect of Sodium Cyanide on Debris Free Haemolysed Duck Erythrocytes.	Sharpe	P. Simack	12-147-9
12-22	r per day vs. Percentage of Micro-nuclei Y equals minus 2 plus 1.3 times (mean) of three sets of values).	Sparrow	P. Simack	12-148-9
12-22	Lightning damage to instrument cables.	Met.	R. J. Walton	12-149-9 and 12-150-9
12-23	Table II/. Percentage of Aberrant cells in each fragment class.	Sparrow	C. Lee	12-151-9
12-27	Technician (L. O. Davis) checking "breadboard" model of instrument for measuring atmospheric potential gradients.	Garfield	Smith & Walton	12-152-9
12-27	Engineer (John N. Michel) making tests on evaporation for concentrating weakly radioactive solutions to facilitate measurements.	Garfield	Smith & Walton	12-153-9
12-27	Engineer (R. L. Chase) making adjustments on an improved non-overloading amplifier.	Garfield	Smith & Walton	12-154-9

Date	Caption	Dept.	Photographer	Number
12-27	Front and rear views of equipment for measuring radio-frequencies up to 5 Mc/sec. in very short times. This is being used in studies on the oscillator for the Cosmotron. flat ear.	Chase A. Wise	Smith & Walton R. J. Walton	12-155-9 and 12-156-9 12-158-9
12-28	Progress on Cosmotron Construction.	A. Wise	R. J. Walton	12-159-9 thru 12-161-9
12-28	B - Propio B - Butyro.	F. Long	P. Simack	12-162-9
12-28	B - Propio, straight line. B - Butyro, broken line. ⊙ △ □	F. Long	P. Simack	12-163-9
12-28	Straight line graph. ⊙	F. Long	P. Simack	12-164-9
12-28	NaAc, KCl, AgNO ₃ , NaClO ₄ , Cs ₂ SO ₄ , KNO ₃ , BaCl ₂ . Straight line graph.	F. Long	P. Simack	12-165-9
12-28	Straight line graph. ⊙ Data from present work. △ Johansson's value.	F. Long	P. Simack	12-166-9
12-28	Dr. Klein (left) and Dr. Sharpe. Photo for Life Magazine.	Jameson	R. F. Smith	12-167-9
12-28	Dr. Raymond Klein in his lab. Photo for Life magazine.	Jameson	R. F. Smith	12-168-9
12-28	Dr. Leon Sharpe in lab. Photo for Life magazine.	Jameson	R. F. Smith	12-169-9
12-28	Dr. L. Sharpe in his lab. Photo for Life magazine.	Jameson	R. F. Smith	12-170-9
12-28	Dr. L. Sharpe in his lab. Photo for Life magazine.	Jameson	R. F. Smith	12-171-9
12-29	Graph. NCCl ₄ vs. R ₂ CCl ₄	Dodson	P. Simack	12-172-9

Date	Caption	Dept.	Photographer	Number
12-29	Graph - A, B, & C lines. N_{CCl_4} vs. R.	Dodson	P. Simack	12-173-9
12-29	Graph - A, B, & C lines. P vs. R_{CCl_4} .	Dodson	P. Simack	12-174-9
12-29	Graph - A, B, & C lines. N_{CCl_4} vs. R.	Dodson	P. Simack	12-175-9
12-29	Graph. N_{CCl_4} vs. R_{CCl_4} .	Dodson	P. Simack	12-176-9
12-29 12-29	Graph. N_{CCl_4} vs. R_{CCl_4} .	Dodson	P. Simack	12-177-9
12-29	Figure 1. Gustiness Types representative Hourly Distributions of 10-second Mean Wind Direction At BNL - July, 1949.	Lowry	P. Simack	12-178-9
12-29	Figure 4. Percentage Frequency of Wind Direction - July, 1949.	Lowry	P. Simack	12-179-9
12-29	Figure 5. Percentage Frequency of Wind Speed - July, 1949. Metres per second vs. Percentage Frequency.	Lowry	P. Simack	12-180-9
12-29	Figure 6. Percentage Frequency of Gustiness Types - July, 1949. ABCD vs. Percent of Time.	Lowry	P. Simack	12-181-9
12-29	Figure 7. Daily Smoke Hours Regardless of Direction at BNL - July, 1949. Day of the Month vs. Number of Smoke Hours.	Lowry	P. Simack	12-182-9
12-29	Figure 8. Number of Smoke Hours more than 1/10 by Wind Direction and Total Frequency of Wind Direction at BNL - July, 1949.	Lowry	P. Simack	12-183-9
12-29	1. $T < d/u$. 2. $\bar{X}$ equals a X_s a equals T_s/T . 3. $\bar{X}(r, \theta, Z)$ equals $\frac{1}{2} a X(r, \theta_i, \theta, Z)$. 4. $\bar{X}_m$ equals $2 Q / \pi H^2 (a_m/u)$. 5. r_m equals $hcsc \sigma$.	Lowry	P. Simack	12-184-9

