Inventory of the Department of Biological and Agricultural Engineering Records

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Abstract: The Department of Biological and Agricultural Engineering Records contain subject files, correspondence, files related to the American Society of Agricultural Engineers, and farm building plans. The collection also contains an index of images and associated negatives that were photographed by the department from circa 1915-1951. Subjects of the images include research by the department, various types of agricultural equipment such as: plows, harrows and rollers, cultivators, subsoilers, and harvesting and haying machinery, as well as agricultural buildings such as: barns, silos, corn cribs, poultry houses.

Physical location: Researchers should contact Special Collections to request collections, as many are stored offsite.

Repository: University of California, Davis. Library. Department of Special Collections.

Davis, California 95616-5292

Collection number: AR-012

Language of Material: Collection materials in English.

Administrative History
In 1915 J.B. Davidson, head of the Agricultural Engineering Department at Iowa State College, was asked by Dean Thomas F. Hunt to come to Davis to create a professional Division of Agricultural Engineering. L.J. Fletcher, who replaced Davidson in 1919, persuaded the College of Engineering Mechanics at Berkeley to open an option in Agricultural Engineering. Starting in 1924, instruction in this program took place at Berkeley for the first, second, and fourth years while a summer course and third year instruction were given at Davis. The first B.S., M.S., and Ph.D. degrees in agricultural engineering were granted in 1926, 1927, and 1960, respectively.

In 1928 the division moved into its new agricultural engineering building, named Walker Hall in 1959 in honor of Harry B. Walker, who succeeded Fletcher in 1928. Under Walker's direction a farm crop mechanization program was initiated, starting with funds granted by the American Sugar Beet Association in 1938. The mechanization program involved many of the division's engineers for the next 45 years.

In 1948 Roy Bainer succeeded Walker as division head. Under Bainer's leadership further expansion of the division included projects on pest control and animal environment, while crop mechanization projects were broadened to include lettuce, grapes, onions, cantaloupe, celery, and asparagus. Perhaps the largest and longest-lived project began in 1953 on the mechanization of canning tomatoes, directed by Coby Lorenzen in collaboration with Jack Hanna from the vegetable crops department.

In 1951 the offering of instruction in basic science and mathematics through the new College of Letters and Science enabled agricultural engineering students to take three years of course work at Davis and one year at Berkeley, although the degrees were still granted by Berkeley. In 1962 the College of Engineering was founded at Davis under Dean Roy Bainer and in 1963 began granting agricultural engineering degrees. Research broadened to include farm safety; ergonomic studies of farm workers; farm produce handling and processing; and aquacultural, forest, and food engineering. In 1973 the Farm Practices Program was transferred to agricultural engineering to offer students practical experience. A new facility completed in 2000, the Western Center for Agricultural Equipment, was designed to house the farm practices program as well as to provide laboratory space for other engineering activities.

In 1992 further changes in the department's mission developed with the name change to Biological and Agricultural Engineering.


Scope and Content
The Department of Biological and Agricultural Engineering Records contain subject files, correspondence, files related to the American Society of Agricultural Engineers, and farm building plans.

The collection also contains an index of images and associated negatives that were photographed by the department from circa 1915-1951. Subjects of the images include research by the department, various types of agricultural equipment such as: plows, harrows and rollers, cultivators, subsoilers, and harvesting and haying machinery, as well as agricultural buildings such as: barns, silos, corn cribs, poultry houses.

The image index is arranged according to a classification scheme devised by J.B. Davidson, the first chair of the department.
Please note that this finding aid does not describe the entire index to images. Descriptions for additional portions of the index are forthcoming.

**Arrangement of the Collection**

This collection has two different arrangements: one for the paper records and one for the image index and negatives. The paper records are described in a pdf document which can be accessed via the “Additional Collection Guides” link on the right hand navigation bar. The image index, which can be found in the document below, is arranged according to a classification devised by J.B. Davidson, the first chair of the department.

**Indexing Terms**

The following terms have been used to index the description of this collection in the library’s online public access catalog.

Stirniman, E. J. (Edward James), 1892-1974
Fairbank, J. P. (James Partridge), 1891-1978
Long, J. D. (James Dewey), 1899-1996
Neubauer, L. W. (Loren Wenzel), 1904-
Moses, B. D. (Ben Duncan), 1882-

University of California, Davis. Department of Biological & Agricultural Engineering--Archives
Agricultural engineering--Study and teaching (Higher)--California--Davis--History

**Access**

Collection is open for research.

**Processing Information**

Sara Gunasekara processed this collection with assistance from student employees Megan Peterson, Maria Wong Chang, and My-Hanh Nguyen.

**Acquisition Information**

Transferred from the Department of Biological and Agricultural Engineering.

**Preferred Citation**

[Identification of item], AR-012, Department of Biological and Agricultural Engineering Records, Department of Special Collections, General Library, University of California, Davis.

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Inventory of the Department of Biological and Agricultural Engineering Records, Boxes 1-60

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**Series 1. Index to images 1915-1951**

Physical Description: 9 linear feet

Scope and Content Note

This series contains an index of images that were photographed by the department. Subjects of the images include research by the department, various types of agricultural equipment such as: plows, harrows and rollers, cultivators, subsoilers, and harvesting and haying machinery, as well as agricultural buildings such as: barns, silos, corn cribs, poultry houses. Negatives of the images are found in Series 2.

This index is arranged according to a classification scheme devised by J.B. Davidson, the first chair of the department.

Please note that this finding aid does not describe the entire index to images. Descriptions for additional portions of the index are forthcoming.
Series 1.

Inventory of the Department of Biological and Agricultural Engineering Records

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**Box 61:1**

5518a 5518b 5518c 5518d  **Soil heat flow, graphs 1942 April**

Photographer: Weston, E.W.

Subjects and Indexing Terms

10.3 Thermodynamics and heat

Scope and Content Note

Graphs are taken from Figs. 1, 2, 3, and 4 from Brooks' Project Report 400-U, pages 574-599 inclusive. Paper read by Leighly at Geophysical Union meeting, April 1942.

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**Box 61:2**

2316a 2316b 2316c 2316d  **Earthquake damage 1927 January 18**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

El Centro and Mexicali. (a&b) Show reconstruction in wood frame of a brick wall thrown down from a commercial building in Mexicali. Note adobe brick building at left with shear cracks at either side of wall but no bricks thrown down. Adobe brick has brick posts and parapet wall at street line. (c) A bad failure of a Calexico hotel. All posts along street are sheared at top or bottom or both. (d) A rear wall of the reinforced concrete Studebaker garage in Calexico, Third and Rockwood Ave. Poor design responsible - large panel 90' long, 18' high and 8' thick with no bracing or pilasters. Note shear at upper corner in foreground and shoring of 6' x 6' timbers.

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**Box 61:2**

2269a 2269b 2269c 2269d  **Adobe Brick Construction, Farm Bureau Office, Visalia, California, across from Court House 1926 October**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

(a) Front elevation. Farm Advisor Lindsay on top of wall at left. Laying out roof trusses in foreground. (b) Showing set back from street and patio behind arches. Brick structure at side forms one side of farm bureau building. (c) Rear corner of patio showing step in of main structure. Corner with stak hanging down caused considerable discussion. Fear that arch would settle when braces removed and corner be thrown out. (d) Taken by Asst. F.A. Gilfillan showing construction of patio arches. Showing side wall. Note window lintel of wood and unfinished arch at right. Negative in Asst. Farm Adv. Gilfillan's office. Statistics - 50 yr. lease on lot from city, 4000 large brick made, 1400 small, 90 farm bureau members donated time on work, 1 man hired as Supt. of Construction. Footings 14" below, 12" above grade, $1200 estimated cash cost.

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**Box 61:2**

1830a 1830b 1830c  **Parin Residence, Kearney Park Ranch, Fresno undated**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Exterior walls of adobe brick. For details, see trip report #17

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**Box 61:2**

2098a 2098b 2098c 2098d 2098e  **Adobe Brick Construction, 18th & X Street Sacramento 1926 June**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

(1) Cutting the brick to fit; (2) forcing the brick into plumb, mud mortar used; (3) rought plumbing for kitchen sink notched into wall.
Box 61:2 2088a 2088b **Adobe Brick Construction 1926 May**
Photographer: Stirniman, E.J.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Remains of adobe brick walls of old Spanish Mission.

Box 61:2 2065 **Earth Wall Houses undated**
Photographer: Rephotographed from pictures used in manuscript for U.S.D.A. circular

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
(a) House constructed by Dr. H.B. Humphrey, Glen Echo, Maryland, in 1922. (b) House recently remodeled as shown using the original walls erected in 1773. (Washington D.C.) On back - "Pise de terre residence, corner of 13th St. and Rhode Island Ave. N.E., Washington. This building is of rammed earth from the footings to the roof. It was erected in 1773 by a native of Germany and was for many years his plantation home. It was built by the owner's slaves, and stands today a splendid testimonial to the virtues of pise construction." - Dr. H.B. Humphrey U.S.D.A.

Box 61:2 **Pise de Terre Equipment, used by H.B. Humphrey, Glen Echo, Maryland. undated**
Photographer: Rephotographed 4/25 from pictures used in manuscript of U.S.D.A. circular

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
(a) Rammers, (b) Construction of forms at corners, (c) Window reveal and end forms.

Box 61:2 6644a 6644b **Adobe Soil Mixer, Lenoard Homann Place, 4 miles west of Davis 1948 September**
Photographer: Neubauer, L.W.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Mfg. by F.S. Edinger, Hills Flat, Grass Valley. Mixer priced at $425. Capacity is 250 to 300 bricks per day with 2 men. Costs are $0.25 to $0.27 per brick. Run by 2-3 hp gas engine. Homann is building his house of Adobe blocks.

Box 61:2 **Adobe Brick Construction, 4 miles west of Tulare 1928 Fall**
Photographer: Meador, M.A.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Adobe brick farm house erected complete by young farmer (no previous building experience) with wife as only assistant. Cost complete ready to move in estimated at $400.00 (not including labor) A - Mixing mud by hand in box, pouring in flats, and cutting immediately with butcher knife and straight edge. B - Lifting out bricks 2 days old. C - View of mixing site in field. D - Laying the "corner stone." E - The walls halfway up. F - The last brick. G - Note flare to eaves. H - Ready for inside work.
2052a 2052b 2052c  **Adobe House Construction, E. Vencill, El Centro 1926 May**

Photographer: Fairbank, J.P.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Adobe brick house 18" walls. 40 x 43.' 24" Concrete foundation. Total Cost $9000.00

2054a 2054b  **Adobe House Construction, J.F. Waterman, El Centro 1926 May**

Photographer: Watermann, J.F., El Centro

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

(a) Bedrooms - Flat gable roof (b) Bedrooms - view from each side

2849a 2849b 2849c 2849d 2849e  **Building Farms and Lands, Agricultural Engineering Building, University Farm undated**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

For rammed earth construction. Taken for bulletin on adobe construction

2837a 2837b  **Adobe Construction, Bakersfield 1929 February 23**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Mexican Catholic church and Catholic Priest's home. Both of adobe brick. Age: Less than 5 years.

2839a 2839b  **Incubator House, Sutter City Hatchery 1929 February 16**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Poured Adobe walls. Erected 1928. 27' x 120' Cost approx. $1000.00
Box 61:4

2078a 2078b  **Ranch House Construction, Liberty Ranch, Oroville, CA. 1922 Fall**

Photographer: Taylor L. W., Co. Agent, Kern County

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Use of poured adobe on “Mud Concrete”. (a) The mud was mixed in the wagon, (b) Filling the form, (c) Showing the forms on top of the wall, (d) End of house, wall complete. See letters of Mr. Taylor 4-22-25 and 5-5-25 and Mr. J.M. Howells 5-18-22 relative to construction. See other card for pictures of completed structure.

Box 61:4

2841  **Farm House, 20 miles southwest of Bakersfield 1929 February 22**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
All walls of adobe brick. No treatment on exterior walls, house erected 2 years ago.

Box 61:4

2662a 2662b  **Chicken House, University Farm 1928 April 18**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Box 61:4

2638a 2638b  **Experimental Poultry House, University Farm. undated**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Walls of pise de terre. Structure erected in summer 1927.

Box 61:4

2644a 2644b 2644c 2644d  **Experimental pise de terre construction, University Farm 1927 June**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Various stages in the erection of the walls using a small 5 hp compressor loaned by the Sac Div of the Pac Telephone and Telegraph Company

Box 61:4

2693a 2693b 2693c 2693d 2693e 2693f  **Pise de Terre Building, near Grey Bull, Wyoming 1928 July**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
(a) West end of newer portion. (b) Close up of corner. (c) an interior wall, showing poor union between courses. (d) View from southwest showing conditions and present use. (e) Very much older out building (f) (double exposure) lower same as D, upper, view of older portion.
Concrete Lumber, Near Abilene, Kansas undated
Photographer: Walker, H.B.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
1.5" x 24" x 24" (approx) blocks. (a) Showing method of laying up concrete boards. Picture taken on Stants Bros. Hog Farm near Abilene, Kansas. (b) Showing Forms of Concrete Board Construction Picture taken on Stants Bros. Hog Farm near Abilene, Kansas. (c) Concrete Board Construction used in an Apple Storage House on the Deyer Fruit Farm, Abilene, Kansas

Concrete Lumber, near Abilene, Kansas undated
Photographer: Walker, H.B.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
(a) Showing vines clinging to concrete wall of a poultry house near Abilene, Kansas. Farrar Fruit Farm. (b) Concrete Board Construction on the Farrar Fruit Farm, Abilene Kansas, Garage and Honey House. (c) Showing Concrete Board Construction in a garage near Abilene, Kansas.

Experimental pise' de terre construction, University Farm 1927 June
Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
A close-up of a portion of the machine tamped wall showing vertical construction joints and straw used as an admixture, showing on the surface. Frank Hall of AE Division tamping the rammed earth floor which was laid in two sections. One section was of soil with a .25 gravel admixture and the other section with a .16 hydrated lime admixture.

Earth Wall Construction, near Selma, Fresno County 1928 February 26
Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Indication of suitable soil. A soil which will stand in almost vertical cuts without washing indicates physical characteristics desirable in adobe construction.

Adobe Brick Construction, S.O. Stratton ranch near Collinsville 1927 June
Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Farm house in Sonoma Co.; The oldest house in “Sonoma Country erected in 1844.” The wood siding was put on the adobe brick walls about 1890.
Box 61:5 2649a 2649b  Experimental *Pise' de terre Construction, University Farm, Davis 1927 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
The borrow pit was at the west side of the AE Tractor Field, across the road north of the new AE building. The experimental building was erected on the poultry husbandry grounds. A trench approximately 4' wide, 3' deep and 90' long was excavated for the walls and floor.

Box 61:5 2643a 2643b 2643c  Experimental pise de terre construction, University Farm 1927 June 6

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
It was planned to use the two hand tamped 12” walls in a new structure to be tamped with pneumatic tampers. The old portions would not stand the vibration of the machine tamping sufficient to permit a well bounded joint between new and old portions so they were torn down, re-screened and moistened and used in the new wall. Note in the detail picture the sharp lines made by the pick point in the tamped material.

Box 61:5 JWS  Adobe Brick Construction undated

Photographer: Sjogren, J.W.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
As practiced by farmers in Western Colorado.

Box 61:5 E.C.V.  Earth Wall Building, Denmark, Sweden, Norway 1924-1925

Photographer: Voorhies, E.C.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Houses of Northern Europe. (1) A demonstration house of Pise de terre used and recommended by an agricultural school in Norway. On the outside is a coat of tar and then a coat of paint. (2) Earth is frequently used as a roofing material in the north countries. (3) Well preserved and neatly kept houses probably 300 years old in Halleback (4) “The Priest's Farm” at Elsinore, Denmark, where the priests of the church formerly lived. The structure is reputed 700 years old and is of earth with a framework of wood, called by the Danes “buildings-work.” (5) “Bindings-work” houses in a park in Arrhus, Denmark, devoted to the keeping alive of Danish tradition.

Box 61:5 2113a 2113b 2113c 2113d  Adobe Brick Construction, 18th and X Street, Sacramento 1926 May-July

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
(1) Garage walls completed to plate line; (2) lintels of 3 - 2 x 4’s trussed; (3) forms for pouring reinforced concrete lintel over rear kitchen window; (4) reinforced concrete lintel over bedroom window.
Box 61:5 2263a 2263b 2263c 2263d  Pise de terre Construction, Garage on Warren Gregory's housesite, Glennwood, Santa Cruz Co. 1926 August

Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
15 miles No. Santa Cruz on San Jose Highway. (a) Wetting and mixing the soil preparatory to placing in wall. Contractor Mr. Virgil Huff, (Box 57-a, Route 2, Santa Cruz) holding watering can. (b) Tamper of cast iron poured at local foundry. (c&d) Tamping the second section. Note groove for strengthening joint. Walls 12" thick.

Box 61:5 2642a 2642b  Experimental pise de terre construction, University Farm 1926 May

Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
After the roof blew off the first house, the 12" walls were covered with a 1" x 12" board and allowed to stand 3 months before starting reconstruction. In the interval 3.8" of rain fell. These close ups on a south and west wall show very little evidence of disintegration or washing.

Box 61:5 1776a 1776b 1776c 1776d 1776e  Building of Adobe (sun dried brick), Roy Baker Ranch, Saugus 1925 June

Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
New process evolved by A.B. McIntyre, Newhall, California. Oil coated, earthen blocks lacking straw binder formed by forcing through clay tile machine. Showing work on complete ranch building layout including residence, garage, corral wall and racehorse stables. (a) Stack of blocks in supply yard (b) View of Spanish style residence under construction (c) Garage, showing use of concrete lintels (d) Corner of barn showing blocks in wall and concrete footing (e) Arched opening in corral fence.

Box 61:5 1850a 1850b  Barnes of Adobe Brick, Roy Baker Ranch, Saugus, Los Angeles County, California undated

Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Racing stable of Roy Baker. For details, see trip report 17. (a) Side-walls erected entirely of adobe brick manufactured by A.B. McIntyre. Note corral fence at left and manure pit at right of same construction. Similar barn at left background erected of frame and vertical siding to hasten construction pending arrival of carload of horses from Kentucky. (b) Second barn erected showing construction with veneer of adobe block and stucco on front to improve appearance.
Box 61:6

2317a 2317b 2317c 2317d **Adobe Brick Commercial Building 1927 January 18**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Damage by earthquake; Mexicali, Baja California. (a) Bricks at right rear thrown down and taken down by hand from rear fire wall from above concrete bond ston shown in (b). (c&d) Show colonnade at right side showing shear cracks along lines of tops and bottoms of windows. Little other damage to building except a few minor shear cracks.

Box 61:6

2309a 2309b 2309c 2309d **Adobe Brick Construction 1927 January 18**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Earthquake damage; J.O. Guaderrama's home, Calexico (a&b) 2 views of adobe garage. Note concrete bond stone sheared at right of door and the way ventilating louver is thrown out. (c) Corner of front porch showing nails in brick to hold stucco, (d) Corner of rear wall showing partition wall shear and rear wall shattering. Note concrete bond stone at top and the buried plumbing and electric conduit.

Box 61:6

2264a 2264b 2264c **Adobe Brick Construction 1926 October**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Damage caused by roof leak. Sierra Vista Ranch Winery, Chowchilla, Madera County. To the right of main entrance, a roof leak later patched with a piece of tin, washed out a channel 12 inches wide, 6 ft. long and 8 in deep in wall.

Box 61:6

2284a 2284b **Earth Wall garage and oil house, Kern County 1926 October**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

(a) Started to build of adobe block but "too slow" so went successfully with rammed earth 10" walls. (b) Detail from interior of flat arch over window in garage wall.

Box 61:6

1785a 1785b **Adobe Brick Manufacture, near Hemet, California. 1925 March**


Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

(a) Too much horse. Home-made contrivance for mixing soil, straw and water for adobe bricks. Modeled after type used years ago in brick yards. The soil, straw and water are put in at top and are mixed by broad flanges attached to the post set in the hopper-mixture comes out an opening into hole shown in foreground, is then shoveled out onto a sled and hauled to yard shown in other picture. Straw shown on right at bottom of hopper. (b) Bricks made of average medium heavy decomposed granite soil with chopped grain straw. These bricks are to be used in construction of a storeroom and to be covered on outside with cement plaster.
<table>
<thead>
<tr>
<th>Box 61:6</th>
<th>1823a 1823b 1823c 1823d</th>
<th>Larue Residence of Adobe Block, Y.M. Lopez Ranch, Ojai Valley 1925 June</th>
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<tbody>
<tr>
<td></td>
<td>Photographer: Long, J.D.</td>
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<tr>
<td></td>
<td>Subjects and Indexing Terms</td>
<td>.1 Materials, manufacture, tests, strength, preservation, etc.</td>
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<tr>
<td></td>
<td>Scope and Content Note</td>
<td>House some 50 to 60 years old, typically Mexican. Stone foundation, original white was coat still in evidence. (a) Front of house showing Mrs. Lopez and Mr. Moseley and son Harold of Ojai. (b) Amount of wear on unprotected wall surface shown by relief of door casing; (c) Quick slope from foundation has protected lower block courses from extensive weathering; (d) Wasp holes in adobe block and insect ravages on unprotected wood lintel. See trip report no. 17</td>
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<thead>
<tr>
<th>Box 61:6</th>
<th>2277a 2277b 2277c 2277d</th>
<th>Pise’ de Terre Construction 1926 October</th>
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<tr>
<td></td>
<td>Photographer: Long, J.D.</td>
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<tr>
<td></td>
<td>Scope and Content Note</td>
<td>Investigations at University Farm; Poultry Plant, University Farm</td>
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<tr>
<th>Box 61:6</th>
<th>2290</th>
<th>Poured Earth (“Cajon”), Bakersfield, Kern Co. 1926 October</th>
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<td></td>
<td>Photographer: Long, J.D.</td>
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<tr>
<td></td>
<td>Scope and Content Note</td>
<td>Garage bungalow; Temporary home of Farm Advisor Lawrence Taylor, builder. Wood studs either side of windows. Temporary garage leanto on behind.</td>
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<tr>
<th>Box 61:6</th>
<th>1842a 1842b 1842c 1842d 1842e</th>
<th>Ranch House, Liberty Ranch - Oroville 1925 May 8</th>
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<td></td>
<td>Photographer: Long, J.D.</td>
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<td></td>
<td>Subjects and Indexing Terms</td>
<td>.1 Materials, manufacture, tests, strength, preservation, etc.</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
<td>Poured adobe (mud concrete) construction; See trip report no. 16 for details of construction, also other card showing building being erected.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 61:6</th>
<th>2066</th>
<th>A Christian East Indian and His Agricultural Implements, India 1926 October</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Rephotographed from an &quot;I.S.C. Alumnus&quot; for Long, J.D.</td>
<td></td>
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<td>Subjects and Indexing Terms</td>
<td>.1 Materials, manufacture, tests, strength, preservation, etc.</td>
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<tr>
<td></td>
<td>Scope and Content Note</td>
<td>Standing alongside a native earth walled structure. The structure apparently is of some Christian mission; with rock foundation &quot;cob&quot; walls, white washed mud plaster, and thatched roof. The tools scattered about are those in common use by native agriculturals.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Box 61:7</th>
<th>2273a 2273b 2273c 2273d</th>
<th>Pise de Terre Investigation, Poultry Plant, University Farm 1926 October</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Long, J.D.</td>
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<tr>
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<td>Subjects and Indexing Terms</td>
<td>.1 Materials, manufacture, tests, strength, preservation, etc.</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
<td>Constructing 18 x 26 Poultry House; Running up a gable end.</td>
</tr>
</tbody>
</table>
Box 61:7 2280a 2280b 2280c 2280d  Pise de Terre Investigation, Poultry Plant, University Farm  
1926 October

Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Constructing 18' x 20' Poultry House

Box 61:7 2272a 2272b 2272c  Pise' de Terre Investigation, Poultry Plant, University Farm 1926 October

Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Constructing Poultry House

Box 61:7 2255a 2255b 2255c 2255d 2255e  Pise de Terre Construction, Garage, Warren Gregory's homesite, Glenwood, Santa Cruz, County. 1926 August - October

Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
(a) Completed garage, exterior wall coated with colorless coating. (b) Side window showing cracking and opening of construction joint. (c) Rear view of garage. (d) Small test wall of local soil at site (Monterey shale). Tamped too dry. (e) General view of work.

Box 61:7 3539a 3539b  Adobe Construction, Agricultural Engineering Lab 1931 April

Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Testing Lake Co. adobe brick for compression strength.

Box 61:7 2291a 2291b  Adobe Construction, Shafter, Kern Co. 1926 October

Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Warrens Club Building; Constructed by Wasco Construction Co., Wasco, (or some contractor associated with that firm.) Constructed in 1924 at a cost of $9100.00 F. H. Dequine, Shafter contractor.

Box 61:7 2288a 2288b 2288c  Adobe Construction, Tejon Pass California 1926 October

Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Fort Tejon; (a) remains of barracks now used as stable - have large adobe and rock fireplaces in interior. (b) Old barracks now used as stable. New brick being made in foreground for reconstruction. (c) Showing rock foundation and corner of building but slightly rounded in spite of animals rubbing against it.
Box 61:7

1831a 1831b 1831c 1831d **Pise de Terre (Rammed earth) House, Mr. J.C. Meyers, Costa Mesa 1925 June**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**

Erected by owner. Estimated cost $100 less than similar frame construction. For other details see trip report no. 17. (a&b) Front and rear views with owner standing in former, (c) Interior showing rough textured plaster and narrow window casing, (d) Forms and tampers used in construction. House 30' x 30.' Two men put up walls 10" thick and 12 ft. high in five working days.

Box 61:7

2806 **Adobe Construction, Visalia, California 1926 July**

Photographer: Asst. Farm Advisor Gilfillan

**Subjects and Indexing Terms**

.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**

Farm Bureau Office, Tulare Co. (a) County road cement mixer towed by Ford used for mixing. Poured directly into 8' x 8' form and puddled into place. Later cut into blocks with straight edge and knife (in foreground). (b) "Flats" and drying brick (c) Detail of arch support, (d) Interior looking toward rear.

Box 61:7

"Caledonia" 1925 January

Photographer: Fairbank, J.P.

**Subjects and Indexing Terms**

.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**

Historic adobe block structure; San Miguel, San Luis Obispo Co. CA; Structure used as hotel, saloon and store on the old San Diego - San Francisco stage line. Age over 100 years. Lower walls 24" thick, upper 12". Evidently plastered with mud inside and out, papered inside on mud plaster and whitewashed outside. Contrast condition of walls protected by front porch and roof to the end walls. Owner J. A. Pierce, 735 - 12th street., Paso Robles. See other card for pictures of construction details.

Box 61:7

2281a 2281b 2281c **Adobe Construction, Carmel, California 1926 October**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**

Carmel Mission

Box 61:7

2292a 2292b 2292c **Adobe Construction, Monterey, California 1926 October**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**

Historic Structures; (a) First capitol building of California. (b) Originally a barracks, now a Y.M.C.A. (c) First theatre in state.
Box 61:7

2325a 2325b 2325c  **Reinforced Concrete Structures, Calexico and Mexicali, Imperial Valley 1927 June, 27**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Undamaged by earthquake, (a) Calexico City Hall (b & c) Two views of office building of Colorado River Land Co, Mexicali

Box 61:8

ab **Adobe Brick Construction, Metcalf ranch 1/2 mile east of Napa on highway. 1927 February**

Photographer: Baade, H.J.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

(a) end of wall, note straw and large gravel in bricks and the mud mortar joints (b) rear view of adobe showing weathering of walls where exposed to rain.

Box 61:8

Adobe Brick Farm House, Metcalf Ranch 1/2 mile E. Napa on highway 1927 February

Photographer: Baade, H.J.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

(a) Front view, note rock foundation, (b) rear view.

Box 61:8

Adobe Brick Residence, U.S.D.A. Station Shafter, California 1924 October

Photographer: Sullivan, Wallace

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Residence cost approximately $1500. Note arching over window openings. See other card for pictures of constructing the bricks.

Box 61:8

Adobe Brick Construction undated

Photographer: Rephotographed 4/25 from pictures used in circular manuscript of U.S.D.A.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

See Col. Agr. College Bulletin 174 and 308

Box 61:8

**Pise de Terre Construction Details, H.B. Humphrey Residence, Glen Echo, Maryland undated**

Photographer: Rephotographed 4/25 from pictures used in circular manuscript of U.S.D.A.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Box 61:8  Ranch House, Liberty Ranch (of Table Mt. Ranch Property) undated

Photographer: Gray, R.M.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
House walls poured on concrete foundation of house which had burned. To secure footing for these foundations the basement walls were stepped in some three feet leaving a shelf around basement living rooms. Roof is formed of native poles for rafters, one inch sheathing boards and roll roofing. (see also two other cards in this file of pictures taken of this house under construction by L. W. Taylor and other views by J.D. Long.)

Box 61:9  Earthquake Damage, Calexico, Imperial Valley 1927 January 17

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Two brick structures; (a) Main street, (b) view from S.P.R.R. station, (c & d) rear wall 12' thick and 20' high of one whole business block which fell out. Marine on guard at rear of post office.

Box 61:9  Earthquake Damage, Heber, Imperial Valley 1927 January, 17

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Two brick structures; (a) Post office (b&c) Rear and side views of a garage which had a leanto at rear.

Box 61:9  Adobe Brick Construction, 18th and K Street, Sacramento 1926 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
18th and K Street, Sacramento; C.R. Butler, P.O. Box 440, Sacramento, and H.H. Mell, 1613 K St. Sacramento, builders (1) Showing reinforced concrete lintel running almost across front of structure; (2) Same view with walls roof and poured concrete porch completed. (3) Structure ready for low semi-circular patio walls in front and stucco (4) Tar and gravel roof showing sheet metal ventilator at crown of roof.

Box 61:9  Adobe Brick Construction, Visalia, Tulare County 1926 July

Photographer: Farm Adviser

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Machine Mixing; Farm Bureau cooperative effort in building office building for agricultural extension staff. The "borrow pit" was 16 ft. wide by 200 ft. long. The concrete mixer was loaned by the County Supervisors from the highway equipment.
Box 61:9 1856a 1856b Manure Pit, Roy Baker Ranch, Saugus, Los Angeles County 1925 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Adobe brick sidewalks screened top; Bricks stuccoed inside to be stuccoed outside. Manure hauled in wheelbarrows from barns 300' distant. Note squeeze built against near end of pit.

Box 61:10 Adobe Brick Construction undated

Photographer: Sjogren, J.W.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Western Coloado structures, See Col. Agr. College Bulletin 174 and 308

Box 61:10 Adobe Poultry House, Kaiser Ranch Pomona, San Diego Calif 1925 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Erected by owner 1924, Monolithic "poured" construction. Note wire reinforcing for plaster. See Trip Report No. 17. (June 12)

Box 61:10 1822 Earth Wall Building 1921-1923

Photographer: Wood, J.A.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
South American Construction, (1) - Public market place, Huancayo, Peru on the Amazon slope of the Andes. Typical early Spanish arch built shortly after the conquest of Peru in latter part of 16th century. Rock facing with earth on sides & top. Continuation of wall on left. All buildings to be seen across the plaza have walls of rammed earth, some whitewashed & some bare. The roofs are of tile or corrugated iron roofing. (2) - Market scene, Huancayo, Peru. Decomposed wall in the foreground. All buildings have earth walls. (3) - Three story hotel of earth wall construction in Huancayo, Peru. (4) - Typical earth wall city, Tarma, Peru. Earth is used exclusively for building in most of the downs & cities of South America & Mexico. Walls are approximately 18" thick & painted with coal tar to a height of about 3 feet to prevent erosion, whitewashed above. Some foundations are of stone others of rammed earth only. (5) - Main thorofare Lima, Peru. Rock structure on one side of many erected to A.B. Leguia president of Peru. The posts of the arch are of rammed earth. (6) - Earth walls for fences. The rocks at bottom of wall are to prevent erosion of creek banks. Near Huancayo, Peru.
Box 61:10 2293a 2293b  **Adobe Apartment House, Wasco, Keru Co. 1926 October**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Across street from school house. (b) Row of apartments behind main structure. Note oven in foreground. Evidently an apartment for Mexicans attending school.

Box 61:10 2053a 2053b  **Adobe House Construction, Pat Thaanum, El Cecetro 1926 May**

Photographer: Fairbank, J.P.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Bricks 12" x 16" x 3" mixed with manure. 16" to 18" wall on 24" concrete foundation.

Box 61:10 1833  **Storage Ware House, Riverside Cal. 1925 June**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Monolithic Concrete and adobe block construction. Front of building of monolithic concrete, rear portion of adobe block 12' high with concrete plasters 20' (?) o.c., concrete plate, steel truss & galvanized iron roof. See trip report No. 17 for further details, (June 9)

Box 61:10 2324a 2324b 2324c 2324d  **Pise' de Terre Investigation, Poultry Plant, University Farm 1926 November**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Constructing 18' x 20' Poultry house. Showing house wearing completion and damage caused by 8" rainfall (no protection or covering on exterior wall)
Box 61:11

1843a 1843b 1843c 1843d 1843e Rural House of Adobe Bricks, U.S. Govt. Plant Acclimatization Station, Torrey Pines, California 1926 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
(a) A two-unit house - one side for living rooms, the other for bedrooms, exterior plaster of dirt with linseed and flushing oil coating. (b,c,d,e) A similar residence under construction. Note window and door casings and lintels, mud mortar joints except for lime mortar over openings, tile down spouts and electric conduit set into exterior wall and block fireplace. Adobe work done by Mexican laborers. Cretol, of Shafter, was doing the plastering and stuccoing after his patented process and advised putting downspout and conduit chases on interior wall to avoid expansion cracks.

Box 61:11

2840 Farm House, Near Yuba City 1929 February 16

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Adobe brick; Mr. and Mrs. P.S. Smith, owners.

Box 61:11

2311a 2311b 2311c 2311d Adobe Brick Construction 1927 January 18

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Damaged by earthquake; Calexico, 400 yards from Mexican boundary, a 2 story apartment and single story residence owned by J.O. Guatenaoma at 605 East 2nd Street. The 5 room residence was 18 months old and valued at $12,000 (33’ x 60’ with porch); the apartment was 6 months old, valued at $15,000 and was 27’ x 48’ with porches. The former had a light roof of roll roofing, exterior walls of 12” width of adobe brick laid in mud mortar. It was well built with concrete footings and a bond stone at the top of each story, the outside porch for the 2nd story was a cantilever sprung from the concrete bond stone. Wire lath was used around the wood lintels, for the porch posts and enclosure above. Nails were driven into adobe brick to hold stucco and plaster. On second story plaster and stucco were cracked in one or two places only. On 1st story all plaster and stucco were loosened and were being removed. The adobe bricks showed shear cracks in several places on lower part of wall but would probably only be removed at one corner and at center of rear wall on the apartment. The residence had exterior walls 24” thick and 12” partition wall lengthwise of house. The tile on the roof totaled 46,000 lbs according to Mr. Guaderrama; only 4 were displaced by the shake. (a & c) show the pieces of stucco still clinging to the residence as it was left following the shake. (d) shows the interior of the residence - the plaster and oil finish cost $1200. Note the 10’ ceilings and combination fan and lighting unit in the dining room. Both houses were equipped with modern fixtures - showers, electric stoves and electric water heaters.

Box 61:11

1835a 1835b Adobe Brick Making, El Centro, Imperial Valley 1925 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Preparatory to erecting residence; Showing manure pile and methods of piling blocks to cure. Mexican laborers had stopped on day picture was taken because a strong wind dried out blocks too rapidly.
Box 61:11  2314a 2314b 2314c  Adobe Brick Commercial Buildings, Heber and Calexico 1927
January 18

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
(a&b) The International Harvester Agency of Bates & Duncan in Calexico. Built in 1925
side wall thrown down several courses in center and rear wall thrown and torn down to
height of door head. Rear wall under reconstruction with concrete bond stone. (c) A hotel
and commercial structure in Heber, lower part adobe, upper part frame. Adobes showed
signs of failure in only one or two places.

Box 61:11  2295  Adobe Brick Residence, Marcus Woods, Monterey, California 1926 October

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Rebuilt in 1924 by owner from an old adobe erected by original Spanish builders of
Monterey. Roof tile came from an old Spanish Governor’s home (now a farm house) near
Jolon.

Box 61:11  1821a 1821b 1821c 1821d 1821e 1821f 1821g  Farm Residence, San Antonio Valley,
California 1925 June 12

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Different forms of adobe building; (a & b) Front and rear views of residence of Mr. B.F.
Patterson, Lockwood. House erected by “poured” method in 1900; stood the 1906 S.F.
Earthquake (c & d) ”Aloha”, (e) Rear view of the adobe brick residence on Pinkerton
Ranch, Puenta, which ”was an old house 42 years ago,” White washed walls, rock
foundation, new roof built over old. (f) Outbuilding on Pinkerton Ranch showing rock
foundation and raised roof (g) Outbuilding on B.F. Patterson Ranch erected in 1884 by
poured method. No foundation or protective coating. For further details see Trip Report
17, June, 12 1925.

Box 61:11  3885a 3885b 3885c 3885d 3885e 3885f 3885g  Adobe Structures, in and near Taos, New
Mexico 1933 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Native Mexican
Box 61:11 1832a 1832b 1832c Residence, Roy Baker Ranch, Saugus, Los Angeles County 1925 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Constructed of adobe brick; For details see trip report no. 17. (a) From railroad embankment. Note partially completed patio wall, swimming pool in patio and solar heater over kitchen porch at right. (b) Kitchen porch - note solar heater and false flue containing tank. (c) From front - note water supply tank at extreme hilltop in right background. (d) A.B. McIntyre stuccoing patio wall and his brother. They have patented machine to manufacture adobe blocks. Note concrete foundation and coping. (e) Corner of patio wall and garage - note lime mortar joints groove in blocks for plaster bond and method of forming arch.

Box 61:11 2305a 2305b 2305c Adobe Brick Farmhouse and Garage 1927 January 19

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Slightly damaged by earthquake. K.B. Correll Ranch 3 mi. North of Calexico; The house was built in 1923 of 4" x 12" x 16" block using 12" exterior walls and one partition wall of same thickness. It is approximately 30' x 40' with wood frame kitchen at end. Railroad ties were only foundation, every fifth course woven wire fencing was cut the width of the wall and laid in mortar joint. This undoubtedly held the wall together as adobes showed but a few minor cracks although interior plaster was badly broken. A wood plate and 2" x 10" joists were used, the joists left open at the ends to leave ventilation space. From 2 to 6" of puddled earth was placed above a top sheathing on the joists but as this leaked a roll roofing was placed on top of earth 2 years ago. There was no exterior coating and the bricks showed but little evidence of a 3.8" rain in as many days early in the month. A concrete floor throughout house had proven cold at first but since painting and waxing to break conductivity had been very acceptable. A fireplace was formed of adobes lined inside with cement plaster. The cost of the structure was about the same as a wood frame house of similar design. It averages 20 degrees cooler than the wood frame kitchen if kept closed and 10 degrees if opened.

Box 61:12 2667 Farm House, 4 miles southwest of Yuba City 1928 April 28

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Adobe brick; Built by Mrs. P.T. Smith during the summer of 1927. Visited by nearly 2000 people during the first 6 months after erection, 1500 of whom came during "Better Homes Week" April 22 - 28, 1928. The front room only (18' x 36') is of adobe brick.

Box 61:12 2323a 2323b Earthquake Damage 1927 January 18

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Calexico and Mexicali; (a) A brick residence on East Second St., Calexico 1 block from Guaderrama adobe residences, with walls badly sheared and thrown out. Note tie rods around top of wall. (b) A native school house in "New Town" Mexicali with badly cracked adobe walls. Will probably have wood frame work built inside to support roof. School meanwhile being held in airplane hangar 2 blocks distant.
Box 61:12 2114a 2114b **Adobe Block Construction, 18th and J Street, Sacramento 1926 May - June**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

(1) Concrete window sills poured in place. Retaining board nailed direct to adobe brick, (2) Rafters over porch notched into adobe brick with no retaining sill. Ordinary wood chisel used to cut notches.

Box 61:12 1838a 1838b 1838c **Mexicali Structures, Mexicali, Lower California, Mexico 1925 June**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Showing native house of adobe brick. (a) Typical native shack of better class with whitewashed front; (b) more pretentious native home with porch all around for coolness; (c) the governor’s “palace”, housing the executive offices of the Mexican state.

Box 61:12 1857a 1857b 1857c **Sulphuring House, Kearney Park Ranch, Fresno, California 1925 May**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Adobe brick walls, concrete slab roof; (a) Rear view showing sulphuring hole and overhanging roof, (b) front showing steel sliding doors (c) interior of packing shed showing arrangement for placing fruit on trays without handling. For details see Trip Reports of E.G. McKibben and J. D. Long (no. 17).

Box 61:12 2201a 2201b 2201c **Adobe Brick Poultry House 1925**

Photographer: Langley

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Seth Langley Ranch, Box 148, R. 2, Tucson, Arizona. Laying house with incubation room at end. House faces south and has adobe roof covering. (For complete description see letter of Aug. 1926, to Prof. Lloyd, Poultry Division.

Box 61:12 2329a 2329b **Adobe Brick Construction, Mexicali 1927 January 18**

Photographer: Long, J.D.

Subjects and Indexing Terms

.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Bonding broken brick and stone in every other mortar joint to provide bond for stucco.
Box 61:12 2093a 2093b **Adobe Brick Construction, 19th and X Street Sacramento, California 1926 June**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Laying a garage wall; (a) Laying the mud mortar with a shovel; (b) Spreading the mortar with a wool float; (c) Laying the brick in place; (d) Starting a new corner laying brick in mud mortar over concrete floor foundation.

Box 61:12 2254a 2254b 2254c **Adobe Construction, Visalia, California 1926 October**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
F. B. Office - Tulare County; (a) Asst. Farm advisor Gilfillan standing beside small test wall covered respectively with cement wash and cement stucco. (b) The borrow pit 16' wide 200' long where adobes for entire building were made. (d) Key block for patio arches and homemade knife used to cut adobes in mold after pouring.

Box 61:12 2844 **Farm House, between Farmersville and Visalia 1929 February 21**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Exterior walls of poured adobe; erected by Mr. and Mrs. J. W. Murphy in 1926.

Box 61:12 2276a 2276b 2276c 2276d **Pise de Terre Construction 1926 October**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Investigation at University Farm; Poultry Plant, U. Farm.

Box 61:12 1828 **Earth building 1925 June**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
(a) What happens to earth walls when roof is removed. Old storage shed on highway Redlands to San Bernadino. (b) Experimental rammed earth wall and rammer used in preliminary pise de terre investigations, University Farm, spring 1925. Had been exposed to 2" of rainfall at time picture was taken.
Box 61:12

1320a 1320b 1320c 1320d 1320e **Adobe Construction, Dutton Hotel, Jolon 1925 August 17**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**

Main walls of hotel of adobe; Main structure adobe 75 yrs. old, built onto 45 years ago. Rear wall unplastered above 3' height; 2" wooden plate at top of window height; 2' plate to carry 2" x 8" second floor joists; mud mortar between blocks; plaster on front lined to resemble stonework, cracked in places at 2nd floor joist level (earthquake settlement?) but has been in place 40 years or more. A small store room at rear is of poured adobe. A short section of wall at the left of 4 (b) is built of roof tiles laid in mortar.

Box 61:13

1825a 1825b **Farm Residence, Ojai Valley 1925 June**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**

Built of adobe brick; Two story building with double deck porch around 3 sides. Corners protected by vertical corner boards.

Box 61:13

1827a 1827b 1827c 1827d 1827e 1827f **“Caledonia,” San Miguel, San Luis Obispo County, California 1925 June**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**

Details of construction; See other card for exterior view and trip report no. 17 (June 12) for details of inspection. (a) View along rear wall showing decaying lintels and failure at base of wall - no foundation. (b) View at corner showing condition of adobe plaster under porch and weathered condition on end of structure. (c) Interior showing wall paper on mud plaster, wood nailing plugs inserted in wall for chair rail and exposed blocks where door casing was torn off (d) Gable end showing large wood block at peak to carry ridge pile, (e) Gable end showing one story partition walls of adobe block and wooden plate carrying 2nd story floor joists in wall. (f) closeup of ridge beam post support showing shaped cap and ridge beam of 2-2"x10" laid horizontal, pole rafters nailed to ridge with wrought iron nails and vertical board sheathing to carry roofing tile.

Box 61:13

2283 **Adobe Construction, Havilah, Kern Co. 1926 October**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**

Old bank building; Loose rock foundation, lime plaster stucco.
1844  Machine Shed of Adobe Block, U.S. Govt. Plant Acclimation Station, Torrey Pines, California 1925 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Dirt plaster and oil exterior coating; Constructed of adobe blocks made from red "foothill" soil on the site and stuccoed outside with a similar soil plaster. Oil coating of linseed and motor flushing oil gave hard surface. Several coatings were being tried experimentally on the end of the shed.

2286a 2286b 2286c  Pise de Terre Poultry Houses, Kern County 1926 October

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Ranch of Fred Brown and Bro. 8 miles west of Bakersfield. (a&b) Half monitor poultry house, concrete floor and foundations, 10 inch rammed earth wall of sandy loam soil. (c) Gable roof brooder house, 8 inch walls of rammed earth between wood studs. Note ventilating flues which rise from floor. Cement stucco used on both houses, came off except where placed on wire netting. Rammed earth used when adobe brick construction "became too tedious". Forms were made of 1" material very loosely joint together and held in place by wooden braces. A 2" x 4" was used as a rammer.

1786a 1786b 1786c 1786d 1786e  Pise de Terre Apple Store House, C.E. Smith Ranch, Temptelon, San Louis Obispo County 1925 February

Photographer: Coke, J. Earl

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Earth rammed in and over original tank tower framing; Pise work 13’ x 13’ at bottom, 14’ high and 12.5’ x 12.5’ at top. (Would have been easier to make walls straight.) Ten inch earth walls rammed between tower members. Clay loam soil used. Time required - 2 weeks of intermittent working. Cement wash covering. For further details see Coke's letters of Feb 28 and March 7, 1925.

abcd  Pise de Terre Construction undated

Photographer: McAninch, A.N.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Fred Heiskell Residence Little Rock, Ark.; 20 miles from Little Rock. (a) Front elevation of main portion of house (b) Rear elevation of main portion of residence just after walls were completed and felt roof applied. (c) West elevation of house, garage, servants room and passage way foundation in foreground. (d) Interior view showing open beam ceiling.
Box 61:13  abcde  **Pise de Terre Construction undated**

Photographer: McAninch, A.N.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Fred Heiskell Residence - Little Rock, Ark.; (a) Full crew just as last portion of earth wall was completed. (b) Garage walls just started. (c) Detail showing method of pouring earth into forms (d) Showing two laborers with heavy tamp (e) Showing form just removed from portion of completed wall.

Box 61:13  2099a 2099b  **Adobe Brick Construction, 18th and X Street Sacramento 1926 June**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Fireplace Construction; (1) Junction of adobe brick of wall and burned brick of fireplace; (2) fireplace boxed in to protect face brick; Ceiling joists supported in 1” x 6” sill set in mortar joint of adobes.

Box 61:13  2266a 2266b 2266c 2266d  **Adobe Brick Construction 1926 October**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Oldest house in Madera Co. Constructed as headquarters on Indian Reservation; Sierra Vista Ranch - 1 mile west of Madera-Modesto Hwy, just across county line. (a) Old house, no coating on brick, no deterioration noticeable except at rear where unwalled cellar was caving and permitting wall to settle. (b) Closeup of main entrance showing excellent quality brick with but slightly worn corners to door opening (c&d) Two views of adobe structure 100 yds. distant from house probably used designed as Indian trading store; now used for bunk house. Walls coated with tar which was blistering and peeling. No apparent foundation.

Box 61:14  2310a 2310b  **Adobe Brick Residence 1927 January 17**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
E. Girard, El Centro, Built in 1925, cost $10,000 approx. Suffered but a few minor plaster cracks in 1927 earthquake. Mrs. Girard found it very comfortable and had stayed in the valley all summer since living in it. She stated it cooled off readily.