Date	Caption	Dept.	Photographer	Number
12-29	Chart. Gustiness Type and Distance (stack- heights) of maximum ground concent- ration.	Lowry	P Simack	12-185-9
12-29	Chart. Gustiness Type and a_m .	Lowry	P. Simack	12-186-9
12-29	Workmen operating oxygen torch which is being used to burn holes in test section of Pile shield.	Garfield	R. F. Smith	12-187-9
12-29	Burning hole in section of Pile shield. Close-up.	Garfield	R. F. Smith	12-188- 9 & 12-189-9
12-29	Photograph of South Gate road bridge through windshield looking north.	E. Hunter	R. F. Smith	12-190-9 and 12-191-9
12-29	South Gate Bridge looking south.	E. Hunter	R. F. Smith	12-192-9 and 12-193-9
12-29	Photograph of South Gate Bridge taken from Long Island Railroad track looking west.	E. Hunter	R. F. Smith	12-194-9
12-29	South Gate Bridge looking north.	E. Hunter	R. F. Smith	12-195-9
12-29	Wear test for steel plate #2.	B. Warner	R. F. Smith	12-196-9
12-29	Wear test for steel plate #4.	B. Warner	R. F. Smith	12-197-9
12-29	Wear test for steel plate #8.	B. Warner	R. F. Smith	12-198-9
12-29	Wear test for steel plate #9.	B. Warner	R. F. Smith	12-199-9
12-29	Wear test for steel plate #10.	B. Warner	R. F. Smith	12-200-9
12-29	Wear test for steel plate #11.	B. Warner	R. F. Smith	12-201-9
12-30	Microforecast Chart Temperature.	M. Smith	P. Simack	12-202-9
12-30-	Microforecast chart Gustiness Types - Stack Level.	M. Smith	P. Simack	12-203-9
12-30	Microforecast Chart Temperature.	M. Smith	P. Simack	12-204-9

Date	Caption	Dept.	Photographer	Number
12-30	Microforecast Chart Temperature.	M. Smith	P. Simack	12-205-9
12-30	Stack Height Speed 1-3 M.P.S. Stack Height Gustiness D.	M. Smith	P. Simack	12-206-9
12-30	Stack Height Speed 7-10 M.P.S. Stack Height Gustiness D.	M. Smith	P. Simack	12-207-9
12-30	Stack Height Speed 1-3 M.P.S. Stack Height Gustiness A.	M. Smith	P. Simack	12-208-9
12-30	Figure 1. γ -Butyrolactone; Numbered Bonds.	F. Long	P. Simack	12-209-9
12-30	Copy of Map. Prepared under direction of the Corps Area Engineer, 2nd Corps Area. Compiled from Special Military Map Camp Upton and Vicinity, 1923.	Geology	C. Lee	12-210-9
12-14	Slide # A 2315 C (A) E 155	Sparrow	R. F. Smith	12-211-9
12-14	Slide # A 2315-c (B) E154	"	"	12-212-9
12-14	Slide # A 1929-B E153	"	"	12-213-9
12-14	Slide # A 1839-G E150	"	"	12-214-9
12-14	Slide # A 492-B E152	"	"	12-215-9
12-14	Slide # A 2031-G E 151	"	"	12-216-9

Date	Caption	Dept.	Photographer	Number
10-5	Inside view of Target Machine (Model - Bottling Plant negative).	Turovlin	R. J. Walton	10-1-9 M