Box 61:14  1786f 1786g  **Pise de Terre Apple Stone House undated**

Photographer:

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Box 61:14

1747a 1747b Pise de Terre Investigation, Farm Structures Lab University Farm, Davis
1924 December, 9

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Ramming of test blocks; (a) General view of equipment with earth piles and screen to right and some of the first blocks rammed at left. (b) Student helper holding 6" x 6" - 14 lb. iron tamper used for most of work. Three different shapes of wood tampers in background.

Box 61:14

2009 Adobe Garage 1925 January

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Constructed by "Poured Method"; Mr. Neveker's ranch, near Five Points, 7 mi. N.W. of Lancaster. Has a mud block house and this garage of poured earth. Used wood forms for later, said metal could be better as wood warped and gave trouble. Cost estimated at about the same as more permanent type construction. Exterior given a cement wash.

Box 61:14

2268a 2268b 2268c 2268d Adobe Construction, 5 miles north Chowchilla 1926 October

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Old Winery, Sierra Vista Ranch; (a) Concrete foundation, adobe block walls approx. 2 ft. thick and 14' high, burned brick casings around openings. Overall dimensions 72'x150'. Walls coated with tar which was peeling off. (b) End of winery showing openings blocked, later opened by laborers using structure for bunk house. (c&d) Stable of adobe brick behind winery. Walls tarred and peeling. Note excellent use of burned brick about openings.

Box 61:14

2320a 2320b 2320c Adobe Brick Failure 1927 January 18

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Due to earthquake; Mexicali; (a&b) Native residences of poor design and construction. The two adobe brick failures found in earthquake zone which might have caused loss of human life. (c) A native bar room being torn down.

Box 61:14

2322a 2322b 2322c Adobe Brick Residences, "New Town" Mexicali and Calexico 1927 January 18

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Damaged by earthquake; (a&b) Views of a Mexicali residence with wood frame being built inside to support roof, (c) Calexico residence of adobe with north (front) wall sheared and leaning out 10 inches at top. Wood frame being built inside, adobe wall to be pulled back plumb to serve as a veneer. Neither building had a foundation.
Box 61:14

1410a 1411b 1406e 1409c 1408d 1407f **Adobe Brick Construction, Rosecran’s House - Athens 1925 Spring**

Photographer: Ryerson, Knowles

Subjects and Indexing Terms
.
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

House and garden walls of adobe; (See Ryerson’s letter of Apr. 7, 1925; (a) Finished and unfinished gateway posts (b) Stepping wall to accord to ground slope (c) Method of joining wall and house (d) Pilasters to strengthen wall (e) Unfinished side of adobe wall of small bricks (f) Unfinished garage wall. Note knife lying in mortar joint.

Box 61:15

1836a 1836b 1836c 1836d 1836e **Making Adobe Block, Mexicali, Mexico 1925 June**

Photographer: Long, J.D.

Subjects and Indexing Terms
.
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Typical Mexican Style; Two Mexican carpenters making adobe brick on vacant lot. Capacity - 2 men - 250 bricks per day. Sell on the lot at $30.00 per M.

Box 61:15

2312a 2312b 2312c **Earth Ware Building, Mexicali, Mexico 1927 June 17**

Photographer: Long, J.D.

Subjects and Indexing Terms
.
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Unique methods of construction; (a) Pole frame with “cajon”, (b) Poured earth with vertical studs and exterior braces; (c) Path and studs with “cajon” filling.

Box 61:15

3199 **Adobe House, Davis, California 1930 December 3**

Photographer: Weston, E.W.

Subjects and Indexing Terms
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.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Pise de Terre Construction; House built by J. D. Long, in fall of 1929.

Box 61:15

1317a 1317b **San Antonio Mission, Jolon 1925 August, 17**

Photographer: Long, J.D.

Subjects and Indexing Terms
.
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note

Second oldest mission in California. Original tile roof has been replaced with shingles. Facade is of burned tile, all main walls of adobe block. Two kilns for burning tile show at the left in 1 (b). Nearly all the arches and openings, including those in the main walls of the structure, are supported by timbers recently placed.
Box 61:15 1826a 1826b 1826c **Old Mission Remains, San Juan Capistrano, San Luis Rey (Oceanside), San Miguel 1926 June**

Photographer: Long, J.D.

**Subjects and Indexing Terms**
- 1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**
Adobe block construction. San Juan Capistrano (a) Reconstruction work and old stone church, (b) Remains of original walls and arches. San Luis Rey (c) Remains of outer walls standing without protection in semi-decay. San Miguel - main part has stood without restoration. (d) Main edifice from rear, (e) from rear across court yard, (f) Walls soon go down without roof protection, (g) Showing method of forming openings in court yard wall.

Box 61:15 2289a 2289b 2289c 2289d **Adobe Construction, Tejon Pass, Kern County 1926 October**

Photographer: Long, J.D.

**Subjects and Indexing Terms**
- 1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**
Fort Tejon, established Aug. 10 1854, abandoned Sept. 11, 1864. (a) Officers barracks, orderlies' rooms behind. (b&c) Officers barracks - new g.i. roof - Note truss rods bolted at top of end wall. (d) Orderlies' rooms.

Box 61:15 2282a 2282b **Adobe Construction, Sacramento, California 1926 July**

Photographer: Long, J.D.

**Subjects and Indexing Terms**
- 1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**
Sutter's Fort.

Box 61:15 2307a 2307b **Adobe Brick Construction, Sonoma Mission, Sonoma, California 1927 January 27**

Photographer: Long, J.D.

**Subjects and Indexing Terms**
- 1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**
The 21st and last of the Missions established in 1823. This structure was probably erected in 1824, was badly weakened by earthquake in 1906 and restored by a local women's club as shown. Note the low concrete abutment running entirely along chapel wall, the lime mortar use din rebuilding the gabel end and parallel wall, and the 2” reinforcing members laid in the new work.

Box 61:15 3884a 3884b 3884c 3884d 3884e 3884f 3884g **Adobe houses, New Mexico. 1933 June**

Photographer: Long, J.D.

**Subjects and Indexing Terms**
- 1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**
(a) Old residence remodeled for artists homes, Albuquerque. (b) Front gate of above. (c) one of older homes in Taos. (d-g) Newer homes in Taos.
Box 61:15 3903a 3903b 3903c 3903d 3903e 3903f 3903g Commercial Structures of Adobe, New Mexico and Arizona 1933 June
  Photographer: Long, J.D.
  Subjects and Indexing Terms
  .1 Materials, manufacture, tests, strength, preservation, etc.
  Scope and Content Note
  (a) Sigma Alpha Epsilon fraternity house, Albuquerque. (b) Service Station and Garage, Albuquerque. (c) Auto Camp, Albuquerque. (d) Hotel Taos (e) Bank and Farm advisor's office, Taos (f) Large wholesale warehouse, Gallup. (g) Garage and service station under construction in Northern Oklahoma.

Box 61:16 3892 Adobe Brick Camp House, Nut Tree roadside stand near Vacaville 1934 August
  Photographer: Long, J.D.
  Subjects and Indexing Terms
  .1 Materials, manufacture, tests, strength, preservation, etc.
  Scope and Content Note
  Concrete Cap, not exterior wall treatment.

Box 61:16 3889a 3889b Old Mexican Church, Near Taos, New Mexico 1933 June
  Photographer: Long, J.D.
  Subjects and Indexing Terms
  .1 Materials, manufacture, tests, strength, preservation, etc.
  Scope and Content Note
  Adobe Brick Construction.

Box 61:16 3880a 3880b 3880c Adobe Construction 1933 August
  Photographer: Long, J.D.
  Subjects and Indexing Terms
  .1 Materials, manufacture, tests, strength, preservation, etc.
  Scope and Content Note
  Hindman house near Lafayette.

Box 61:16 3883a 3883b Adobe Brick residence, Bakersfield, California 1933 June
  Photographer: Long, J.D.
  Subjects and Indexing Terms
  .1 Materials, manufacture, tests, strength, preservation, etc.
  Scope and Content Note

Box 61:16 3881a 3881b 3881c Cement tests in silo, Davis. 1933 August
  Photographer: Long, J.D. and Fairbank, J.P.
  Subjects and Indexing Terms
  .1 Materials, manufacture, tests, strength, preservation, etc.
  Scope and Content Note
Box 61:16 3882a 3882b  **Primitive houses of natural materials, near Flagstaff, Arizona. 1933 June.**

Photographer: Long, J.D.

**Subjects and Indexing Terms**
.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**
Navajo Indian hogans. Interior about 24 ft. in diameter. Dome shaped roof.

Box 61:16 abcd  **Pise de Terre Construction, 20 miles out of Little Rock. 1926 August**

Photographer: McAninch, A.N.

**Subjects and Indexing Terms**
.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**
Residence of Fred Heiskell, managing editor of the Arkansas Gazette, Little Rock, Ark. (a) Main entrance showing stuccoed earth wall. Aug. 22, 1926. (b) Rear elevation detail of tiled pool (c) Front elevation (d) Detail of servants quarters and garage, West elevation of building (e) Rear or south elevation, showing west wall of patio to right with entrance in center of wall (f) East elevation showing sleeping porch. (g) Rear of garage to left, west elevation of building, wall to right is the w. wall of patio.

Box 61:16 2319a 2319b 2319c  **Adobe Brick Structure, Calexico and El Centro 1927 January 18**

Photographer: Long, J.D.

**Subjects and Indexing Terms**
.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**
Undamaged by earthquake. (a) Small residence on East Second Street, Calexico undamaged by quake. Has no foundation but concrete bond stone at top of wall. Pile of debris at side is broken stones for putting in mortar joints of adobe brick walls to bond stucco, (b) A Mexicali residence near Palace with concrete drain around all walls. Crack at right of facing door caused by water seeping from above. (c) Adobe brick home near Palace undamaged by quake.

Box 61:16 2294a 2294b  **Adobe Construction, Weit's Cottage Hotel, Wasco, Kern Co. 1926 October**

Photographer: Long, J.D.

**Subjects and Indexing Terms**
.1 Materials, manufacture, tests, strength, preservation, etc.

**Scope and Content Note**
One of several cottages (2 adobe) used for transient hotel. Proprietor prefers adobe construction when he can do it himself but cannot secure competent workmen so is building other structures out of frame.
Box 61:16

abcdef Earth Wall Construction, Farm Buildings near Rugby, N.D. 1924 September
Photographer: Page, W.R.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Pise and cob in North Dakota. Page is agricultural development agent for Great Northern R.R. See letter of Nov. 30, 1924. (a) Rammed earth hen house built in summer 1924 plastered with cement. (b) Rear view of hen house. Mixture of 1/3 yellow clay and 2/3 sandy loam gave best results. (c) Cob henhouse 5 years old, not water proofed. Unevenness of mixing straw caused rough surface, (d) Cob house 12 years old on same farm as (d) Walls about 12” thick. Stucco spilled off apparently due to water working in at eaves. Plaster finish inside in perfect condition. Views taken 2/5 same 5 or 6 months after house was built. (f) shows where cement and plaster on front wall had come off. All other exterior and interior walls had sound plaster coat indicating that too rapid drying out of the plaster on the south wall exposed to the sun was the cause of the failure.

Box 61:17

3195 Adobe House, El Centro, Imperial Co. 1930 December
Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Emery Girard’s home in El Centro.

Box 61:17

1834a 1834b 1834c Residences, Erected by Mr. Fred Roskop on La Mesa, Santa Barbara 1925 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Adobe Brick Construction. Typical residences as erected by Mr. Roskop at costs the same as equal construction in frame. See Trip report #17, June 11.

Box 61:17

1846a 1846b Torrey Pines Road House, on highway no. of San Diego 1925 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Wall up from highway and exterior walls of structure of adobe brick. Plaster causing difficulty as evidenced by cracked and patched places.

Box 61:17

1824a 1824b 1824c 1824d General Purpose Barn, Libby Estate, Ojai, California 1925 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Erected of adobe blocks. Well constructed and embodying many artistic features. Bricks laid in mud mortar and whitewashed both inside and out. Details show wood lintel and fireplace flue at second story height. John Byers, Santa Monica, architect.
Box 61:17 2327a 2327b 2327c 2327d **Pise de Terre Construction, Poultry Plant, University Farm.**

*1926 October*

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Investigations at University Farm.

Box 61:17 2842 **House, Bakersfield 1929 February 22**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Exterior and interior walls of adobe brick. Exterior finish are brush coat of cement wash.

Box 61:17 2848a 2848b **Adobe Construction, San Francisco Presidio 1929 March 13**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Adobe brick structure erected about 1776 by Spanish military then occupying site. Now used as officers club.

Box 61:17 3888a 3888b **Adobe Farmhouse, W.T. Kirkman Nursery. Bethany, California 1933 August**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Brelin archeitect and builder.

Box 61:17 1837a 1837b 1837c 1837d 1837e 1837f **Mexican Structures, Mexicali, Mexico 1925 June**

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Box 61:17 1845a 1845b 1845c  Cottages of Adobe Block, U.S. Govt. Experiment Station, Shafter California 1925 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
All erected of adobe brick by Mr. Cretol, an artisan of Shafter. (a) Office and cottage, (b) laborers cottage, (c) One room "bunk house," with wash room and shower at right. Note lattice work above latter.

Box 61:18 2279a 2279b 2279c 2279d  Pise' de Terre Construction, University Farm, Poultry Plant 1926 October

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Investigations at University Farm; the concrete foundation.

Box 61:18 2275a 2275b  Pise de Terre Construction, Poultry Plant, University Farm 1926 October

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Investigation at University Farm; Cracking over air opening.

Box 61:18 1840  Farm Residence, Imperial Valley on highway, Brawley to Westmorland 1925 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Adobe block construction; Evidently no foundation, wide porch on south and west, opening under roof at eaves.

Box 61:18 2306a 2306b  Earth Wall Construction, Mexicali, Mexico 1927 January 18

Photographer: Long, J.D.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
Unusual Methods; (a) Vertical studs stripped with lath and the spaces between filled with cajon. (b) Poured earth between vertical studs and with exterior horizontal reinforcing.

Box 61:18 ab  Earth Wall Construction undated

Photographer: Rephotographed from pictures used in manuscript for U.S.D.A. circular.

Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.

Scope and Content Note
(a) Sod house with roof covered with sod and adobe block building.
Box 61:18  ab Adobe Brick Farm House, William Watt Ranch, Napa 1927 February
   Photographer: Baade, H.J.
   Subjects and Indexing Terms
     .1 Materials, manufacture, tests, strength, preservation, etc.
   Scope and Content Note
     (a) Rear view (b) rear veranda.

Box 61:18  2308a 2308b Calexico City High School, Imperial Valley 1927 January 18
   Photographer: Long, J.D.
   Subjects and Indexing Terms
     .1 Materials, manufacture, tests, strength, preservation, etc.
   Scope and Content Note
     Damaged by earthquake; Brick building being built in 1915 during period of earthquake shock, building condemned in 1923 but reinforced concrete buttresses were placed as shown and are credited with holding the building upright.

Box 61:19  2094 Adobe Brick Construction, 39th & E Street, Sacramento 1926 May - June
   Photographer: Long, J.D.
   Subjects and Indexing Terms
     .1 Materials, manufacture, tests, strength, preservation, etc.
   Scope and Content Note
     (1) Mixing in box and hauling to level site for farming; (2) filling the form, (3) Leveling off the top; (4) moving the form (note that in this instance the form is circular in shape to form blocks for the walls of a semi-circular patio); (5) cleaning the form with wet rag to secure perfectly formed brick (water bucket in foreground)

Box 61:19  2271a 2271b 2271c Pise de Terre Investigation, Poultry Plant, University Farm 1926 October
   Photographer: Long, J.D.
   Subjects and Indexing Terms
     .1 Materials, manufacture, tests, strength, preservation, etc.
   Scope and Content Note
     Constructing Poultry House

Box 61:19  1404a 1405b Adobe Brick Manufacture 1925 May
   Photographer: Ryerson, Knowles
   Subjects and Indexing Terms
     .1 Materials, manufacture, tests, strength, preservation, etc.
   Scope and Content Note
     Gradual; (a) Difference in color of bricks probably due to moisture content. (b) Bricks stood on edge to better dry out.

Box 61:19  1839 Adobe Brick Construction, Calexico, California 1925 June 5
   Photographer: Long, J.D.
   Subjects and Indexing Terms
     .1 Materials, manufacture, tests, strength, preservation, etc.
   Scope and Content Note
     An addition to cleaning establishment of similar construction. Note reinforced concrete beam at ceiling height. For further details see Trip Report no. 17.
Box 61:19  2270  **Pise de Terre Construction, Poultry Plant, University Farm 1926 November**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.1 Materials, manufacture, tests, strength, preservation, etc.  
Scope and Content Note  
Showing Frank Hall sawing a test wall into blocks to be tested for compression strength.

Box 61:19  2274a 2274b 2274c  **Pise de Terre Investigation, Poultry Plant, University Farm 1926 October**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.1 Materials, manufacture, tests, strength, preservation, etc.  
Scope and Content Note  
Fastening rear plate.

Box 61:19  2278a 2278b 2278c 2278d  **Pise de Terre Construction, Poultry Plant, University Farm 1926 October**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.1 Materials, manufacture, tests, strength, preservation, etc.  
Scope and Content Note  
Investigation at University Farm; Arranging forms and hauling earth.

Box 61:19  3645a 3645b 3645c  **Adobe brick construction, "Lakeside," Walnut Creek, California 1932 Fall**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.1 Materials, manufacture, tests, strength, preservation, etc.  
Scope and Content Note  
Weekend cottages of adobe erected by speculative builder. Both sold.

Box 61:20  2641a 2641b 2641c  **Experimental pise de terre construction, University Farm. 1927 February 17**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.1 Materials, manufacture, tests, strength, preservation, etc.  
Scope and Content Note  
A 50 mph wind from the south on the night of the 16th entered the open front of the uncompleted house and carried the roof 100 feet to the rear. The 6" front wall was not worth saving, the 9" end wall was knocked over but the two 12" walls were almost intact. The roof was not damaged but had to be torn apart for rebuilding. Note the top layers of the rear wall still clinging for the full depth and length of the plate bolts which were tamped in place.

Box 61:20  2806a 2806b 2806c 2806d  **Adobe Brick Manufacture for Residence, U.S.D.A. Experimental Station, Shafter, Tulare Co. 1924 September**  
Photographer: Wallace Sullivan Co., Agent Kings Co. Hanford, California  
Subjects and Indexing Terms  
.1 Materials, manufacture, tests, strength, preservation, etc.  
Scope and Content Note  
See Camp's letter of Nov. 12, 1924 and Sullivan's letter of Dec. 3, 1924. (a) Preparing the adobe, (b) placing adobe in the molds, (c) Placing bricks in the dry yard (d) sun drying the bricks. (See other card for pictures of completed building.)
Box 61:20 3321 **Adobe Construction, Liberty Park, Salt Lake City, Utah. 1931 July**
Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Old adobe brick structure presumably built for mill. Dated 1852.

Box 61:20 3281 **Hospital Barn, Cheyenne Wells, Colorado Exp. Farm 1931 July**
Photographer: Long, J.D.
Subjects and Indexing Terms
.1 Materials, manufacture, tests, strength, preservation, etc.
Scope and Content Note
Adobe brick; Adobe bricks 6" x 12" x 24". Roof a 3/4" concrete slab laid in solid sheathing and reinforced with chicken netting.

Box 61:20 3814a 3814b 3814c **Mud Sills, Termites, Davis 1934 June 3**
Photographer: J.S.W.
Subjects and Indexing Terms
.10 Materials, manufacture, tests, strength, preservation, etc.: General
Scope and Content Note
Griffin's House (Re-construction) (a) Forms and Concrete for new porch, (b) Replacing mud sills with concrete foundation (c) Termites - old mud sill

Box 61:20 3155a 3155b 3155c **Wood Preservation, Agricultural Engineering Building 1930 July**
Photographer: Long, J.D.
Subjects and Indexing Terms
.11 Materials, manufacture, tests, strength, preservation, etc.: Wood
Scope and Content Note

Box 61:20 3167 **Wood Durability Test, Agricultural Engineering Building 1930 September 25**
Photographer: Weston, E.W. for Long, J.D.
Subjects and Indexing Terms
.11 Materials, manufacture, tests, strength, preservation, etc.: Wood
Scope and Content Note
Specimens of various grades of redwood, one white pine and on douglas fir, after 2.25 years partial burial in ground at Woodland, California with resulting termite and fungus damage. (See project 396-I)

Box 61:20 3303 **Log Barn undated**
Photographer: Long, J.D.
Subjects and Indexing Terms
.11 Materials, manufacture, tests, strength, preservation, etc.: Wood
Scope and Content Note
East of Salt Lake City, Utah
Box 61:20 6645a 6645b 6645c 6645d  Grape stakes incised with axe, Davis, Farm Structures Lab
1948 October 11

Photographer: Neubauer, L.W.
Subjects and Indexing Terms
.11 Materials, manufacture, tests, strength, preservation, etc.: Wood
Scope and Content Note
Incisions at various depths. Special incising tool. Six teeth fastened to head of axe. (Cost is $5.00). Teeth are too long for grape-stakes. Splinters chipped out. Posts were weakened about 50%.

Box 61:20 3890a 3890b  U.C. Agricultural Engineering Building [Walker Hall] 1933 August

Photographer: Long, J.D.
Subjects and Indexing Terms
.12 Natural Stone

Box 61:20 3900a 3900b 3900c 3900d 3900e  Natural Stone Construction 1933 July

Photographer: Long, J.D.
Subjects and Indexing Terms
.12 Natural Stone
Scope and Content Note
(a) Residence near North Sacramento, (b) Farm residence near Boulder, Colorado, (c) (d) (e) Auto camp near Boulder, Colorado

Box 61:20 1375  Superfluous Use of Concrete, A.L. Fairbanks Ranch, 7 miles south of Arbuckle 1923 October

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.14 Concrete, cement, sand, gravel
Scope and Content Note
Low shed built for poultry home with concrete foundation and side wall some 3 feet high. Note result of rough forming and boulder near bottom.

Box 61:20 1631a 1631b  Concrete Building Block, Ames, Iowa 1924

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.14 Concrete, cement, sand, gravel
Scope and Content Note
T-shaped block designed by Henry Geise, I. S. C. for economy of material and general utility and adaptability. The blocks shown were the first experimental ones and are used as uniform as the later products.

Box 61:21 3346a 3346b 3346c  Plastering, Agricultural Engineering Building 1931 September 29

Photographer: Weston, E.W.
Subjects and Indexing Terms
.15 Lime and plasters
Scope and Content Note
Demonstration Panels. Plastering demonstration Lumbermens Conference, September 19, 1931.
Box 61:21

2267a 2267b 2267c  

**Painting Asphalt Roll Roofing, Poultry Husbandry Plant, University Farm 1926 November**

Photographer: Long, J.D.

Subjects and Indexing Terms

.15 Lime and plasters

Scope and Content Note

(a) Heating the asphalt paint. Note furnace - 10 gal. milk can with hole in side and top removed. (b) Roof is swept and hot paint applied with fiber brush. (c) Painting roof of chicken house.

Box 61:21

abc **Mission San Antonio de Padua, Jolon 1925**

Photographer: Shaw, C.F.

Subjects and Indexing Terms

.15 Lime and plasters

Scope and Content Note

Erected about 1787. (a) General view of mission structures. (b) Forepart of mission, kiln for burning tile in immediate foreground. Note shingle roof on main structure and supports placed under arches at right. (c) Section of wall remaining near main structure. Protection afforded by tile coping sufficient to prevent total destructive weathering. Note stones at base for foundation, or more likely, protection against mechanical wear.

Box 61:21

abc **Adobe Tests 1925 December**

Photographer: Matthews for Long, J.D.

Subjects and Indexing Terms

.15 Lime and plasters

Scope and Content Note

Some of work conducted on Berkeley campus during fall of 1925. (a) Standard concrete molds loaned by C.E. Div. for compression and tension specimens. Note difference in shrinkage of wet and dry mixes in compression briquettes. (b&c) Typical failure types secured in compression specimens - bursting at mid section, diagonal shear and splitting with cone at base or top. See project report 396-H for more complete description.

Box 61:21

Adobe Tests 1925 December

Photographer: Long, J.D.

Subjects and Indexing Terms

.15 Lime and plasters

Scope and Content Note

Some of work conducted on Berkeley campus during fall of 1925. (d) Differential shrinkage of various soils. (e) Typical failures of compression briquettes sawed from adobe brick from recent structure (age 20 years?) in Brawley, Imperial Valley. (f) Other specimens from Brawley brick showing grain head and straw in brick and hard lumps and a cavity - the result of imperfect mixing.
Box 61:21


Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.15 Lime and plasters

Scope and Content Note
Earth structure attached to newer frame portion. Oldest structure in that locality. Used as fruit and vegetable storehouse. Has not proven unqualifiedly successful due to lack of attention being given to ventilating system, windows in end and side walls. (a) Note roof louver, ceiling joists acting as cross tie and lower chord for rafter truss, slight roof overhand, plaster washed off wall from base upward, deep layers of earth indicating poured construction, and weathering at base due to lack of foundation. (b) Note open ventilating windows, crack under end window and unprotected corners.

Box 61:22

1253 Irrigation Ditch, Covina 1923 June

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.223 Flood control

Scope and Content Note
Concrete curb to prevent excessive erosion by flood water from the mountains in southern California.

Box 61:22

2665a 2665b 2665c Flood Control, Los Angeles County, California. 1928 May 5

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.223 Flood control

Scope and Content Note
Pacoima Dam, near Los Angeles. (a) unfinished top (b) up stream (c) top of dam

Box 61:22

2665d 2665e 2665f 2665g Flood Control Los Angeles Co., California 1928 May 5

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.223 Flood control

Scope and Content Note
Pacoima Dam, near Los Angeles. (d) Gorge below Pacoima Dam (e) Chuting cement from skip into bin. (f) Contractor’s skip (g) State inspector ordered 60,000 cu. yards earth and rock removal for safety.

Box 61:22

2664a 2664b 2664c Flood Control Los Angeles County, California 1928 May 5

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.223 Flood control

Scope and Content Note
Santa Anita Dam, Los Angeles County, California. (a) Top and downstream face. Screen at left keeps drift out of spillway. (b) Two needle valves enable control of amount of water released. When valve is wide open and reservoir full stream is split by a deflector to prevent erosion of stream bed. (c) A few small leaks come through the dam.
Box 61:22  691 **Flood control undated**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms .223 Flood control
Scope and Content Note
Improving system between Covina and Azusa.

Box 61:22  748 **Pumping Plant Engine, Fresno County 1922**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms .224 Pumping plants
Scope and Content Note
"For want of a better pump house."

Box 61:22  2428 **Pumping Plant, San Diego Valley 1925 October**
Photographer: Moses, B.D.
Subjects and Indexing Terms .224 Pumping plants
Scope and Content Note
Electric motor pump house

Box 61:22  2454 **Pump House, near Petaluma 1927 March 22**
Photographer: Moses, B.D.
Subjects and Indexing Terms .224 Pumping plants
Scope and Content Note
Electric motor pump house

Box 61:22  1290 **Soil Erosion, Watsonville 1922 October**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms .26 Soil erosion
Scope and Content Note
Watsonville

Box 61:22  692a 692b **New River undated**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms .26 Soil erosion
Scope and Content Note
Cut by the Colorado River when it broke through the delta. New River - Signal Mt. in distance on Mexico line.

Box 61:23  2453a 2453b 2453c 2453d **Owens Valley Water Shed, Independence 1926 February**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms .31 Irrigation
Scope and Content Note
Looking west on east side of Sierra Mts. in Owens Valley.
Belts and Belting, Sutter Basin Co., Grafton, California 1920 June

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.31 Irrigation
Scope and Content Note
(a) Water driven irrigation pump - side view. (b) End view.

Box 61:23

Hydrant Irrigation, San Dimas 1926 October

Photographer: Moses, B.D.
Subjects and Indexing Terms
.312 Irrigation: Conveyance of water (Canals, canal linings, see page losses, tunnels, flumes, pipes and inverted syphons)
Scope and Content Note
3/4" hydrants are located at the head of the ditch which traverses the orchard.

Box 61:23

Irrigation, Anaheim 1923

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.312 Irrigation: Conveyance of water (Canals, canal linings, see page losses, tunnels, flumes, pipes and inverted syphons)
Scope and Content Note
Distribution devices

Box 61:23

Home Made concrete Tile Forms, Sonoma County 1923 July

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.312 Irrigation: Conveyance of water (Canals, canal linings, see page losses, tunnels, flumes, pipes and inverted syphons)
Scope and Content Note
of Galvanized iron with hasp fastener with wood tops and bottoms.

Box 61:23

Concrete Irrigation Pipe, San Dimas 1926 October

Photographer: Moses, B.D.
Subjects and Indexing Terms
.312 Irrigation: Conveyance of water (Canals, canal linings, see page losses, tunnels, flumes, pipes and inverted syphons)
Scope and Content Note
Showing Concrete Outlets.

Box 61:23

Irrigation Structures - Flumes 1925 August 17

Photographer: Long, J.D.
Subjects and Indexing Terms
.312 Irrigation: Conveyance of water (Canals, canal linings, see page losses, tunnels, flumes, pipes and inverted syphons)
Scope and Content Note
Irrigation flumes of masonry. Erected by Mission Fathers, San Antonio Mission, Jolon. Flume constructed of burned tile and lime mortar. Ends in a masonry "drop" of some 10 feet to come out on level of cornfield show in in middle distance.
Box 61:23

882a 882b **Irrigation Equipment, Imperial Valley undated**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.312 Irrigation: Conveyance of water (Canals, canal linings, see page losses, tunnels, flumes, pipes and inverted syphons)

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Box 61:23

3337 **Indicating Weir, State Fair, Sacramento, Machinery Hall 1931 September 6**

Photographer: Moses, B.D.

Subjects and Indexing Terms

.313 Irrigation: Irrigation structures (dams, diversion works, spillways, check gates, measuring devices)

Scope and Content Note

Weir calibrated to show gallons per min. on a float actuated seal. This exhibit contain a weir box with a float back of the weir that was connected to a needle of a dial. This dial was calibrated in g.p.m.

---

Box 61:24

1849a 1849b **Irrigation Dam and Flume, Canyon 10 miles above Mission San Diego 1925 June**

Photographer: Long, J.D.

Subjects and Indexing Terms

.313 Irrigation: Irrigation structures (dams, diversion works, spillways, check gates, measuring devices)

Scope and Content Note

Built by the Mission Fathers (1775-1800?). Dam some 8' high and 10"-12" thick built of rock and some burned tile with lime mortar. Flume ran from a dam some four miles below the upper one shown and was built of flat burned slabs with semi-circular tile in bottom, all cemented with lime plaster.

---

Box 61:24

882c 882d **Irrigation Equipment, Imperial Valley undated**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.313 Irrigation: Irrigation structures (dams, diversion works, spillways, check gates, measuring devices)

---

Box 61:24

1363 **Home Made Head Gate, J.B. McCormack Ranch 1923 May**

Photographer: McKibben, E.G.

Subjects and Indexing Terms

.313 Irrigation: Irrigation structures (dams, diversion works, spillways, check gates, measuring devices)

Scope and Content Note

Glanvale, Sacramento County, California.

---

Box 61:24

1260 **Irrigation 1923**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.313 Irrigation: Irrigation structures (dams, diversion works, spillways, check gates, measuring devices)

Scope and Content Note

Distributing devices.
<table>
<thead>
<tr>
<th>Box 61:24</th>
<th>6676a 6676b</th>
<th><strong>Straw Walkers from John Deere #55 Combine, Agricultural Engineering Building Court 1950 September 18</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Barbee, C.E. and Kepner, R.A.</td>
<td>Subjects and Indexing Terms</td>
</tr>
<tr>
<td></td>
<td>.313 Irrigation: Irrigation structures (dams, diversion works, spillways, check gates, measuring devices)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
<td>(a) Standard (b) Modified for harvesting red clover using #11 no-choke screen.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 61:24</th>
<th>6677a 6677b</th>
<th><strong>Clover Harvester For Direct Combining, Dunn farm, Oakdale 1950 September 12</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Kepner, R.A.</td>
<td>Subjects and Indexing Terms</td>
</tr>
<tr>
<td></td>
<td>.313 Irrigation: Irrigation structures (dams, diversion works, spillways, check gates, measuring devices)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
<td>Designed, built and operated by Jim Dunn, Oakdale. Uses beater instead of cutter bar, to remove clover heads.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 61:24</th>
<th>3096</th>
<th><strong>Irrigation Structures, Eldon Koontz, Turlock. 1930 June</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Long, J.D.</td>
<td>Subjects and Indexing Terms</td>
</tr>
<tr>
<td></td>
<td>.313 Irrigation: Irrigation structures (dams, diversion works, spillways, check gates, measuring devices)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
<td>Concrete</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 61:24</th>
<th>6670a 6670b16670b26670c16670c26670d</th>
<th><strong>Merrill Machine, Ventura County 1948 April 15</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Thym, A.M.</td>
<td>Subjects and Indexing Terms</td>
</tr>
<tr>
<td></td>
<td>.314 Irrigation by pumping</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
<td>(a, b, c) Orchard machinery, tree machine. (a) Side view (b) close up mechanism (c) Close up picking (d) Rear view - Machine was designed for peaches and was being tried for citrus fruit.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 61:24</th>
<th>3997a 3997b</th>
<th><strong>Domestic Water Supply from Irrigation Pump, Kahly Ranch, Orange Co. 1935 August</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Tavernetti, J.R.</td>
<td>Subjects and Indexing Terms</td>
</tr>
<tr>
<td></td>
<td>.314 Irrigation by pumping</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 61:24</th>
<th>4000</th>
<th><strong>Belted Motor and Deep Well Pump, Stewart Ranch, Orange Co. 1935 August</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Tavernetti, J.R.</td>
<td>Subjects and Indexing Terms</td>
</tr>
<tr>
<td></td>
<td>.314 Irrigation by pumping</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
<td>35 H. P. Motor</td>
</tr>
</tbody>
</table>
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Inventory of the Department of Biological and Agricultural Engineering Records

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Box 61:25  4001 Direct Connect Motors and Pump, Haster Ranch, Orange Co. 1935 August

Photographer: Tavernetti, J.R.

Subjects and Indexing Terms
.314 Irrigation by pumping
Scope and Content Note
40 H.P. Motor

---

Box 61:25  401a 401b Irrigation and Drainage, Sutter Basin Co., Grafton, California. 1920 June

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.314 Irrigation by pumping
Scope and Content Note
Drainage intake, Reclamation Project 1500.

---

Box 61:25  535 536 Irrigation Pumping, north and east of Davis 1921

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.314 Irrigation by pumping
Scope and Content Note
(535) Lifts slightly higher than necessary. (536) Economical lifts.

---

Box 61:25  955a 955b Irrigation Pumping undated

Photographer: Long, J.D.

Subjects and Indexing Terms
.314 Irrigation by pumping

Scope and Content Note
Storage reservoirs reduce unit costs by improving load factors.

---

Box 61:25  2700 Irrigation By Pumping 1928 July

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.314 Irrigation by pumping

Scope and Content Note
Undershot water was used as booster pump. The force of the stream in the irrigation of the water to a level about 6 ft. high.

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Box 61:25  439 Work of Students, University Farm 1921 March 7

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.314 Irrigation by pumping

Scope and Content Note
Test of irrigation pump near Ranch House.
**Pumping for Irrigation undated**

Photographer: San Joaquin Light and Power Co.
Subjects and Indexing Terms
.314 Irrigation by pumping
Scope and Content Note
An overflow in Kern Co.

**Irrigation Pumping, Conway Ranch 1921**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.314 Irrigation by pumping
Scope and Content Note
Booster pump raising water from low main ditch (into which septic tank discharges) to ditch at about 12' higher level.

**Irrigation Pumping, University Farm 1922**

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.314 Irrigation by pumping

**Irrigation Pumps, University Farm 1921**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.314 Irrigation by pumping
Scope and Content Note
Motor direct mounted and connected to multiple stage turbine pump. Will #2.

**Irrigation by Pumping undated**

Photographer:
Subjects and Indexing Terms
.314 Irrigation by pumping

**Irrigation By Pumping undated**

Photographer:
Subjects and Indexing Terms
.314 Irrigation by pumping

**Irrigation and Pumping 1922**

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.314 Irrigation by pumping
Scope and Content Note
(744) Test pump University Farm. (802) Riverside Co.

**Irrigation and Drainage, Sutter Basin Co., Grafton, California 1920 June**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.314 Irrigation by pumping
Scope and Content Note
(c) Irrigation pump outlets. (d) Irrigation pumps; Reclamation Project 1500
<table>
<thead>
<tr>
<th>Box</th>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>61:26</td>
<td>356-357-358</td>
<td><strong>Irrigation by Pumping, J.B. Anderson Ranch, west of Davis 1920 May</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Photographer: Hoffman, A.H.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subjects and Indexing Terms: .314 Irrigation by pumping</td>
</tr>
<tr>
<td>61:26</td>
<td>424a-424b-424c</td>
<td><strong>Pumps, Irrigation, University Farm 1920 December</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Photographer: Hoffman, A.H.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subjects and Indexing Terms: .314 Irrigation by pumping</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scope and Content Note: Morey 6&quot; Rotary Pump</td>
</tr>
<tr>
<td>61:26</td>
<td>2675</td>
<td><strong>Pumping For Irrigation, James Ranch undated</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Photographer: Frost, A.M.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subjects and Indexing Terms: .314 Irrigation by pumping</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scope and Content Note: One of 52 pumping plants on the James Ranch.</td>
</tr>
<tr>
<td>61:27</td>
<td>3824</td>
<td><strong>Overhead Irrigation, H.E. Fenn's Ranch, Winters 1934 June 18</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Photographer: Moses, B.D.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subjects and Indexing Terms: .315 Lawn sprinklers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scope and Content Note: Engines, pump, and tank for sprinkler system.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Engine developing approximately 100% of pull power.</td>
</tr>
<tr>
<td>61:27</td>
<td>3825-3833</td>
<td><strong>Sprinklers, H.E. Fenn Ranch, Winters 1934 June 18</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Photographer: Moses, B.D.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subjects and Indexing Terms: .315 Lawn sprinklers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scope and Content Note: Buckner Sprinklers at H.E. Fenn pasture.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>System consists of 2, 40 hp. McCormick Deering engines.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Belted with U belts to Bean vertical deep well pump.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Engines developed approximately 100% of pull power.</td>
</tr>
<tr>
<td>61:27</td>
<td>3631a-3631b-3631c</td>
<td><strong>Overhead Sprinkler System, I.J. Murphy, northwest Cotati on Hillman Avenue 1933 March 10</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Photographer: Fairbank, J.P.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subjects and Indexing Terms: .315 Lawn sprinklers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scope and Content Note: 100' length of 3/4 inch pipe (Skinner system)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>carried on overhead wires across the garden.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Trolley&quot; wires are supported on 8', 4&quot; x 4&quot; posts at either end of tract.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wires are No. 9 galvanized, from 16 to 20 ft. apart, and 150' long.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6&quot; clothes line pulleys run on the wires and carry the pipe.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pipe is connected to hose bibs by a length of garden hose.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pumps are held by guy wires to reduce the pumps.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>About 30' is irrigated at each position of the pipe.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Area irrigated is .34 acre.</td>
</tr>
</tbody>
</table>
Box 61:27  3738a 3738b  **Fuel Testing Device, Agricultural Engineering Lab 1933 September 06**
Photographer: Moses, B.D.
Subjects and Indexing Terms
  .321 Measurement of water
Scope and Content Note
Zenith metering device with special flasks. The regular flask holds 1/10 gal. This was replaced with 3 special flasks connected in series, the top in view holding 111 cc, the middle back of the panel 113 cc, and the bottom one 112 cc.

Box 61:27  2452a 2452b  **Weir, King City 1925 December**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
  .321 Measurement of water
Scope and Content Note
At Salinas Land Company. A weir placed in a reservoir to check water measurement of a Collins meter.

Box 61:27  3998  **Flow Meter, Haster Ranch, Orange Co. 1935 August**
Photographer: Tavernetti, J.R.
Subjects and Indexing Terms
  .321 Measurement of water
Scope and Content Note
Flow meter in measuring flow in pipes.

Box 61:27  2669  **Weir, San Joaquin 1925**
Photographer: San Joaquin Light and Power Co.
Subjects and Indexing Terms
  .321 Measurement of water
Scope and Content Note
Measuring water from irrigation pump. Jack Stahl in the picture.

Box 61:27  2501a 2501b  **Measuring discharge of a 26" Cent. pump, Reclamation District 548, Stockton 1926 December**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
  .321 Measurement of water
Scope and Content Note
Lube of meter, gauge tubes and calibration chast. (a) Lube of Collins flow meter placed through a 20" steel main. Property of Irrigation Division (b) Apparatus used in reading in securing cross section vel. in line.

Box 61:27  1817a 1817b 1817c  **Collins Flow Meter, California Orchard Co., King City 1925 March 26**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
  .321 Measurement of water
Scope and Content Note
Lube of meter, gauge tubes and calibration chast. (a) Lube of Collins flow meter placed through a 20" steel main. Property of Irrigation Division (b) Apparatus used in reading in securing cross section vel. in line.

Box 61:27  2449  **Current Meter, Soledad 1925 December**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
  .321 Measurement of water
Scope and Content Note
Measuring flow in a ditch while testing one of Spreckles large pumps in the Salinas Valley.
Box 61:27

708 **Pump Testing, Ontario 1921 July**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .321 Measurement of water
- Scope and Content Note

Summer school class testing a pump.

Box 61:28

3234 **Levee Making Machine, River Farms 1931 April, 06**

Photographer: Bainer, Roy

Subjects and Indexing Terms
- .322 Preparation of land
- Scope and Content Note

Home made. Built up of odds and ends found about the farm. Has a Killefer tape power lift. One man operates it with ease. 2 - 60" "Cat 3" on a flexible hitch required. Makes 24" level in one operation. Pulls dirt in from 16' width.

Box 61:28

3789a 3789b **Preparation of land for irrigation, Kings County 1934 January 3**

Photographer: Fairbank, J.P.

Subjects and Indexing Terms
- .321 Preparation of land
- Scope and Content Note

Blocker made from a disk blake.

Box 61:28

1453 **Overhead Irrigating System, Covina 1923 December 15**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .322 Preparation of land
- Scope and Content Note

Nature Ranch; Controlled at pump plant. Pipe turned to row of trees.

Box 61:28

3790a 3709b 3709c **Preparation of land for irrigation, Santa Clara County 1934 January 10**

Photographer: Fairbank, J.P.

Subjects and Indexing Terms
- .322 Preparation of land
- Scope and Content Note

Combination ridger; Combination disc and V Ridger.

Box 61:28

**Ridger and Topper, Covina; owned by Paul Gray 1926**

Photographer:

Subjects and Indexing Terms
- .322 Preparation of land
- Scope and Content Note

Ridger and Topper, 10 acres per day.
Box 61:28 3589a 3589b 3589c 3589d  Irrigation Machinery, Cerati rice farm, East Nicolaus 1932 May 20

Photographer: Bainer, Roy
Subjects and Indexing Terms
.322 Preparation of land
Scope and Content Note
Checking machine. Drags dirt in from a width of 28' leaves a finished, rounded levee 14' wide at base and 2.5' high. Pulled by 2 "60 Cats".

Box 61:28 1128  Barn Lot, Machine Shed 1923 July

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41 Farm machinery (complete line)
Scope and Content Note
A large, well built machine shed 100 feet to right of collection of machinery pays no dividends used this way. Only reason for not using being that shed was [unstable] to put tools in.

Box 61:28 1587  Vineyard Cultivator, Del Ray 1924 March 9

Photographer: Zuik
Subjects and Indexing Terms
.41 Farm machinery (complete line)
Scope and Content Note
Shows how special shovels may be substitute for regular equipment to make ditches for irrigation.

Box 61:28 1588  Vineyard Rake, Del Ray 1924 March, 9

Photographer: Zuick
Subjects and Indexing Terms
.41 Farm machinery (complete line)
Scope and Content Note
Rake for bunching prunings; A simple tool to make teeth made of 7/8" stock by approx 16" length spocked 9" apart. Plowed through 6" x 6" of a length that will just pass between vines.

Box 61:29 1473a 1473b 1473c  Farm Machinery Lab, Agricultural Engineering shops 1923

Photographer: R. R. T.
Subjects and Indexing Terms
.41 Farm machinery (complete line)

Box 61:29  Farm Machinery, Ohio University undated

Photographer:
Subjects and Indexing Terms
.41 Farm machinery (complete line)
Scope and Content Note
Secured by R.R.J.
Box 61:29
1591a 1591b Saw for Cutting Firewood, Pierce Ranch 1924 April 19
Photographer: Hoffman, A. H.
Subjects and Indexing Terms
.41 Farm machinery (complete line)
Scope and Content Note
Rugged framework on skid platform.

Box 61:29
1767 Field Results Obtained by Machine, Bangor 1924 December 15
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41 Farm machinery (complete line)
Scope and Content Note
Olive Orchard Cultivation; Olive orchard used for follow up in use of machinery project.

Box 61:29
2084 "Cantaloupe Bedder" 1926 May
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.4111 Tillage machinery
Scope and Content Note
Ordinarily equipped with 5 standards for bedding cantaloupes pulled by a "sixty." Pictures show 2 standards as used for raising asparagus beds and pulled by a "thirty."

Box 61:29
448a 448b 448c Farm Machinery and Tractor Demonstration, University Farm 1921 April
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.4111 Tillage machinery
Scope and Content Note
Cul-di-mulcher.

Box 61:30
1478 1479 1480 Early Types Deep Tillage Tools, California undated
Photographer:
Subjects and Indexing Terms
.4111 Tillage machinery
Scope and Content Note
Built by Knapp, Given to S.J.F. by C. Knapp

Box 61:30
628 629 Pulverizers undated
Photographer:
Subjects and Indexing Terms
.4111 Tillage machinery
Scope and Content Note
The Big Farmer Rotary Plow. Ft. Madison

Box 61:30
3477a 3477b Rototiller, Roy Bainer's place, Davis, California 1932 March 21
Photographer: French, O.C.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
5 h.p. Everman Engine, rotary plow attached. Rototiller was cutting grass and weeds 18" high and also digging up soil to a depth of 5" to 6".
Box 61:30 294 Plows and Plowing, Adolph Oeste Ranch 1919 December
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Attachment to break up tractor wheel.

Box 61:30 Plows 1923
Photographer: W.D. Norton Co.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Well designed plows, equipped with suitable coulters and weed hooks, will completely cover the heaviest of green manure crops.

Box 61:30 The Wisdom of Egypt undated
Photographer: R.R.J.
Subjects and Indexing Terms
.41111 Plows

Box 61:30 214 Plows, Swingle Ranch 1919 November 12
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Axle support - Oliver Bonanza - Detail. Used in adapting several gauges for one tractor. Adapting horse gangs for tractor.

Box 61:30 2405 Rotary Tiller 1919
Photographer:
Subjects and Indexing Terms
.41111 Plows

Box 61:30 206 207 Cleveland Motor Plow, University Farm, Davis, California 1919 March
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Machine 25; With harrow attachment.

Box 61:30 1467a 1467b 1467c 1467d 1467e 1467f Plow 1923
Photographer: R. R. T.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
One wheel power lift plow.

Box 61:30 655 Fagrol Tractor and Oliver Plow undated
Photographer:
Subjects and Indexing Terms
.41111 Plows
Box 61:31 2587a 2587b 2587c 2587d 2587e  **Rotary Plow, field at University Farm 1927 October 4**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
See progress report Oct. 1927 of project 400

Box 61:31 1484 1485  **Heavy Disc Plow (Knapp), Santa Clara Valley, California undated**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Furnished by Knapp Plow Co.

Box 61:31 878a 878b 878c  **Plows and Plowing, University Farm 1921 December**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Draft tests to determine effects of height of hitch on the plow.

Box 61:31 1416  **Secretary Plow undated**
Photographer: 
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Used in L.J.F. Paper, ASAE 1923

Box 61:31  **Plowing in Australia, Melbourne, Australia 1925**
Photographer: Sent by Gillispie of Sunshine Harvester Works
Subjects and Indexing Terms
.41111 Plows

Box 61:31 2858a 2858b 2858c  **Rotary Plow, Agricultural Engineering Demonstration Field, University Farm, Davis 1929 April 27**
Photographer: Winters, J.S.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Demonstration of [Puloerator?] by Aglibut and Khrinoff.

Box 61:31 1879  **Plows, Spreckles Ranch, Salinas Valley 1925 June 11**
Photographer: McKibben, E.G.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Plows used in Fowler System.
Box 61:31  
AE 215  **Plows and Plowing, Merritt Ranch 1919**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.41111 Plows  
Scope and Content Note  
Plowing towards fence, Difference of levels about 18".

Box 61:31  
AE 285 AE 286  **Plows and Plowing, Adolph Oeste Ranch 1920 January**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.41111 Plows  
Scope and Content Note  
Home gangs adapted for tractor, Detail of axle fastening.

Box 61:31  
**A Gang of Plows, Davis 1924 December 19**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.41111 Plows  
Scope and Content Note  
4 - 4 Bottom Plows. Plows hitched for a 75 Best tractor.

Box 61:32  
**Plows, Davis - Woodland road undated**  
Photographer: Norton, Warren  
Subjects and Indexing Terms  
.41111 Plows  
Scope and Content Note  
One gang cut loose and left in furrow because tractor not large enough for the load.

Box 61:32  
1392a 1392b  **Stockton Gang Plow, J.B. McCormack Ranch, Gianvale Sacramento Co 1923 Spring**  
Photographer: McKibbons, E.G.  
Subjects and Indexing Terms  
.41111 Plows

Box 61:32  
1522  **Subsoiler (Plow), Davis 1924 February**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.41111 Plows  
Scope and Content Note  
Knapp subsoiler equipped with spreaders working up an old road.

Box 61:32  
**Plowing and Cultivating with Fowler Equipment, Salinas Valley, Spreckels Sugar Co. undated**  
Photographer: Norton, William, Ag Extension  
Subjects and Indexing Terms  
.41111 Plows  
Scope and Content Note  
I shot the lost pair of Spreckles' Flowlers at the sugar factory just before World War II opened. Soon after they were junked. Spreckels was U.S. and Hawaiian "agent" for Fowler from 1884 for years. - F.F.H.
Box 61:32

2586a 2586b 2586c 2586d **Rotary Plow, Field I.D. 1927 October 3**

- Photographer: McKibben, E.G.
- Subjects and Indexing Terms .41111 Plows
- Scope and Content Note
- See Oct. 1927 report in project 400 - D.

Box 61:32

**Plowing, Ames, Iowa 1917 May**

- Photographer: Stirniman, E.J.
- Subjects and Indexing Terms .41111 Plows
- Scope and Content Note
- Case Tractor, E.B. Plow, Tests, draft of farm machinery

Box 61:32

2603a 2603b 2603c 2603d **Plows and Plowing, University Farm 1927 July**

- Photographer: Hoffman, A.H.
- Subjects and Indexing Terms .41111 Plows
- Scope and Content Note
- Test of new machine. A new plow here for test to "work out the bugs" before the machine is put into quantity production.

Box 61:32

627 **Plow, University Farm 1921**

- Photographer: Hoffman, A.H.
- Subjects and Indexing Terms .41111 Plows
- Scope and Content Note
- "The Big Farmer"

Box 61:32

3090 **Plow - Wooden Moldboard and paint, at Case Co. Factory, Rockford Illinois 1930 June**

- Photographer: Hoffman, A.H.
- Subjects and Indexing Terms .41111 Plows

Box 61:32

216 217 **Plows and Plowing, Merritt Ranch, North of Davis 1919 November 13**

- Photographer: Hoffman, A.H.
- Subjects and Indexing Terms .41111 Plows
- Scope and Content Note
- Plow Sale. (216) Portrait lens 2' - 8" 10am 5 sec. 128 stop. (217) Portrait lens 3'-0" 10am 5 sec. 128 stop.

Box 61:33

2353 **Rotary Plow, University Farm 1926 November**

- Photographer: Long, J.D.
- Subjects and Indexing Terms .41111 Plows
- Scope and Content Note
- Preparing soil to be used in pise de terre chicken house. Charles Barbee on tractor.
Box 61:33  1464a 1464b 1464c 1464d 1464e 1464f  **Plowing 1922**
Photographer: R.R.T.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Disc and Moldboard plowing in hard dry ground.

Box 61:33  1750a 1750b  **Plows, tractor, W.D. Chiles - Davis 1924 March 17**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Plows assembled for tractor. Different makes of plows hitched for a tractor.

Box 61:33  AE 295  **Plows and Plowing, Adolph Oeste Ranch 1920 January**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Attachment to break up tractor wheel track.

Box 61:33  AE298  **Plows and Plowing, Ranch N.W. of Davis 1920 January**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Plowed out.

Box 61:33  489  **Fire fighting by plowing, Oeste Ranch 1921**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Tractor used for large gang. Fire tow truck drew two bottom gang at about 10 m.p.h.

Box 61:33  610  **Tillage Machinery, University Farm 1921**
Photographer: A. S. H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Orchard types of plow and tractor.
Box 61:33 2553a 2553b 2553c  **Rotary Plow, Zamora, California. 1927 April 20**

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
6' Rotary Plow. A 6 cyl. 120 HP engine was used to drive a rotary plow cutting 6 ft. wide and 4.5" deep in clay soil. A disc plow was working okay in the same field. A 75 Caterpillar was used to pull the plow around the turns. The next model will have a tractive drive for turning.

Box 61:33 2383  **The Secretary Single Plow 1924**

Photographer:
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Catalogue. Disc plow with subsoil attachment.

Box 61:34 465  **Wearing Test of Plow Shares 1921 March**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
After first series test was completed.

Box 61:34 1777a 1777b  **Wearing Test of Plow Shares, a John Deere 3 bottom gang undated**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Plow was used to measure the wear on shares of different materials (see project)

Box 61:34 1552a 1552b  **Wearing Tests of Plow Shares undated**

Photographer:
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
(a) soft center, chilled iron, manganese. (b) manganese steel.

Box 61:34 2403a 2403b 2403c 2403d 2403e  **Plows, wearing tests of 1927 March**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41111 Plows
Scope and Content Note
Chrome plated share before wear test. Whole share first burnished, then copper plated, then nickel plated, then rear portion of concave surface burnished to the steel and chrome plated and point chrome plated over the copper and nickel slide has been made for 2403 - b.
Box 61:34  423d 423e  Wearing test of plow shares 1920 October
   Photographer:  
   Subjects and Indexing Terms  
   .41111 Plows  
   Scope and Content Note  
   Before use.

Box 61:34  423a 423b 423c  Wearing tests of plow shares 1920 October
   Photographer:  
   Subjects and Indexing Terms  
   .41111 Plows  
   Scope and Content Note  
   Before use.

Box 61:34  2393d 2393e  Wear of Tillage Implements, University Farm 1927 October
   Photographer: Hoffman, A.H.  
   Subjects and Indexing Terms  
   .41111 Plows  
   Scope and Content Note  
   Wear of special heat treated discs. The no. 2 hard, heat treated pearltic manganese discs worn 1/6 as fast as the no. 6 ordinary steel discs.

Box 61:34  Furrowing out plow, Santa Ana undated
   Photographer: Leonardo Studio  
   Subjects and Indexing Terms  
   .41111 Plows  
   Scope and Content Note  
   Furrowing out for irrigation in a citrus grove.

Box 61:34  Corn on Subsoiled Ground, on Pasadena City Farm, Los Angeles County 1922
   Photographer:  
   Subjects and Indexing Terms  
   .41111 Plows
**Subsoiled Ground 1922 January 20**

Photographer: McKibben, E.G.

Subjects and Indexing Terms .41111 Plows

Scope and Content Note

These are Malaga vines across the road from these shown above. They are from cuttings planted at the same time but are on plowed land instead of in subsoil furrows. Soil, climate, irrigation, cuttings and other factors are the same in each case with the exception of soil treatment. Note that the owner now believes in subsoiling. Arrows indicate subsoil furrows from last summer. This row shown is a picked row and somewhat stronger than those surrounding it. Top wood is an accurate indicator of the amount of root development. Photographed Jan. 20th, 1922. Soil sandy loam.

Thompson seedless vines planted by the Delano Fruit Co., in subsoil furrows. Cuttings were planted in the spring of 1920. Note the amount of wood that has been pruned from the vine. The cane in the foreground is 18 feet in length. Arrows indicate furrows made the Killefer Subsoiler in the summer of 1921. Photographed Jan., 20th, 1922. Soil sandy loam.

80 acres of Malaga cuttings planted in April 1920. Photograph taken Jan. 20th, 1922. Vine rows were broken up a depth of 25 inches with a Killefer subsoiler before planting. Cuttings planted directly over subsoil furrow. 625 boxes of packing fruit were taken from the 80 acres in the fall of 1921. Property of the Delano Fruit Co., Delano, California. Mr. Ladow, the manager, declared that subsoiling before planting the vines ahead at least a year in growth and bearing. He also subsoiled between each row in the summer as indicated by the arrows. Soil sandy loam.

**Box 61:34 1880a 1880b Harrows Fowler, Spreckels Ranch, Salinas Valley 1925 June 11**

Photographer: McKibben, E.G.

Subjects and Indexing Terms .41112 Harrow and rollers

Scope and Content Note

Large harrows used in Fowler systems.

**Box 61:35 4191 Offset disk harrow undated**

Photographer: Gapy

Subjects and Indexing Terms .41112 Harrow and rollers

Scope and Content Note

Case disk with depth gauge and shield

**Box 61:35 AE 299 Harrowing, Adolph Oeste Ranch 1920 January**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms .41112 Harrow and rollers

Scope and Content Note

Holt 75 drawing 75 ft. of spike tooth harrow.

**Box 61:35 3221a 3221b 3221c Disc Harrow, West of Agricultural Engineering Building 1930 November 15**

Photographer: Bainer, Roy

Subjects and Indexing Terms .41112 Harrow and rollers

Scope and Content Note

Controlling depth. Trying to control the depth of penetration of a Brenner's disk harrow. Not very successful.
Box 61:35

**Smoothing Harrow, Davis - Mr. Chiles 1924 December 19**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .41112 Harrow and rollers

Scope and Content Note
- 60' of harrow. (a-b) 60' smoothing harrow with 2 sections of spring tooth hitched to a harrow cart and pulled by a 75 best tractor.

Box 61:35

**Disc Harrow Tests with Stabilizer 1926**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .41112 Harrow and rollers

Scope and Content Note
- Tests by Mr. Paul of John Deere Co. A heavy duty coulter placed between the rear ganges of a disc harrow fastened rigidly to the frame to prevent the rear gang tracking the front.

Box 61:35

**Broadcast Seeder, W.D. Chiles, Davis 1924 November 17**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .41112 Harrow and rollers

Scope and Content Note
- Whitman Pacific Seed Sower. Covered 41 acres, used 33 sacks barley. (@ 115 lbs) in 3.5 hours. Distance between seeding tracks 50' traveled 2.55 miles per hour.

Box 61:35

**Seed Bed for Barley, Davis - Chiles Ranch 1924 December**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .41112 Harrow and rollers

Scope and Content Note
- (a) Seed bed prepared for barley crop (b) showing condition of field at time barley was approx. 1" high.

Box 61:35

**Disc Harrow Tests with Stabilizer 1926**

Photographer: McKibben, E.G.

Subjects and Indexing Terms
- .41112 Harrow and rollers

Scope and Content Note
- Tests by Mr. Paul of John Deere Co. [Senic] - rigid blade placed between rear gangs fastened to frame to prevent rear gangs tracking front.

Box 61:35

**Oliver Disc Harrow, Davis, California 1925 November**

Photographer: McKibben, E.G.

Subjects and Indexing Terms
- .41112 Harrow and rollers

Scope and Content Note
- Project 400 - S. Used in article in A.S.A.E. Journal Vol. 7, No. 3 March 1926.
1953  **Towner Disc Harrow, Davis, California 1925 October**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Long hinge arms, Project 400 - S.

1954  **Towner Disc Harrow, Davis, California 1925 September**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Long hinge arms, Project 400 - S.

1941  **Gangs of Towner Disc Harrow, Davis, California (stubble field) 1925 October**
Photographer: McKibben, E.G.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Line of draft of Harrow. Part of the work on Project 400 - S.

1942  **Gangs of Towner Disc Harrow, Davis, California (Stubble Field 1925 October**
Photographer: McKibben, E.G.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Line of draft. Work on project 400 - S.

1943  **Gang of Towner Disc Harrow, Davis, California (Stubble field). 1925 October**
Photographer: McKibben, E.G.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Line of draft. Work on Project 400 - S.

1944  **Line of Draft, Davis, California 1925 October**
Photographer: McKibben, E.G.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Work on Project 400 - S.
1947 **Towner Disc Harrow with Long Hinge Arms, Davis, California, Olive Orchard**  
*1925 October*  
Photographer: McKibben, E.G.  
Subjects and Indexing Terms  
.41112 Harrow and rollers  
Scope and Content Note  
Project 400 - S.

1949 **Towner Disc - very short hinge arms, Davis, California (Stubble) 1925 October**  
Photographer: McKibben, E.G.  
Subjects and Indexing Terms  
.41112 Harrow and rollers  
Scope and Content Note  
Project 400 - S.

1950 **Towner Disc Harrow, Davis, California (Stubble). 1925 October**  
Photographer: McKibben, E.G.  
Subjects and Indexing Terms  
.41112 Harrow and rollers  
Scope and Content Note  
Long Hinge Arms. Project 400 - S.

1958 **Towner Disc Harrow, Davis, California 1925 October**  
Photographer: McKibben, E.G.  
Subjects and Indexing Terms  
.41112 Harrow and rollers  
Scope and Content Note  
Project 400 - S.

1951 **Towner Disc Harrow, Davis, California 1925 October**  
Photographer: McKibben, E.G.  
Subjects and Indexing Terms  
.41112 Harrow and rollers  
Scope and Content Note  
Project 400 - S.

1959 **Towner Disc Harrow. Davis, California. Project 400 - S.**

1960 **Wearing Test of Disc Harrow, College Park, Davis 1927 March**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.41112 Harrow and rollers  
Scope and Content Note  
A. B. Catambay, 299 Course. Discs used are common John Deere and 4 specials (alloy stubs) differing in hardness.
| Box 61:37 | 1959 | Towner and Sullivan Disc Harrow, Davis, California 1925 November |
| Box 61:37 |  | Photographer: McKibben, E.G. |
| Box 61:37 |  | Subjects and Indexing Terms |
| Box 61:37 |  | .41112 Harrow and rollers |
| Box 61:37 |  | Scope and Content Note |
| Box 61:37 |  | Project 400 - S. |

| Box 61:37 | 1952 | Towner Disc Harrow, Davis, California 1925 October |
| Box 61:37 |  | Photographer: McKibben, E.G. |
| Box 61:37 |  | Subjects and Indexing Terms |
| Box 61:37 |  | .41112 Harrow and rollers |
| Box 61:37 |  | Scope and Content Note |
| Box 61:37 |  | Long Hinge Arms. Project 400 - S. |

| Box 61:37 | 1961 | Oliver Disc Harrow, Davis, California 1925 November |
| Box 61:37 |  | Photographer: McKibben, E.G. |
| Box 61:37 |  | Subjects and Indexing Terms |
| Box 61:37 |  | .41112 Harrow and rollers |
| Box 61:37 |  | Scope and Content Note |
| Box 61:37 |  | Project 400 - S. Used in article in ASAE Journal 1 of 7, No. 3, March 1926. |

| Box 61:37 | 1948 | Towner Disc Harrow With Long Hinge Arms, Davis, California, Olive Orchard 1925 October |
| Box 61:37 |  | Photographer: McKibben, E.G. |
| Box 61:37 |  | Subjects and Indexing Terms |
| Box 61:37 |  | .41112 Harrow and rollers |
| Box 61:37 |  | Scope and Content Note |
| Box 61:37 |  | Project 400 - S. |

| Box 61:37 | 639 | Disk Harrows undated |
| Box 61:37 |  | Photographer: |
| Box 61:37 |  | Subjects and Indexing Terms |
| Box 61:37 |  | .41112 Harrow and rollers |
| Box 61:37 |  | Scope and Content Note |
| Box 61:37 |  | Draft Tests, method of testing |

| Box 61:37 | 858a 858b 860a | Disk Harrows undated |
| Box 61:37 |  | Photographer: |
| Box 61:37 |  | Subjects and Indexing Terms |
| Box 61:37 |  | .41112 Harrow and rollers |
| Box 61:37 |  | Scope and Content Note |
| Box 61:37 |  | Strength of Blades; compression tests; method of failing. |

| Box 61:37 | 1281 | Disc Harrow Blades undated |
| Box 61:37 |  | Photographer: Hoffman, A.H. |
| Box 61:37 |  | Subjects and Indexing Terms |
| Box 61:37 |  | .41112 Harrow and rollers |

| Box 61:38 | 620 | Compression Tests - Disk Harrow undated |
| Box 61:38 |  | Photographer: Hoffman, A.H. |
| Box 61:38 |  | Subjects and Indexing Terms |
| Box 61:38 |  | .41112 Harrow and rollers |
Box 61:38

637 **Disk Harrow Draft Test undated**
   Photographer:
   Subjects and Indexing Terms
   .41112 Harrow and rollers
   Scope and Content Note
   Changing blades

Box 61:38

**Disk Harrows 1925 June 24**
   Photographer: Murphy, M.J., Best Tractor Co.
   Subjects and Indexing Terms
   .41112 Harrow and rollers
   Scope and Content Note

Box 61:38

823 853 826 **Disk Harrows undated**
   Photographer:
   Subjects and Indexing Terms
   .41112 Harrow and rollers
   Scope and Content Note
   Draft Tests

Box 61:38

838 **Breaking Test of Disk Harrow Blades undated**
   Photographer:
   Subjects and Indexing Terms
   .41112 Harrow and rollers
   Scope and Content Note
   Testing machine in C. E. Lab at U.C.

Box 61:38

859a **Disk Harrows undated**
   Photographer:
   Subjects and Indexing Terms
   .41112 Harrow and rollers
   Scope and Content Note
   Strength of blades; compression tests; method of failure; full blades.

Box 61:38

638 880b **Revolving Smoothing Harrow 1922**
   Photographer: R. R. J.
   Subjects and Indexing Terms
   .41112 Harrow and rollers
   Scope and Content Note
   Used mostly in vineyards and orchards.
AE 212 **Harrow 1919 October**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Harrow sections designed for use with (Pierce) harrow cart.

Box 61:38

1034 **Harrowing Machinery undated**

Photographer:
Subjects and Indexing Terms
.41112 Harrow and rollers

Box 61:39

1945 **Gang of Towner Disc Harrow, Davis, California 1925 October**

Photographer: McKibben, E.G.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Determining line of draft. Project 400 - S used in article in ASAE Journal Vol. 7, No. 3, March 1926

Box 61:39

1957 **Towner Disc Harrow, Davis, California. 1925 October**

Photographer: McKibben, E.G.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Project 400 - S used in article in ASAE Journal Vol. 7, No. 3, March 1926

Box 61:39

1156 **Device To Lift Section of Harrow From Tractor undated**

Photographer:
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Orange, California.

Box 61:39

1624 **Rollers, 2 miles north of Williams on Hous Bros. place 1924 August 20**

Photographer: Moses, B.D.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
3 Rollers concrete 6 ton - 1 ton per foot. They are carrying on experiments with [Dunshe] - Rolling the seed bed after sowing rice to prevent floating away and to [ ] getting into the field sooner after water is drawn off.

Box 61:39

2581a 2581b **Disk Harrow Wearing Tests 1927 August**

Photographer: Weston, E.W.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Test runs by A.B. Cantambay. (a) Arrangement of disks (b) Results of test
Box 61:39  AE 291  **Harrowing, Haussler Ranch 1920 January**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
As the field should look after seed is harrowed in.

Box 61:39  468 **Harrow, University Farm 1921 April**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Taken to illustrate the need of low levers, etc. on machines used in orchard work.

Box 61:39  **Soil Packet, Italy undated**

Photographer:
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
"Tromellini".

Box 61:39  **Spading Harrow, Italy undated**

Photographer:
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
"Vasino"

Box 61:40  1251 1252 **Disk Harrow - For Carriage undated**

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
(a) Samson 24 blade field tandem. Loading of all disks was made uniform per foot of width. (b) Killifer 24 blade disk field tandem.

Box 61:40  **Towner Disc Harrow, Davis, California 1925 April**

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Project 400 - S.
Box 61:40  
559  **Tillage Machinery - Clod Crusher, near Dixon. 1921**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  .41112 Harrow and rollers  
Scope and Content Note  
Illustrating waste of material due to lack of knowledge of principles of mechanics and strength of materials.

Box 61:40  
**Smoothing Harrow With Tree [], Rogers Bros. Ranch, Watsonville 1921 April**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  .41112 Harrow and rollers  
Scope and Content Note  
Ford wheels on harrow. [] 2" over front and side. 40 lb pressure carried.

Box 61:40  
**Automobile Disc Harrow, Reversible Type, Stockton. 1921 April**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  .41112 Harrow and rollers  
Scope and Content Note  
Wizard tractor.

Box 61:40  
**Harrow Cart, 3 miles west of Nicolaus, California 1924 October 22**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  .41112 Harrow and rollers  
Scope and Content Note  
(a) quarter view (b) side view (c) close-up view. 60 feet of spike tooth harrows carried by bar attached to four old mower wheels.

Box 61:40  
**Homemade Plow and Smoothing Harrow, Wawawai, Washington 1918**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  .41112 Harrow and rollers  
Scope and Content Note  
In Snake River Canyon on a small side hill farm. He uses a cow and horse for [] power.

Box 61:40  
**Rice Planters and Cultivators, Italy 1925**  
Photographer:  
Subjects and Indexing Terms  .41112 Harrow and rollers  
Scope and Content Note  
18" Disks. (a) Cutaway disks broken by very hard soil of run out alfalfa field. Changing from cutaway to full blades. (b) John Deere with 18" cutaway blades. Measuring the angle.

Box 61:40  
**Draft of Disk Harrow, University Farm 1921 May**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  .41112 Harrow and rollers  
Scope and Content Note  
18" Disks. (a) Cutaway disks broken by very hard soil of run out alfalfa field. Changing from cutaway to full blades. (b) John Deere with 18" cutaway blades. Measuring the angle.
Box 61:40  786 957  Tillage Machinery. undated
       Photographer:
       Subjects and Indexing Terms
       .41112 Harrow and rollers
       Scope and Content Note
       Rotary Harrow

Box 61:41  Disc Harrow - Less Machine Shed, Pullman, Washington 1918 December
       Photographer: Stirniman, E.J.
       Subjects and Indexing Terms
       .41112 Harrow and rollers

Box 61:41  1940  Gauge of Towner Disc Harrow, Davis, California. (Stubble Field) 1925 October
       Photographer: McKibben, E.G.
       Subjects and Indexing Terms
       .41112 Harrow and rollers
       Scope and Content Note
       Work on Project 400 - S. Showing relation of line of draft of gauge and harrow.

Box 61:41  834a 834b  Disk Harrows, University Farm on Quad undated
       Photographer:
       Subjects and Indexing Terms
       .41112 Harrow and rollers
       Scope and Content Note
       Draft Tests

Box 61:41  650 652  Harrow Machinery undated
       Photographer:
       Subjects and Indexing Terms
       .41112 Harrow and rollers

Box 61:41  561  Tillage Machinery undated
       Photographer:
       Subjects and Indexing Terms
       .41112 Harrow and rollers
       Scope and Content Note
       Planker

Box 61:41  1946  Towner Disc Harrow with Long Hinge Arms, Davis, California (Olive Orchard)
           1925 October
       Photographer: McKibben, E.G.
       Subjects and Indexing Terms
       .41112 Harrow and rollers
       Scope and Content Note
       Project 400 - S. Used in A.S.A.E. Journal Vol. 7 No. 3, March 1926
Box 61:41

560a 560b 560c **Tillage Machinery, Yolo County 1921**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Homemade land rollers. 560a and 560b on Stanley Roger's farm. 560a on farm next east of S. Rogers.

Box 61:41

3222a 3222b 3222c 3222d **Disc Harrow, West of Agricultural Engineering Building 1930 November 15**

Photographer: Bainer, Roy
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
Controlling depth. Trying to control the depth of penetration of a Brennan disk harrow. Not very successful.

Box 61:41

**Disc Harrow, Oxnard 1927**

Photographer: Greenfield
Subjects and Indexing Terms
.41112 Harrow and rollers
Scope and Content Note
A side cut disc harrow in operation.

Box 61:42

1450a 1450b **Cultivator attached to Fordson, Covina 1923 December 15**

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41113 Cultivators
Scope and Content Note
Cultivator is controlled from tractor. Has no wheels, depth control on tractor angle of shovels governed by turn buckle, under center of tractor spring shovel because beams prevent bending when tractor turn with cultivator in ground.

Box 61:42

3458a 3458b 3458c 3458d **Cultivators, Agricultural Engineering Building, Davis, California 1932 January 28**

Photographer: Winters, J.S.
Subjects and Indexing Terms
.41113 Cultivators
Scope and Content Note
These pictures were taken in order that slides could be made for teaching in Farm Machinery.

Box 61:42

**Cultivator, Santa Ana undated**

Photographer: Leonard's Studio
Subjects and Indexing Terms
.41113 Cultivators
Scope and Content Note
Cultivator attached to tractor.
Box 61:42  **Cultivating row crops 1928**

Photographer: I.H.C.

Subjects and Indexing Terms
  .41113 Cultivators

Scope and Content Note
Six row, Farmall-operated cultivating outfit. Unusual efficiencies are obtained on the El Tejon Hacienda by the plentiful use of tractor power. There are eleven general purpose Farmall tractors and one McCormick-Deering 15-30 tractor, which perform all sorts of field and belt jobs with great savings in time and labor. In the illustration, the Farmall is shown in a field of cotton, whose rows are 1 1/2 miles long. In the front is the 2-row Farmall cultivator and at the rear are two 2-row cultivators.

Box 61:42  **Tillage Machinery undated**

Photographer: Winters, J.S.

Subjects and Indexing Terms
  .41113 Cultivators

Scope and Content Note
John Deere Beet and Bean Cultivator worked over. Mervine's experimental sugar beet mechanical blocker. Built upon a John Deere cultivator, taking six rows.

Box 61:42  **Blocking Beets, Al Greer's ranch 1931 March 30**

Photographer: Winters, J.S.

Subjects and Indexing Terms
  .41113 Cultivators

Scope and Content Note
John Deere Beet and Bean Cultivator worked over. Mervine's experimental sugar beet mechanical blocker. Built upon a John Deere cultivator, taking six rows.

Box 61:42  **Vineyard Cultivation, W.G. Micke, Lodi 1945 March 31**

Photographer: Fairbank, J.P.

Subjects and Indexing Terms
  .41113 Cultivators

Scope and Content Note
Double "Molley" plows on Ford Ferguson tractor. "Molley" plows made by Paul (Molley) Mayer, Lodi. Double units mounted on front end of Ford-Ferguson Tractor. Lifted by hydraulic lift on tractor. Either set of plows can be pulled inward by foot pedals.

Box 61:42  **Rotary Tillers undated**

Photographer: Fairbank, J.P.

Subjects and Indexing Terms
  .41113 Cultivators

Scope and Content Note
The action of Rototiller in Cultivating. See Moses R.C.C. talk 1935 - slide in R.R.F. file. Action of tines of a rotary tiller (Fig. 9, Ag. 1188, Mathews) The tines shaped like half hooks are mounted on a horizontal shaft. The engine is geared to both the hand wheels and the tine shaft. The tractor's wheels act more as stabilizers than pulling members, however, by holding the tractor down to geared speed which the tines not only dig but tend to carry the machine forward as well. It is possible to remove the tiller for attaching other draft tools.
**Vineyard Cultivation 1945 March 31**

Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.41113 Cultivators
Scope and Content Note

"Molley" Plows, made by Paul ("Molley") Mayer, Lodi. D. J. Weigum Lodi. "Molley" plow is a disk so mounted on a swing frame attached to a disc harrow or plow that the disk plows in the vine rows, but is pushed away from the vine when the grame and shield rub the vine and grape stake.

**Weeder and Furrowing out attachments undated**

Photographer: Subjects and Indexing Terms
.41113 Cultivators
Scope and Content Note

Mfg's by R. W. Morris - Carpenteria, CA

**Killefer Orchard Cultivator, University Farm 1921 April**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.41113 Cultivators
Scope and Content Note

Mfg's by R. W. Morris - Carpenteria, CA

**Cultivators, Agricultural Building, Davis, California 1932 January 28**

Photographer: Winters, J.S.
Subjects and Indexing Terms
.41113 Cultivators
Scope and Content Note

These pictures were taken in order that slides could be made for teaching in farm machinery.

**Subsoiler (Plow), Santa Ana, Calif. undated**

Photographer: Leonards Studio
Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note

Mfg. H.E. Towner. Tractor used as carriage for subsoiler.

**Best 60 drawing subsoiler undated**

Photographer: Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note

Best Tractor Co. Book G.1 #1276. Print furnished by Moyer J. Murphy, June 24, 1925.

**Subsoiler undated**

Photographer: Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note

Knapp Subsoil. Note male as gopher used for making drains.
Box 61:43

1455a 1455b **Subsoiler, Covina 1923 December 15**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note
Homemade. Effective but spikes would break off.

Box 61:43

**Power Boring Machine 1921 December 24**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note
Engine removed to other equipment. A Buick auto engine used 30 - 50 3 ft. holes per hr, for feed and power lift.

Box 61:43

**Tillage Machinery undated**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note
Subsoiler

Box 61:43

5647 **Clod Conditions Following Sugar Beet Harvesting, Yolo County, Trainor Tract near College Park, Davis, California 1942 November**
Photographer: Fairbank, J.P. and Walker, H.B.
Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note
Land subsoiled by beet lifter. Picture taken following sugar beet harvest.

Box 61:44

5644 **Clod Conditions Following Harvest of Sugar Beets, Yolo County California, Field near High School, Davis, Calif. 1942 November**
Photographer: Fairbanks, J. P. and Walker, H.B.
Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note
Photo to show problem of soil lumps in Sugar Beet harvesting.

Box 61:44

5645 **Clod Conditions, Past Harvest of Sugar Beets, Field near Davis, California, Trainor Tract 1942 November**
Photographer: Fairbanks, J. P. and Walker, H.B.
Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note
Clods in field following harvesting of sugar beet crop.
<table>
<thead>
<tr>
<th>Box 61:44</th>
<th>5646</th>
<th>Clod Conditions in Sugar Beet Field, Davis, California, Trainor Tract 1942 November</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photographer: Fairbank, J. P. and Walker, H.B.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjects and Indexing Terms</td>
<td></td>
<td></td>
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<tr>
<td>.41114 Subsoilers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scope and Content Note</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photo showing clods in recently harvested beet field, November 1942</td>
<td></td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Box 61:44</th>
<th>1535</th>
<th>Subsoiler in Orchard undated</th>
</tr>
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<tbody>
<tr>
<td>Photographer: Cletrac and Killefer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjects and Indexing Terms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.41114 Subsoilers</td>
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</tr>
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<table>
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<tr>
<th>Box 61:44</th>
<th>2495</th>
<th>Subsoiler, Soledad 1925 April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photographer: Stirniman, E.J.</td>
<td></td>
<td></td>
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<tr>
<td>Subjects and Indexing Terms</td>
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<td>.41114 Subsoilers</td>
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<tr>
<td>Scope and Content Note</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Standard subsoiler. Hauson Bros. 3 standard Killefer subsoiler and 75 Holt.</td>
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<table>
<thead>
<tr>
<th>Box 61:44</th>
<th>1115a 1115b</th>
<th>Subsoil Plow, Knecht Ranch west of Lincoln, Placer Co. 1923 September</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photographer: Hoffman, A.H.</td>
<td></td>
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<tr>
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<td>.41114 Subsoilers</td>
<td></td>
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<tr>
<td>Scope and Content Note</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knapp drawn by Gray Tractor. (b) shows place where tractor dug in but dug out again without stopping and without raising plow.</td>
<td></td>
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<table>
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<tr>
<th>Box 61:44</th>
<th>156</th>
<th>Subsoiler undated</th>
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<tr>
<td>Photographer: J.B.D.</td>
<td></td>
<td></td>
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<tr>
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<td>Scope and Content Note</td>
<td></td>
<td></td>
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<tr>
<td>Early type.</td>
<td></td>
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<tr>
<th>Box 61:44</th>
<th>155 156</th>
<th>Tillage Machinery undated</th>
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<td>Scope and Content Note</td>
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<tr>
<td>subsoiler</td>
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</table>
Box 61:44
1878 Subsoiler, Spreckles Ranch, Salinas, California 1925 June 11
Photographer: McKibben, E.G.
Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note
Tillage Supplements used in Fowler system.

Box 61:45
697a 697b Tractors and Subsoiler undated
Photographer:
Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note
Subsoiling vineyard near Sanger.

Box 61:45
Subsoiler undated
Photographer:
Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note
A small subsoiler. Construction and use of the subsoiler.

Box 61:45
2380a 2380b 2380c Subsoiler undated
Photographer:
Subjects and Indexing Terms
.41114 Subsoilers
Scope and Content Note
A small subsoiler. Construction and use of the subsoiler.

Box 61:45
3480a 3480b Drag Harrow For Aphis Control On Alfalfa, Lancaster, Calif. 1932 March 17
Photographer: French, O.C.
Subjects and Indexing Terms
.41115 Drags, floats and smoothers
Scope and Content Note
Used to drag over alfalfa to kill aphis. First trials indicated about 50% kill.

Box 61:45
4188 Ridger, Dost Ridger undated
Photographer:
Subjects and Indexing Terms
.41115 Drags, floats and smoothers
Scope and Content Note
10-Ft. Draft 800 to 1300 with 190 lbs wt. Soil had been double disked this spring. Some morning glory.

Box 61:46
4157a 4157b Calkins Rotary Weeder, Paso Robles 1938 May 13
Photographer: Fairbanks, J.P.
Subjects and Indexing Terms
.41115 Drags, floats and smoothers
Scope and Content Note
10-Ft. Draft 800 to 1300 with 190 lbs wt. Soil had been double disked this spring. Some morning glory.
Box 61:46 4158a 4158b  Calkins Rotary Weeder, Paso Robles 1938 May 13
Photographer: Fairbanks, J.P.
Subjects and Indexing Terms
.41115 Drags, floats and smoothers
Scope and Content Note
10-Ft. Draft 800 to 1300 with 190 lbs wt. Soil had been double disked this spring. Some morning glory.

Box 61:46 3788a 3788b 3788c  Bullock Rotary Tillage Tool, near Concord, Calif. 1933 December 8
Photographer: French, O.C.
Subjects and Indexing Terms
.41115 Drags, floats and smoothers
Scope and Content Note
See project under Tillage project - J.P.F.; 4 ft. width tool. Weighing about 250 ft. width pulled by Buick auto at 4.5 M.P.H.

Box 61:46 3681a 3681b 3681c  Garlic Planter (Experimental), Davis, California - Agricultural Engineering Bldg 1933 June 1
Photographer: French, O.C.
Subjects and Indexing Terms
.4112 Seeding machinery
Scope and Content Note
In developing a planter for garlic, this wide variation in size had to be contended with.

Box 61:46 3799  Garlic Planter (Experimental), Davis, California 1934 May 7
Photographer: French, O.C.
Subjects and Indexing Terms
.4112 Seeding machinery
Scope and Content Note
See proj. 947

Box 61:46  Seeders undated
Photographer:
Subjects and Indexing Terms
.4121 Grain seeders and drills
Scope and Content Note
Left here by S. L. Allen Co. of Philadelphia, PA

Box 61:46 2497  Truck Crop Seeder, Santa Ana, California 1926 March
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.4121 Grain seeders and drills
Scope and Content Note
2 [Plauct] Jr. 2 - Row seeders with leveling float used in truck crop work.
Box 61:46  4192a 4192b **Bean Planter undated**  
Photographer: Copy  
Subjects and Indexing Terms  .4121 Grain seeders and drills  
Scope and Content Note  
Pick up type (Ventura)

Box 61:46  2379 **Broad Cash Seeder, Hamilton City, Kaiser's Ranch 1925 July**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  .4121 Grain seeders and drills  
Scope and Content Note  
Bulk grain type. Grain is housed in bulk and shoveled into the feed box of the seeder.

Box 61:46  1753a 1753b 1753c 1753d **Grain Drill, Agricultural Engineering Lab field. 1924 November**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  .4121 Grain seeders and drills  
Scope and Content Note  
Class AE 104. Class work in AE 104 following grain drill study in lab.

Box 61:46  2564a 2564b 2564c **Stubble Pulverizer, Salinas 1927 April 22**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  .4113 Harvesting and haying machinery  
Scope and Content Note  
A hammer mill type rotor. A stubble pulverizer used in an attempt to control corn borer in the East. This machine was tested on an artichoke field for removing tops.

Box 61:46  6693a 6693b **Direct combining of ladino clover seed, in 320 acre field of Sutter Basin Livestock and Land Company, 4 miles NW of Robbins 1951 September 28**  
Photographer: Kepner, R.A.  
Subjects and Indexing Terms  .41131 Grain binders, headers, reapers, combined harvesters  
Scope and Content Note  
John Deere #55 Combine. Note extra beater, ground driven, added just above cutter bar.

Box 61:46  4116a 4116b 4116c 4116d **Harvesting Purple Vetch Seed, Black's Point, Marin County 1937 July**  
Photographer: Winters, J.S.  
Subjects and Indexing Terms  .41131 Grain binders, headers, reapers, combined harvesters  
Scope and Content Note  
Allis - Chalmers all-crop with Rotary Divider and Pick-Up Reels. (a) Shows MacRotary divider driven by U. Belt from upper elevator roller, speed about 500 rpm. Manufactured by John W. McClure and Sons, Assumption, Illinois. (b) Shows inside view of rotary divider. (c - missing) Front and side view of divider also shows portion of pick up reel. Manufactured by Universal Harvester Co. Oakland, California (d - missing) Shows results of rotary divider. Note clean separation of cut from uncut vetch.
2672c Hay and Grain Loader, Gardnerville, Nevada undated
Photographer: Lampe, W.H.
Subjects and Indexing Terms .41134 Hay rakes, loaders, stackers, etc.
Scope and Content Note Lampe Bros. Ranch; Does work of 4 hand pitchers. Stack 45 ton loads per day with slings.

2415 Chart of Comparative Efficiencies 1927 January
Photographer: Weston, E.W. (Drawn by T.A. Wood)
Subjects and Indexing Terms .41236 Fruit drying processing equipment
Scope and Content Note Gas-oil and electrically heated plants. Drawing used for slide.

2413 Mahoney Walnut Dehydrator 1927 January
Photographer: Drawing by T.A. Wood
Subjects and Indexing Terms .41236 Fruit drying processing equipment
Scope and Content Note Drawing used for slide.

2424 Ward Walnut Dehydrator 1927 January
Photographer: Drawing by T.A. Wood
Subjects and Indexing Terms .41236 Fruit drying processing equipment
Scope and Content Note Recirculating Reversible bin type. Drawing used for slide.

2425 Bishop Walnut Dehydrator 1927 January
Photographer: Drawing by T.A. Wood
Subjects and Indexing Terms .41236 Fruit drying processing equipment
Scope and Content Note Non-recirculating Rotary drum type. Drawing used for slide.

3143_13143_23143_33143_43143_53143_63143_73143_8 Walnut Dehydrators, P.R. Feddersohn, Covina, Calif. 1930 September
Photographer: Moses, B.D.
Subjects and Indexing Terms .41236 Fruit drying processing equipment
Scope and Content Note Feddersohn Walnut Dehydrator 4 bin ward oil heated. (1) Mr. Feddersohn by unloading platform at end of dehydrator sacked walnuts ready to be dumped into elevator hopper. (2) Direct from wagon to hopper. (3) Outside of dehydrator showing-huller, and washer driven from a 5 Hp. motor in the building through a line shaft. (4) Feddersohn's home pleasant view. Farm dehydrator in background. (5) View from the motor end showing air-duct manifold on the side, 4 bins and 4 chutes from bins. (6) Same as 5 only from the other end looking toward the blower. (7) Honey well motor switch and mercoid thermostat chain from motor switch controls fuel valve. Thermostat element located in the discharge from blower in foreground. (8) Switch and meter board. Elevator belt in right upper corner. (9) Same as 6.
| Box 65:1 | 3141 | **Walnut Dehydraters, E.G. Hotchkiss ranch, Puente, California 1930 October**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.41236 Fruit drying processing equipment  
Scope and Content Note  
Unloading Walnuts into elevator to dehydrator. Hotchkiss has a 3 Bin Ward-Gas heated walnut dehydrator for details see Walnut Dehydrator Study Project by P.F. Nichols and B.D. Moses. |

| Box 65:1 | 3142 | **Walnut Dehydrator, Charles Heinricks Walnut Grove, Santa Ana Calif. 1930 October**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.41236 Fruit drying processing equipment  
Scope and Content Note  
Bayer Electrically Heated. For detailed description see Project on Walnut Dehydraters study by P.F. Nichols and B.D. Moses. |

| Box 65:1 | 1917 | **Walnut Dehydrator, Hurst and Hurst - Covina (Puente) 1925 October 10**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.41236 Fruit drying processing equipment  
Scope and Content Note  
Electric ward dehydrator 3 ton Cap. Transformer pole with pole switch pumping plant and work shop in foreground. Comb of the roof of dehydrator in back - note trays for sale. |

| Box 65:1 | 2203 | **Walnut Dehydration, Anderson Barngrover Orchard, Linden 1926 September**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.41236 Fruit drying processing equipment  
Scope and Content Note  
Moving trays of dry nuts to elevator. See Program Report C.R.E.A. # VI. |

| Box 65:2 | 2202 | **Walnut Dehydrator, Anderson Barngrover Orchard, Linden 1926 October 26**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.41236 Fruit drying processing equipment  
Scope and Content Note  
Unloading Dehydrator. Note instruments on North end of house used in tests. |

| Box 65:2 | 2204 | **Walnut Dehydrator, Anderson Barngrover Orchard, Linden 1926 October**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.41236 Fruit drying processing equipment  
Scope and Content Note  
Car transfer truck. Walnut dehydrator. |
Box 65:2  2359  **Hurst Bros. Dehydrator, Covina 1926 November**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.41236 Fruit drying processing equipment  
Scope and Content Note  
Corrugated iron bldg. houses the Ward Elec. dehydrator. For results of tests refer to project 400N, progress report #6. To the left in the picture is the farm shop, which contains a very complete set of tools, also houses a 50 h.p. electric motor belt connected to their irrigation pump.

Box 65:2  2207  **Walnut Dehydrator, Anderson Barngrover Orchard, Linden 1926 September 29**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.41236 Fruit drying processing equipment  
Scope and Content Note  
Transporting the green nuts from the washing machine to dehydrator. See C.R.E.A. Prog. Report - #VI

Box 65:2  1909  **Packing Walnuts, Hurst and Hurst Ranch, Covina, California 1925 October 10**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.41236 Fruit drying processing equipment  
Scope and Content Note  

Box 65:2  1918a  1918b  **Dumping Walnut Trays, Anderson Barngrover Orchard, Linden 1925 October 21**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.41236 Fruit drying processing equipment  
Scope and Content Note  
Unloading walnut dehydrator. The walnuts are dried on trays 22 on each truck in 14 compartments, then rolled to the packing on rails. These men are dumping the nuts onto a shaker from which they pass to an elevator and are taken to the bins in the top of the building - dehydrator in the background.

Box 65:2  3144  **Recording Thermometers, E.G. Hotchkiss, Puente, California 1930 September**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.41236 Fruit drying processing equipment  
Scope and Content Note  
Thermometer used on walnut dehydrator. Tagliabue thermometers used in obtaining temperature records were calibrated by placing the bulbs in a bucket of water.
Box 65:2

5642-15642-2 Grape Dehydrator, Parsons Dehydrator Plant, Hanford, Calif. 1943 October 14

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment
Scope and Content Note

Dehydrator built by Montgomery for Parson's. (1) End View looking down at burners the two platforms serve as roofs over car tracks fans, motors and gallows frame for doors in the background. (2) View along transfer track at the outlet end of tunnels.

Box 65:3

5650 Rice Dehydrators, Charles Dennis, Maxwell 1944 January 11

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment
Scope and Content Note

Sack Type Dehydrators. For Details see Moses, B.D. Trip Report #19. 456 holes - Dried 26000 sacks in 1943.

Box 65:3

5683-C Prune Dehydrator, Fritz Franks-Trancas Avenue, Napa 1945 April

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment
Scope and Content Note


Box 65:3

5683-A Prune Dehydrators, Lilburn Clarke in Wooden Valley, California 1945 April

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment
Scope and Content Note

6 ton Unit Farm Building Plan C-214.

Box 65:3

5683-b Prune Dehydrator, Chisholm’s Farm - Windsor, California 1945 April

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment
Scope and Content Note

Double 4 ton Unit - Farm Bldg. Plans C-214. They built the first unit in 1943 but because of the difficulty they had getting material and because they used old field trays with insufficient space for air to flow, got rather poor performance. In 1944 they made these corrections and added a duplicate unit along side. See trip report #28, 1945.

Box 65:3

5659 Dehydrator Tray Stacker, J. Leonard Box 167 Homestead Rd. Cupertino, Calif. 1944 June 21

Photographer: Perry, R.L.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment
5663 Onion slides with thermocouples inserted, after drying 1944 October 16
   Photographer: Weston, E.W.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment
Scope and Content Note
Slices from tests at Basic Vegetable Products, Vacaville, October 10, 1944. Thermocouple junction exposed in only one slide. T.C. of #36 wire.

Box 65:4 4031a 4031b Walnut Dehydration equipment, Walter Snyder Place, Grand Terra 1936 September
   Photographer: Fairbank, J.P.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment
Scope and Content Note
(a) shows storage bin (behind loader) for receiving the nuts drawn from the ethylene bins - dropped into hopper and elevated to huller. (b) Huller - hull elevator - and assorting table.

Box 65:4 4027 Walnut Dehydrator 1936 September
   Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment
Scope and Content Note
Moisture testing equipment. Whittier State School Mr. Specer testing for moisture of nuts using Xylene Process. Note: tripping levers in end of stack.

Box 65:4 3847 Walnut Gassing Chamber, Whittier State School, Whittier 1934 August
   Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment
Scope and Content Note
Small Cabin converted to gas chamber. Lining Room insulated and the roof sprinkled. - See project 400-D.

Box 65:4 3842 Walnut Gassing Chamber, Perry Mulholland Ranch, Chatsworth 1934 September
   Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment
Scope and Content Note
Well insulated bin type installation. This building is built of galvanized corrugated iron. Outside insulated with redwood fibre - contains 28 bins of 2-ton green nut capacity. See Project 400-D.
Box 65:4 4033a 4033b 4033c **Furnaces 1936 September**

Photographer: Moses, B.D. and Fairbank, J.P.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment

Scope and Content Note
Furnaces and heaters for Walnut Dehydrators. (a) Natural gas heater for a 4x6 Brown Multistage built by Nemec of Whittier. (b) Home made furnace for 2-4x6 stacks. Brown Multistage for burning oil. (c) Charbonneau design oil furnace for 2 stack 4x6 dehydrator built by Keesee Tank and Pump Co., Anaheim. For additional information see R.D.M. file on walnut dehydrators and Proj. 400-D.

Box 65:4 4030a 4030b 4030c 4030d **Sacking Out Spouts 1936 September**

Photographer: Moses, B.D. and Fairbank, J.P.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment

Scope and Content Note
(a) Sacking out spout detachable to serve different bins used on mahoney type bin at Saticoy Citrus Association Plant. Built by Eastman. (b) Spout and gate on R.H. pears on dehydrator, Camarillo. Built by Bush, Santa Susana. (c) and (d) Skoveman built spout on Morris dehydrator - Elsinor

Box 65:4 1919a 1919b 1919c 1919d **Walnut Dehydrator 1925 October 9**

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment

Scope and Content Note
Ward one bin - one ton oil heated. 4 views one shows burner in first heating drum in center - intake and exhaust on right blower on left thermostat in front of picture. Side view shows Sturtevant blower with belt drive. 1 1/2 Century motor single phase.

Box 65:4 3939 **Ethylene Gas Control Board 1935 September 20**

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment

Scope and Content Note
Board used for charging gassing chamber with E. gas for walnuts. Lower right gas tube for connecting up to Ethylene gas tank, upper right high pressure gauge next on left. Reducing valve and gage cut press to 10# plus. Next on left cut press to 10# center on board low press reducing valve for use when gas is trickled. Trickle charging done by opening valve above bottle (not shown) so as to bubble gas through water and out through delivery tube. Shot charge doen by depressing valves above bottle in tube that bypasses the low pressure regulator equipment made by Stuart Oxygen Co., Los Angeles.

Box 65:4 5687 **Rice Dehydrator, Fritz Erdman's Rice Warehouse between Knights Landing & Grimes. 1944 August**

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment

Scope and Content Note
Randolph TY Column Drier Under Construction. Plenum Chamber and riser to fan shown as concrete block in fore ground - Face of the dehydrator before sheet metal work is on in back ground.
Box 65:4

5643 Tray Loading for Apple Drying, Pilot Prune Dehydrator - University Farm, Davis.
1943 November 13

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment

Scope and Content Note
Newton Pippin Apples from Mt. Madonna Appl Association. Left Tray loaded 2 lbs. per sq. foot some piling when fresh.

Box 65:5

5642-4 Grape Dehydrator, Parson's Dehydration Plant - Hanford, Calif. 1943 October 14

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment

Scope and Content Note

Box 65:5

5642-3 Grape Dehydrator, Parson's Dehydration Plant - Hanford, Calif. 1943 October 14

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment

Scope and Content Note
Dehydrators built by Montgomery for Parson's. Bricked up furnace front with two burners connected up and place for a third. Note the air inlet spaces.

Box 65:5

6642a-h Dehydration, Davis 1942

Photographer: Guillou, Rene

Subjects and Indexing Terms
.41236 Fruit drying processing equipment

Scope and Content Note
Guillous curves on dehydration principles. For details see Guillou's article developments in fruit dehydrator design agricultural engineering, October 1942 Vol. 23 No. 10, 313-316. Note: images missing.

Box 65:5

4321a 4321b Walnut Dehydrator, Lake County 1939 Spring

Photographer: Long, J.D.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment

Scope and Content Note
Vertical Outdoor Wind dryers. On top of Mt. Konocti near Kelseyville.

Box 65:5

4042 Walnut Dehydrator 1939 May

Photographer: Weston, E.W.

Subjects and Indexing Terms
.41236 Fruit drying processing equipment

Scope and Content Note
View of gate for a continuous flow type of stack type walnut dehydrator. Experimental type designed and built by Belton & Walker.
**Pot Hole Type Rice Dehydrator, Chas. Dennis Maxwell, California 1944 January**

Photographer: Neubauer, L.W.

Subjects and Indexing Terms

.41236 Fruit drying processing equipment

Scope and Content Note

Double 4-Hole Plant. For details see Moses’ Trip Report No. 19, January 1944.

**Walnut Dehydrator, Agricultural Engineering Lab 1936 May**

Photographer: Weston, E.W.

Subjects and Indexing Terms

.41236 Fruit drying processing equipment

View of gate for a continuous flow stack type walnut dehydrator. Experimental - Walker and Belton.

**Air velocity measuring instruments, Agricultural Engineering Laboratory. 1945 April 6**

Photographer: Perry and Barbee

Subjects and Indexing Terms

.41236 Fruit drying processing equipment

**Dehydrators, Serger’s Farm South of Yuba City 1945 April**

Photographer: Perry, R. L.

Subjects and Indexing Terms

.41236 Fruit drying processing equipment

Scope and Content Note

8 ton Farm Fruit Dehydrator. C-124. Serger is satisfied with the performance of this unit - has run it two seasons - Built of Basalite, has wooden blade fan built by Ashly Single fan - because of difficult when dehydrator was not uniformly loaded he placed a V deflector in front of the fan - reports it works o.k. Man in the picture is Mr. Serger.

**Apricot Cutter 1951 August 8**

Photographer: Lorenzen, C.

Subjects and Indexing Terms

.41236 Fruit drying processing equipment

Scope and Content Note

Orienting-conveyor belt for apricot cutter. Upper, single cup for air nozzle. Lower, belt use with water orientation.

**Orientating nozzles for Apricot Cutter, Davis 1951 August 8**

Photographer: Lorenzen, C.

Subjects and Indexing Terms

.41236 Fruit drying processing equipment

(6683) various air nozzles for orienting fruit with suture horizontal. (6688) water nozzles for orienting fruit with suture horizontal.
Box 65:6

6685 6686 6687 **Apricot Cutter, Davis, Calif. 1951 August 8**

Photographer: Lorenzen, C.
Subjects and Indexing Terms .41236 Fruit drying processing equipment
Scope and Content Note
Singling Feeder for Apricot Cutter. Roller conveyor with anti-packing device and singling chute. Singling feeder replaced by feeder using water in place of rollers and chute.

Box 65:6

6689 **Apricot Cutter, Davis, Calif. 1951 August 8**

Photographer: Lorenzen, C.
Subjects and Indexing Terms .41236 Fruit drying processing equipment
Scope and Content Note
Comparison of hand and machine cut fruit. Left - hand cut; right - machine cut (Before sulfuring).

Box 65:6

6690 **Apricot Cutter, Davis, Calif. 1951 August 8**

Photographer: Lorenzen, C.
Subjects and Indexing Terms .41236 Fruit drying processing equipment
Scope and Content Note
Manifold for water orientation.

Box 65:6

6692 **Apricot Cutter, Davis, California 1951 August 8**

Photographer: Lorenzen, C.
Subjects and Indexing Terms .41236 Fruit drying processing equipment
Scope and Content Note
Halving Knives - First Model.

Box 65:6

6625 **Aimfields Almond Drier, Aimfields Almond Orchard, Esparto 1947 September 5**

Photographer: Moses, B.D.
Subjects and Indexing Terms .41236 Fruit drying processing equipment
Scope and Content Note
Sacked Grain or Port Hole Type. They have a well built tunnel - 2 rows of 32 holes each - total holes 64. Dried 200 tons in 1945. Time 8-12 hrs.
**Box 65:6**

6628a 6628b 6628c **Univ. type prune dehydrator, Butts and Saw Farm, Healdsburg. 1947 September**

Photographer: Moses, B.D.

Subjects and Indexing Terms
- .41236 Fruit drying processing equipment

Scope and Content Note

9 car 6 ton unit. Plant built of Basalite block. They dry their prunes in 12 to 24 hrs depending on the conditions (a) shows the out end (b) shows the "in" end with prune dipper and trayer on the right (c) putting fruit in at the "in" or hot end.

**Box 65:6**

5615AB **Buck rake, Davis 1943 February 16**

Photographer: Barbee, C.G.

Subjects and Indexing Terms
- .41134 Hay rakes loaders, stackers, etc.

**Box 65:7**

2491 **Beet Lifter, Santa Ana 1926 March**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .41135 Root crop diggers and harvesters

Scope and Content Note

A single row beet lifter resembling a subsoiler standard. Notice the wear on shin.

**Box 65:7**

4361a 4361b 4361c **Simple Beet Lifter 1939 October 27**

Photographer: Armer, Austin

Subjects and Indexing Terms
- .41135 Root crop diggers and harvesters

Scope and Content Note

With tilted Packer wheels. (a) Close-up of Machine. (b) Machine and 40' finished row. (c) Machine and 10' finished row.

**Box 65:7**

5444a 5444b 5444c 5444d **Loader for hand-topped beets, River Farms, Calif. 1940 October 18**

Photographer: Armer, Austin

Subjects and Indexing Terms
- .41135 Root crop diggers and harvesters

Scope and Content Note

Beets thrown onto cross drapers are elevated to 7 ton bin. (a) Right front view. (b) Left side view. (c) Detail of elevator. (d) Detail of cross draper.

**Box 65:7**

5447a 5447b 5447c **Powers-Tramontini Beet-Topper and Digger, U.C. Farm, Davis. 1940 October 14**

Photographer: Armer, Austin

Subjects and Indexing Terms
- .41135 Root crop diggers and harvesters

Scope and Content Note

Units Built on to Allis-Chalmers Model B Tractor. (a) Right side view. (b) Right rear view. (c) Right front view.
| Box 65:7 | 5477 | *Sugar Beet Machinery Investigations, Davis, Calif. 1941 July 17*  
Photographer: Weston, E.W.  
Subjects and Indexing Terms  
.41135 Root crop diggers and harvesters  
Scope and Content Note  
1941 Variable Cut Topper. Unfinished. |
| Box 65:7 | 5502a 5502b 5502c | *Two-Row Hand Sorting Sugar Beet Harvester, Al Greer field, Schneider Tract, Davis, California 1941 September 12*  
Photographer: Armer, Austin  
Subjects and Indexing Terms  
.41135 Root crop diggers and harvesters  
Scope and Content Note  
In operation. (a) Right front view. (b) Left front view. (c) Clod chute showing poor discharge from right side. |
| Box 65:7 | 5522a 5522b 5522c | *Devey Harvest System, El Centro, Calif. 1942 June 5*  
Photographer: Armer, Austin  
Subjects and Indexing Terms  
.41135 Root crop diggers and harvesters  
Scope and Content Note  
Sugar beet harvester. (a) Topping unit - right side. (b) Topping unit - left side. (c) Topping unit in operation. |
| Box 65:7 | 5524a 5524b 5524c 5524d 5524e 5524f 5524g | *Sugar Beet Harvester Trials, Indio, Calif. 1942 June 1*  
Photographer: Armer, Austin  
Subjects and Indexing Terms  
.41135 Root crop diggers and harvesters  
Scope and Content Note  
U.C. Machine at Indio, 1942. (a) Topping unit (note that the pickup prints break down the ridge, destroying the footing for the feelers. (b) Plow and digger units (note large clods leaving slow and showing coulter cut. (c) Digger choked with clods. (d) Plow delivering large clod. (e) Beets and clods in test sheet. (missed beets in center background (40%). (Beets delivered 60.8% clods delivered 39.2% by weight. (f) Windrowing conveyor (This view is typical of the clod conditions in this field. (g) Beets as windrowed by U.C. Machine. |
| Box 65:7 | 5535a 5535b 5535c 5535d | *Armer Harvesting Unit, U.C. Farm 1942 July 16*  
Photographer: Armer, Austin  
Subjects and Indexing Terms  
.41135 Root crop diggers and harvesters  
Scope and Content Note  
Disc Topper and Twisted Rod Lifter. (a) Side view, showing topper. (b) Rear view, showing twisted rod lifter. |
| Box 65:7 | 5576 | *Sugar Beet Loader, Cross Conveyor Type, Shearer and Hansen (Old Harris Ranch) 5 mi. South of Orcutt 1942 September 15*  
Photographer: Fairbank, J.P. and Walker, H.B.  
Subjects and Indexing Terms  
.41135 Root crop diggers and harvesters  
Scope and Content Note  
Hansen Bros., Santa Maria, Builder. General view showing drive of continuous potato chain conveyor, also bracing. |
Box 65:8

5577 **Sugar Beet Loader, Cross Conveyor Type, Shearer and Hansen (Old Harris Ranch) 5 mi. South of Orcutt 1942 September 15**

Photographer: Fairbank, J.P. and Walker, H.B.

Subjects and Indexing Terms
- .41135 Root crop diggers and harvesters

Scope and Content Note
Hansen Bros., Santa Maria, Builder. Front view showing tractor used for pulling. F-12 I.H.C. with extra transmission insert with lengthened frame. Speed 30' min +/-.

Box 65:8

5578 **Tractor used with Sugar Beet Loader, Shearer and Hansen (Old Harris Ranch) 5 mi. South of Orcutt 1942 September 15**

Photographer: Fairbank, J.P. and Walker, H.B.

Subjects and Indexing Terms
- .41135 Root crop diggers and harvesters

Scope and Content Note

Box 65:8

5579 **Seed Aspirator, Davis 1942 August 15**

Photographer: Armer, Austin

Subjects and Indexing Terms
- .41135 Root crop diggers and harvesters

Scope and Content Note
For reclaimed sheared seed screenings. (a) Overall view. (b) Front view - detail of hopper. (c) Side view showing throttle control.

Box 65:8

5580 **Sugar Beet Loader, Windrow Type, Laredo, Calif., Camp West Lowe Ranch 1942 September 14**

Photographer: Fairbank, J.P. and Walker, H.B.

Subjects and Indexing Terms
- .41135 Root crop diggers and harvesters

Scope and Content Note
Pasca Loader, Manufactured Minn. Moline. Used to pick up beets harvested by J. Deere Harvester. Capacity 1 ton/min. maximum.

Box 65:8

5581 **Sugar Beet Loader - Windrow Type, Camp West Lowe Ranch. Laredo, Calif. 1942 September 14**

Photographer: Fairbank, J.P. and Walker, H.B.

Subjects and Indexing Terms
- .41135 Root crop diggers and harvesters

Scope and Content Note
Pasca Loader Manufactured Minn. Moline. Close-up, front view showing pick-up and use of autoparts in construction. Cost new, approx. $800.00.
Side View of Sugar Beet Bed Lifter - Frank Alvos, Buttonwillow, Calif. on Frank Alvos Ranch. 1942 September 14

Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
2-Double point plows spaced for bed planting. Equipment used for lifting and topping 2000 tons of beets in 1942. High school boys and women used for picking up and loading beets.

Disk Topper on Case Topper - Frank Alvos Design, Buttonwillow, Calif., Frank Alvos Ranch 1942 September 14

Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Disk Topper for Bed Planting. Topper offset so that front tractor does not hit beet bed. Disks driven from beet pulley. Disks driven from belt pulley. Disks are notched and about 14" in diameter.

Sugar Beet Harvesting Investigations, Davis, Calif. 1942 August 11

Photographer: Armer, Austin
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Disk Topper and Twisted Red Lifter. (a) Detail of Topper. (b) Detail of lifter.

USBSAN Beet Harvester, U.C. Farm, Davis. 1942 July 16

Photographer: Armer, Austin
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Structural details; (a) Topper unit. (b) Coulters and jointers with hydraulic lift cylinder; (c) Finder and leaf pick up drums; (d) Axial view - Pick up points finder, knife and plow points; (e) Digger unit, left side; (f) Digger unit right side; (g) Digger unit, rear view; (h) Windrowing conveyor.

Sugar Beet Topper, Research Laboratory 1945 March

Photographer: Powers, J.B.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Note: Images are missing. (a) Kinematic Diagram of Variable Cut Sugar Beet Topper. (b) Sketch of sugar beets in growing position. (c) Height and Location of Lowest Leaf Scar of Sugar Beets of Different Diameters. (d) Graph Used in Determination of Relative Elevation of Finder and Knife in a Sugar Beet Topper.
4254a 4254b 4254c  Sugar Beet Harvesting, Salinas Valley 1938 September 10
  Photographer: Winters, J.S.
  Subjects and Indexing Terms
  .41135 Root crop diggers and harvesters
  Scope and Content Note
  Bolting. 60% of the beet crop halted this year making it necessary to use field type ensilage harvesters to reduce the growth before harvesting.

5442a 5442b  Armer disk topper, U.C. Farm, Davis 1940 October 8
  Photographer: Armer, Austin
  Subjects and Indexing Terms
  .41135 Root crop diggers and harvesters
  Scope and Content Note
  As mounted in harvester frame. (a) Side view. (b) Top view.

4397a 4397b 4397c  Modified Moline Beet Lifter, Davis 1940 April 19
  Photographer: Armer, Austin
  Subjects and Indexing Terms
  .41135 Root crop diggers and harvesters
  Scope and Content Note
  Twisted rods added to lay beets on top of ground. (a) Side View. (b) Side View. (c) Rear View.

5441a 5441b 5441c  Sugar Beet Investigations, U.C. Farm, Davis 1940 October 8
  Photographer: Armer, Austin
  Subjects and Indexing Terms
  .41135 Root crop diggers and harvesters
  Scope and Content Note
  Effect of Coulter with Jointers on Row of topped beets. (a) Coulter and jointers mounted in lifter frame. (b & c) Views of beet row after action of jointers.

5401a 5401b 5401c 5401d  Rotary Flail Beet topper, Hunt Brothers #9, Holtville, Calif. 1940 May 20
  Photographer: Armer, A
  Subjects and Indexing Terms
  .41135 Root crop diggers and harvesters
  Scope and Content Note
  (a) Topper and Inventor. (b) Topper with flail drum rotating. (c) Topper operating down row (2nd time over same rows). (d) Beet Crowns after prolonged flailing.

4368a 4368b 4368c 4368d  Devey Beet Topper, Davis, Calif. 1936 November 8
  Photographer: A. Armer
  Subjects and Indexing Terms
  .41135 Root crop diggers and harvesters
  Scope and Content Note
  Operating at Davis, Calif. (a) Topper in Greer's East field. (b) Topper in bad weed conditions. (c) Detail of dish and finder mechanism. (d) Beets topped in 100' of row.
**Box 65:9**

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
<th>Photographer</th>
<th>Subjects and Indexing Terms</th>
<th>Scope and Content Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>4353</td>
<td><em>Sugar Beet Topper, McDonald Island 1939 October 11</em></td>
<td>Armer, Austin</td>
<td>.41135 Root crop diggers and harvesters</td>
<td>John Zuckerman Design, for 4 rows. Side view, in operation.</td>
</tr>
<tr>
<td>4347a</td>
<td><em>Sugar Beet Digger and Loader, McDonald Island 1939 October 11</em></td>
<td>Armer, Austin</td>
<td>.41135 Root crop diggers and harvesters</td>
<td>John Zuckerman Design for 4 rows. (a) Front view in operation. (b) Detail of spiked pick up wheels. (c) Rear view. (d) Side view, idle side.</td>
</tr>
<tr>
<td>4376a</td>
<td><em>Tramontini's Vibrator, Davis 1940 March 22</em></td>
<td>Armer, Austin</td>
<td>.41135 Root crop diggers and harvesters</td>
<td>Vibrating fork beet lifter. 2 Views of machine in beet plot. (a) Vibrator unit and Colorado lifter. (b) Vibrator unit with beet on fork.</td>
</tr>
<tr>
<td>4358a</td>
<td><em>Sugar Beet Digger and Loader, Mandeville Island 1939 October 10</em></td>
<td>Armer, Austin</td>
<td>.41135 Root crop diggers and harvesters</td>
<td>Roscoe Zuckerman Design. (a) Left front view machine working on topped beet. (b) Left side view of machine. (c) Left side view, machine starting.</td>
</tr>
<tr>
<td>4363a</td>
<td><em>Roscoe Zuckerman Beet Topper, Mandeville Island 1939 October 26</em></td>
<td>Armer, Austin</td>
<td>.41135 Root crop diggers and harvesters</td>
<td>4 row tractor drawn unit. (a) Machine Operating in field. (b) Rear view in shop. (c) Side view in shop.</td>
</tr>
</tbody>
</table>
Box 65:10

4367a 4367b 4367c 4367d **Devey Beet Digger, Davis Farm 1939 November 10**

Photographer: Armer, Austin
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Built by John Devey (a) Side View of digger. (b) Rear view of digger. (c) Digger points and picker shafts. (d) View from below digger points

Box 65:10

4359 **Sugar Beet Digger and Loader, McDonald Island 1939 April 11**

Photographer: Armer, Austin
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
John Zuckerman Design, for 4 rows. Side view, delivery side.

Box 65:10

4354 **Truckload of Sugar Beets, McDonald Island 1939 October 11**

Photographer: Armer, Austin
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Dug by John Zuckerman digger and loader. Note large quantity of soil (about 100 lbs. of soil per ton of beets).

Box 65:10

4356a 4356b 4356c 4356d **Sugar Beet Topper, Mandeville Island 1939 October 12**

Photographer: Armer, Austin
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Roscoe Zuckerman Design. (a) Detail of finder wheels and knives. (b) Rear view of finder and knife assemblies for 4 rows. (c) Left rear view of machine in operation on 4 rows. (d) Right rear view of machine idle.

Box 65:10

4362a 4362b **Rimple Beet Lifter, University Farm Beet Plot 1939 October 19**

Photographer: Armer, Austin
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Packer Wheels Mounted on Same Shaft. (a) Side View. (b) View of drive mechanism.
Box 65:11 5635a 5635b 5635c Conversion Unit for Oliver Superior Drill, Davis, Calif. 1943 April 15

Photographer: Weston, E.W.  
Subjects and Indexing Terms: .41135 Root crop diggers and harvesters  
Scope and Content Note: Further modification necessary for use. Motor plate (18 gauge) made and installed - lower part of casting cut off. These changes necessary to prevent grinding of seed and give uniform drop.

Box 65:11 4355 Row of Sugar Beets, Sugar Beet Plot, Davis 1939 October 13

Photographer: Armer, Austin  
Subjects and Indexing Terms: .41135 Root crop diggers and harvesters  
Scope and Content Note: Lifted by Rimple plow. Beets were retained in the lifted position by packer wheels.

Box 65:11 4351 Sugar Beet Topper, McDonald Island 1939 October 11

Photographer: Armer, Austin  
Subjects and Indexing Terms: .41135 Root crop diggers and harvesters  
Scope and Content Note: John Zuckerman Design for 4 rows. Rear view, in operation.

Box 65:11 4349 Topped Sugar Beets, McDonald Island 1939 October 11

Photographer: Armer, Austin  
Subjects and Indexing Terms: .41135 Root crop diggers and harvesters  
Scope and Content Note: Work done by John Zuckerman topper. Left pile - unacceptably topped. Right pile - acceptably topped.

Box 65:11 4348 Sugar Beet Digger and Loader, McDonald Island 1939 October 11

Photographer: Armer, Austin  
Subjects and Indexing Terms: .41135 Root crop diggers and harvesters  
Scope and Content Note: John Zuckerman Design for 4 rows. Front view in operation.
| Box 65:12 | 5584 | Two Row "Bed Planted" Beet Plow Equipped with Rods, Buttonwillow, Calif.  
Frank Alvos Ranch. 1942 September 14 |
<table>
<thead>
<tr>
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<tr>
<td></td>
<td>Photographer: Fairbank, J.P.</td>
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<td>Subjects and Indexing Terms</td>
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<td></td>
<td>.41135 Root crop diggers and harvesters</td>
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<td></td>
<td>Scope and Content Note</td>
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<tr>
<td></td>
<td>Mounted on Case Tractor. 2 Double point beet plows used with disk topper for bed planting. Used for digging 2000 tons sugar beets, 1942.</td>
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<thead>
<tr>
<th>Box 65:12</th>
<th>5585</th>
<th>Sugar Beet Loader, Cross Conveyor Type, Owen Rice Farm about 2 mi. southeast of Santa Maria, Calif. 1942 September 15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Fairbank, J.P. and Walker, H.B.</td>
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<td>Subjects and Indexing Terms</td>
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<td>.41135 Root crop diggers and harvesters</td>
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<td></td>
<td>Scope and Content Note</td>
<td></td>
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<tr>
<td></td>
<td>Chev. Truck and Potato Chain and Digger Parts. View showing 3H.P. I.H.C. engine and drives to elevator and conveyor. Hansen Bros, Santa Maria assisted in construction.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 65:12</th>
<th>5586</th>
<th>Sugar Beet Loader, Cross Conveyor Type, Owen Rice Farm - about 2 mi southeast of Santa Maria, Calif. 1942 September 15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Fairbank, J.P. and Walker, H.B.</td>
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<td></td>
<td>Scope and Content Note</td>
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<tr>
<th>Box 65:12</th>
<th>5587</th>
<th>Sugar Beet Loader - Alternate Beds - 8 rows, Major Co. Ranch, 3-4 mi. north of Soledad, east side of Highway 1942 September 16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Fairbank, J.P. and Walker, H.B.</td>
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<td>Subjects and Indexing Terms</td>
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<td></td>
<td>Scope and Content Note</td>
<td></td>
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<tr>
<td></td>
<td>Drawn by R.D. 4 tractor 2nd gear. Made from fertilizer belt, conveyor and car chassis. Conveyor driven from car engine, but drawn in field by tractor. Used in connection with Devey 2-row disk Topper and Devey 2-row lifter.</td>
<td></td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Box 65:12</th>
<th>5590</th>
<th>Sugar Beet Field near Soledad, Calif., Major Farming Corp., Soledad 1942 September 16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Fairbank, J.P. and Walker, H.B.</td>
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<tr>
<td></td>
<td>Subjects and Indexing Terms</td>
<td></td>
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<tr>
<td></td>
<td>.41135 Root crop diggers and harvesters</td>
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<tr>
<td></td>
<td>Scope and Content Note</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Showing beet field topped and plowed with Devey Equip. Picture shows alternate beds topped and lifted to surface, other beds topped only. See end of cross conveyor loader at right.</td>
<td></td>
</tr>
</tbody>
</table>
Box 65:12  5591  Devey Sugar Beet Lifter for Bed Planting, Major Ranching Corp., Soledad 1942 September 16
Photographer: Fairbank, J.P. and Walker, H.B.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Bed lifter with apparatus to bring beets to surface. This shows apparatus at rear of plow to lift beets above the clods.

Box 65:12  5592  Devey Sugar Beet Lifter, Major Ranch north of Soledad, Calif. 1942 September 16
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Bed lifter for lifting mechanically topped beets. Picture shows details of plow points and dirt screens.

Box 65:12  5601a 5601b 5601d 5601e  John Deere Beet Harvester, Camp West Lowe Ranch, Covelo, Calif. 1942 July 10
Photographer: Bainer, Roy
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Harvester working on beets grown in potato type soil. Irrigated 10 days preceding harvest. Machine harvest 1 row; puts 4 rows of tops and 8 rows of beets in windrows on either side of machine.

Box 65:12  5634  Sugar Beet Machinery, Davis, California 1943 April 15
Photographer: Weston, E.W.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Stand Curves for Blocking. Include odd spacing (5.3") of Dixie Thinner.

Box 65:12  5608a 5608b  Sugar Beet Machinery, Imperial Valley 1943 January 10
Photographer: Winters, J.S.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Planting and sheared seed. Planted at 3#/A. Thinned and Hold in one operation. Considerable cut warm [clammage]. Seedlings held in man's hand (Brown of Holly Co.) are all removed from 4 rows between camera and man during the thinning operation.

Box 65:13  5611  Sugar Beet Machinery, Imperial Valley 1943 January 10
Photographer: Winters, J.S.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Planting of Sheared Seed. Seeding rate 5#/A. Thinned by hand at $8.00/A. Planted Sept. 4, 1942.
Box 65:13 5501 Sugar Beet Machinery, Davis 1941 August 30
Photographer: Weston, E.W.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Sheared Sugar Beet Seed. Sheared seed (U.S. 15) at top. Original below. Original 76.25% Germ. 2.1 seedlings per seed ball. Sheared 79.25% Germ 1.18 seedlings.

Box 65:13 5476 Sugar Beet Machinery Investigations, University Farm 1941 June 15
Photographer: Weston, E.W.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Sheared Beet Seed. Seed at right is seed after shearing - seed on left side of picture is the original.

Box 65:13 4399 Disc topper in operation, Hunt Bros. Ranch #9, Holtville 1940 May 21
Photographer: Armer, Austin
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Disc penetrating soil 2” to top low hat.

Box 65:13 5612 Sugar Beet Machinery, Imperial Valley 1943 January 10
Photographer: Winters, J.S.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Plantings of Sheared Seed. Seedlings rate 3 1/2 #/a. Thinned by hand at $8.00/a.

Box 65:13 5613a 5613b Marion Beet Harvester, Cliff Totman’s Place, Kings Island. 1943 January 15
Photographer: Bainer, Roy
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Built by L. Schimdt for Al Janganeel of Ryer Island. Untopped beets are lifted by a spiked wheel. Topping is done by chisel like point.

Box 65:13 5623a 5623b 5623c 5623d Conversion Seeder Unit for Oliver #9 Superior Drill, Davis 1942 December 20
Photographer: Weston, E.W., E.W.
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
For Sheared Seed Plantings. Seeder Unit equipped with an E921 bird bill reducer unit. Reducer was modified by grinding throat to 17/32”, suppling clip for holding in place a special oscillating agitator (not shown) was necessary. Could be used for seeding rates down to 5#/a.
Conversion Seeder Unit for Oliver #9 Superior Drill, Davis 1942 December 20

Photographer: Weston, E.W.

Subjects and Indexing Terms
.41135 Root crop diggers and harvesters

Scope and Content Note
For sheared seed plantings. A 40 flute (45 degree angle/wheel) was used with special metering plate. Bottom of casting was cut away to allow seed to drop at extreme bottom of wheel travel. Seeding rate down to 3#/a.

Conversion Seeder Unit Minneapolis - Moline Monitor Drill, Davis 1943 January 10

Photographer: Weston, E.W.

Subjects and Indexing Terms
.41135 Root crop diggers and harvesters

Scope and Content Note
For sheared Seed Planting. Top and bottom view and parts for an adjustable top delivery feed. Uses 20 flute roll, meter gate adjustable cut-off and 2 pronged agitator. Good for seeding rates down to 4#/a.

Sugar Beet Machinery Investigation, Davis. 1943 March 2

Photographer: Weston, E.W.

Subjects and Indexing Terms
.41135 Root crop diggers and harvesters

Scope and Content Note
Conversion seeder unit - Minneapolis - Machine drill. Conversion unit built by Minn - Moline Co. Patterned after one built by F.A. Brooks. This feed roll has 20 instead of 10 flutes. Operates twice as fast as in an opposite direction.

Conversion Seeder Unit, Minn. - Moline Monitor Drill. 1943 January 10

Photographer: Weston, E.W.

Subjects and Indexing Terms
.41135 Root crop diggers and harvesters

Scope and Content Note
For Sheared Seed Planting. A 20 flutes wheel was substituted for regular 10 flute wheel. Cut off was relieved 1/8” and the seal washer was modified to take the new wheel seeds down to 4#/a.

Armer-Rimple Beet Harvester, Greer Ranch, Davis, Calif. 1940 August 21

Photographer: Armer, Austin

Subjects and Indexing Terms
.41135 Root crop diggers and harvesters

Scope and Content Note
Showing Field Operations. (a) Right Side View. (b) Left Side View. (c) Rear Side View.

Beet Harvester using Hand Sorting, Davis, California 1940 September 18

Photographer: Armer, Austin

Subjects and Indexing Terms
.41135 Root crop diggers and harvesters

Scope and Content Note
Operating in 20-ton yield near Davis. (a) View of entire harvester. (b) View of fields and clods on sorting belt.
Box 65:14

5443a 5443b 5443c 5443d **Morris Bros. 4 Row Beet Lifter, Grimes, California. 1940 October 18**

Photographer: Armer, Austin
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
Killefer frame with 4 double pointed plows. (a) Plow in lifted position. (b) Plow working in beet field. (c) Detail of swinging hitch. (d) Detail of plow points.

Box 65:14

4196A 4196B 4196C **Sugar Beet Harvester, Snyder Ranch 1938 July 6**

Photographer: Bainer, Roy
Subjects and Indexing Terms
.41135 Root crop diggers and harvesters
Scope and Content Note
(Sishe) Lifter. Dig and windrows 2 rows at a time. Cross conveyor may be adjusted to put 6 rows in a windrow. Beets are topped by hand after digging.

Box 65:14

Unnumbered **Irrigation Installation, Sanger 1921 November**

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41241 Pumps
Scope and Content Note
Not protected from weather.

Box 65:14

2441a 2441b **Hydraulic [Ram?], northeast of [Marysville] 1925 October**

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41241 Pumps
Scope and Content Note
Pumping from a spring for domestic use.

Box 65:14

Unnumbered **Pumping for Irrigation 1922**

Photographer: R.R.[S.]
Subjects and Indexing Terms
.41241 Pumps

Box 65:14

3795a 3795b **Pumps, Agricultural Engineering Building 1934 March 29**

Photographer: Bainer, Roy
Subjects and Indexing Terms
.41241 Pumps
Scope and Content Note
Panama Rotary fire Pump. Pump attaches to cylinder head and is driven off the fan belt. Capacity 5 to 15 g.p.m. against 40 to 80 pounds pressure.

Unnumbered **Hydraulic [?], Near Bonney Doon, Santa Cruz Mts. undated**

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.41241 Pumps
Scope and Content Note
30-40 ft drive line, about 500 [?]. Operated for a number of years no replacement of parts.
Box 65:14  1140 **Hydraulic Ram Water Supply Dam, Near Bonney Doon, Santa Cruz Mts July 2**
Photo: Stirniman, E.J.
Subjects and Indexing Terms.
-.41241 Pumps
Scope and Content Note.
Filled with Sand. Gate in dam must be opened to let sand washout.

Box 65:14  1728 **Hydraulic Lab, Lincoln, Neb. 1924 January 18**
Photo: Stirniman, E.J.
Subjects and Indexing Terms.
-.41241 Pumps
Scope and Content Note.
Agricultural Engineering Division. A corner in the hydraulic lab showing pump belted to motor pumping into a concrete weir box.

Box 65:15  4057 **Deep Well Pump 1937 March 31**
Photo: Weston, E.W., E. W.
Subjects and Indexing Terms.
-.41241 Pumps
Scope and Content Note.
Peerless Turbo Pump.

Box 65:15  1569 **Pump, San Bernardino 1923 April**
Photo: Stirniman, E.J.
Subjects and Indexing Terms.
-.41241 Pumps
Scope and Content Note.
Ames Mfg. in Pomona. Quick return plunger.

Box 65:15  AE 313N **Pumps, University Farm, Davis 1920 January**
Photo: Hoffman, A.H.
Subjects and Indexing Terms.
-.41241 Pumps
Scope and Content Note.
Holt 75 pumping irrigation water, 225' well.

Box 65:15  1492-93 **Air Lift Pump, Texas (Near El Paso) 1923 November**
Photo: L.J.F.
Subjects and Indexing Terms.
-.41241 Pumps
Scope and Content Note.
Pumps used to supply water for S.P. railroad. Compressor house located near pumps.

Box 65:15  2444a 2444b **Old Pump Parts, Independence (Los Angeles City Water Dept.) 1926 November**
Photo: Stirniman, E.J.
Subjects and Indexing Terms.
-.41241 Pumps
Scope and Content Note.
Parts of screw pumps worn out or wrecked.
Centrifugal Pump, Stony Creek - Glenn Co. (Mr. A. Kaiser) 1925 July

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
.41241 Pumps

Scope and Content Note
A cent. pump hanging over a bank and anchored to trees. This pump was driven by a 75 Cat tractor. The end of the suction line was held by a chain hoist and lowered when necessary.

Belted Pump, Soledad, Hansen Bros. Ranch 1925 December

Box 65:15

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
.41241 Pumps

Scope and Content Note
A belted, short couple pumping plant. A Kimball screw pump having a static pumping lift of 205 ft.

Irrigation by Pumping, 4 miles West of Dixon, north of road 1/2 mile. 1940 August 18

Box 65:15

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41241 Pumps

Scope and Content Note
Electrically driven vertical pump. This pump furnishes water for alfalfa hay in [?] in foreground.

Box or "Portuguese" Pump, Hastings Ranch near Rio Vista. 1928 September

Box 65:15

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
.41241 Pumps

Scope and Content Note
Homemade pump for raising water from canal to irrigation ditch.

Electric Driven Pump, McNari Dairy 1925 February 14

Box 65:15

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41241 Pumps

Scope and Content Note
Motor driving pump formerly driven by windmill.

Deep Well Pump, Near Los Angeles 1927 August

Box 65:16

Photographer: Moses, B.D.

Subjects and Indexing Terms
.41241 Pumps

Scope and Content Note
Direct connect deep well pump.
Box 65:16 1814 **Booster Pumps, California Orchard Co., King City 1925 March 27**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .41241 Pumps

Scope and Content Note
3B and J Cent. Pumps. Pump #1 and 2 designed for 80’ head. They can be operated in parallel or series. Pump #3 designed for 160’ head. A pond floats on the line allowing the pumps to operate with a + or - suction lift.

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Box 65:16 695a 695b 695c **Water Pumps, Ontario 1921 Summer**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .41241 Pumps

Scope and Content Note

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Box 65:16 1768 **Pump House with B and J Pump, A.H. Humphrey Ranch 1925 January**

Photographer: Moses, B.D.

Subjects and Indexing Terms
- .41241 Pumps

Scope and Content Note
Near Mayhew .8 miles out on the Folsom road. Note - Drop windows.

---

Box 65:16 2899 **Pumping Equipment, Holland Land Co. 1928 March**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .41241 Pumps

Scope and Content Note
Tractor Pump Unit. A portable tractor pumping unit used to pump from the ditch various points for irrigation.

---

Box 65:16 2442 **Pumping Plant in Pit, Greenfield 1925 December**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .41241 Pumps

Scope and Content Note
Spreckels Co. plant tested by C.N. Johnston and E.J. Stirniman.

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Box 65:16 2445 **Pumping Plant Stand Pipe, Soledad, Hansen Bros. 1925 December**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
- .41241 Pumps

Scope and Content Note
Standpipe approx. 65’ high. This pump was lifting 205’ to surface. Water would spill over top when starting.
**Box 65:16**

1812a 1812b 1812c 1812d **Pumping Plant, Mr. Fox near Corning, California 1925 March**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.4124 Pumps

Scope and Content Note

Pump school. Pump - [Wimsby?] - Size 3" cent. G.P.M. tested 200.25. Total lift 22.' Plant eff. = 16.5%.

---

1815a 1815b 1815c **Pumping Plant, Salinas Land Co., King City 1925 February 26**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.4124 Pumps

Scope and Content Note

Switch board and pump house no. 12. The Land Co. will have completed 14 such installations by 1926. Some were installed in 1918-19.

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1816a 1816b 1816c 1816d **[Sounder?] for Well Testing, Salinas Land Co., King City 1925 February 26**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.4124 Pumps

Scope and Content Note

Telephone Head and cable setting beside pump. Telephone head and cable used in determining water level in well. A very accurate system to use when installation does not have air tube.

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**Box 65:17**

**Well Drilling Outfit, Owens Valley undated**

Photographer: 

Subjects and Indexing Terms

.4124 Pumps

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**Box 65:17**

1813a 1813b **Starting box and Meter, Mr. Sales, Red Bluff 1925 March 20**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.4124 Pumps

Scope and Content Note

Pump School. Poor electric installation

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**Box 65:17**

5534a 5534b 5534c **Elevators, Davis, California 1942 May**

Photographer: Fairbank, J.P.

Subjects and Indexing Terms

.4125 Elevators

Scope and Content Note

Portable chain drag elevator. (a) Full size model except only 6 ft. long of elevator #B-212. (b) View of wooden flights looking into elevator with discharge spout removed. (c) A method of driving elevator consists of an automobile drive shaft with 2 universal joints connected to rear wheel of an automobile which turned 150 rpm.
5530a 5530b **Portable Grain Elevator, Davis 1942 May**  
Photographer: Fairbank, J.P.  
Subjects and Indexing Terms  
.4125 Elevators  
Scope and Content Note  
Vertical cup-type elevator. Homemade portable cup elevator. (a) Capacity 4 bushels per minute. Complete plans in farm building plan service - B-207. (b) Shows head guide that drops in the top of elevator to direct grain over into discharge spout.

5537a 5537b 5537c **Grain Elevators, Davis 1942 June**  
Photographer: French, O.C.  
Subjects and Indexing Terms  
.4125 Elevators  
Scope and Content Note  
Portable Screw Elevator. 6" dia. screw, 10' long plywood housing 7" square on inside. See Project 400-D for operating characteristics. (a) Complete unit. (b) Detail of bevel gear drive on lower end, (c) Upper bearing is combustion radial and thrust bearing. Note 45 degree corners on inside of housing.

5531 **Grain Elevator, Davis 1942 May**  
Photographer: Fairbank, J.P.  
Subjects and Indexing Terms  
.4125 Elevators  
Scope and Content Note  
Portable Cleat Elevator. Carrier type of portable elevator using cotton belting, wooden or metal cleats 1" high. Cap. 4 to 6 bushels per min. See farm building plan service plan C-211 for details.

4032a 4032b **Walnut Elevators 1936 September**  
Photographer: Moses, B.D. and Fairbank, J.P.  
Subjects and Indexing Terms  
.4125 Elevators  
Scope and Content Note  
Elevators and hoppers. "A" and "B" Walnut elevator and hopper at the Mines Plant, Elsinor.

**Farmstead, Durham State Land Settlement, California. 1918 November**  
Photographer: Cook, Max E. (Sent to Prof. Davidson)  
Subjects and Indexing Terms  
.7 Farm Buildings and Fences  
Scope and Content Note  
Farmer's house and alfalfa field, allotment 37. Owner F.E. Baxter - Durham, California.
Box 65:18

2619m 2619n 2619o 2619p 2619q 2619r **Buildings, University Farm, Davis 1928 March 9**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.7 Farm Buildings and Fences
Scope and Content Note
Progressive steps in Agricultural Engineering Building [Walker Hall], (m) south wall, main floor. (n), Middle of north wall, main floor. (o), Window in south wall near S.W. cor. (p) northwest corner, main floor. (q), steel shape for floor girder. (r), steel over north door, main floor.

Box 65:18

2699a 2699b **Agricultural Engineering Building at Madison, Wisconsin 1928 July**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.7 Farm Buildings and Fences
Scope and Content Note
(a) Agricultural Engineering Building at Madison, Wisconsin. (b) Sign on Wisc. campus drives. Students are not permitted to operate cars on U. of Wis. campus. Also certain parking places were marked "reserved" so that staff members need not hunt places.

Box 65:18

1754a 1754b **Antenna? Pole, Davis, Agricultural Engineering Shops 1924 October**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.7 Farm Buildings and Fences
Scope and Content Note
Constructing and Assembling.

Box 65:19

1868 **Manure Pit, Baxter Dairy, Durham, Cal. 1925 May 8**

Photographer: Long, J.D.
Subjects and Indexing Terms
.705 Framing
Scope and Content Note
Room for concrete work.

Box 65:19

1874a 1874b 1874c **Dairy Barn Construction - Baxter Dairy, Durham, Cal. 1925 Spring**

Photographer: Baxter and Long, J.D.
Subjects and Indexing Terms
.705 Framing
Scope and Content Note
Monolithic concrete. See other cards for pictures of further details.

Box 65:19

1870a 1870b 1870c 1870d 1870e 1870f 1870g **Dairy Barn Construction, Baxter Dairy, Durham Cal. 1925 Spring**

Photographer: Baxter
Subjects and Indexing Terms
.705 Framing
Scope and Content Note
Monolithic concrete. Steps in the construction of barn built by Mr. Baxter himself, following plans furnished by this office. See other cards for pictures of further details and exterior.
1870h 1870i 1870j 1870k Dairy Barn Construction, Baxter Dairy, Durham Cal. 1925

**Spring**

Photographer: Baxter

Subjects and Indexing Terms

.705 Framing

Scope and Content Note

Monolithic Concrete. See other cards for pictures of other details and exterior.

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Box 65:19

1326c **Roof Trusses - Framing, Regent Foster's Ranch 1921 April**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.705 Framing

Scope and Content Note

Views of framing of shelter sheds. See file .723 for exterior.

---

Box 65:19

2262a 2262b 2262c "Lamella" framed barn, Edward W. Faust Farm, Olive St. Road, near St. Louis, Mo. Built in 1925

Photographer: Rephotographed from motion picture file.

Subjects and Indexing Terms

.705 Framing

Scope and Content Note

Trussless Arch. "Lamella construction completed in 24 actual working hours with one carpenter and seven helpers." Barn 50 x 100 x 36 ft. high. Trussless Arch Roof. Co., 917 Commercial Exchange Bldg., Los Angeles.

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Box 65:19

1326a 1326b 1326c **Roof Trusses - Framing, Regent Foster's Ranch, Hopland. 1921 April**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.705 Framing

Scope and Content Note

Views of framing of shelter sheds. See file .723 for exterior.

---

Box 65:19

1585a 1585b **Forming for concrete foundation, University Farm. 1924 April**

Photographer: Long, J.D.

Subjects and Indexing Terms

.705 Framing

Scope and Content Note

R and P Div. shop. Note method of placing form in trench and spacing by template. See also no. 1586.

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Box 65:19

1586a 1586b **Forming for Concrete Foundation, University Farm. 1924 April**

Photographer: Long, J.D.

Subjects and Indexing Terms

.705 Framing

Scope and Content Note

Foundation for R and P Div. Shop. Forms built in panels and staked in place. Note corner construction for layout and method of forming for interior wall. (See also no. 1585)
<table>
<thead>
<tr>
<th>Box 65:19</th>
<th>1177  Incorrect Framing, Florence Dobbs Ranch - 6 mi southwest of Arbuckle 1923 October 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Hoffman, A. H.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .705 Framing</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Note bulge in sidewall due to not breaking joints in placing sheathing board.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 65:19</th>
<th>1374  Roof Framing for Small Barn, A.L. Fairbanks ranch - 6 mi south of Arbuckle 1923 October 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Hoffman, A. H.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .705 Framing</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Note roof truss and purlin construction. 4x6 truss members for center - 2x4 either side.</td>
</tr>
<tr>
<td></td>
<td>Truss over door omitted. Note - extra heavy purlin - 2x4 purlin placed wrong. Should be on edge - Diagonal sheathing should be used. Barn constructed of salvage lumber.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 65:19</th>
<th>1155  Spliced Rafters, Orange County Undated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Stirniman, E.J.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .705 Framing</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Held by four or five nails, side walls of light construction.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 65:20</th>
<th>1851  Depreciation, Campbell Ranch near Straloch Farms, 2 miles west of Davis 1923 October 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Long, J.D.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .705 Framing</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Setting of wall posts produces roof strain and ragged eave line. Hay pressure bursting out end of barn repaired by horizontal boarding inside of frame. Slide made and in A.E. files.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 65:20</th>
<th>3050a 3050b  Depreciation, 5 miles west of Colusa 1930 February</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Long, J.D.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .705 Framing</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Due to poor farming. Hay in center barn metal covered, blown down. Inadequate lengthwise bracing.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 65:20</th>
<th>1148a 1148b  Depreciation of Farm Buildings, Ranch of John Kash between Galt and Lodi near county line. 1923 October</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Hoffman, A.H.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .705 Framing</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Inadequate framing mostly in lack of cross ties. Slide made in A.E. file.</td>
</tr>
</tbody>
</table>
Box 65:20 1150a 1150b 1150c Depreciation of Farm Buildings, Deserted dairy Ranch half way between Benicia and Cordelia. 1923 October 4

Photographer: Long, J.D.
Subjects and Indexing Terms .705 Framing
Scope and Content Note

Box 65:20 1337c  Depreciation of Farm Buildings, Deserted Ranch near Davis. 1923 October

Photographer: Long, J.D.
Subjects and Indexing Terms .705 Framing
Scope and Content Note
Break showing in roof due to lack of cross ties or interior braces to purlin to support ridge. Wooden sill placed on ground. Bulge in end due to inadequate framing to support hay.

Box 65:20 1337a 1337b  Depreciation of Farm Buildings, Deserted Ranch 3 miles north of Davis. 1923 October

Photographer: Long, J.D.
Subjects and Indexing Terms .705 Framing
Scope and Content Note
Wreck of a building apparently a machine shed. "Finis" may well apply to end of depreciation of structure. Slide made and in A.E. File.

Box 65:20 1349  Depreciation of Farm Buildings, Deserted Ranch half way between Benicia and Cordelia on highway. 1923 October 4

Photographer: Long, J.D.
Subjects and Indexing Terms .705 Framing
Scope and Content Note
The lack of cross ties or of interior bracing for purlin posts has permitted weight of bridge to force purlins out and make a break in roof slope. Also posts have settled under weight of shed giving uneven eave line framing typical of many buildings in this section of the state.

Box 65:20 1336c 1336d Depreciation due to framing, Campbell Ranch west of Davis. 1923 October

Photographer: Long, J.D.
Subjects and Indexing Terms .705 Framing
Scope and Content Note
The lack of cross ties or of interior bracing for purlin posts has permitted weight of bridge to force purlins out and make a break in roof slope. Also posts have settled under weight of shed giving uneven eave line framing typical of many buildings in this section of the state.
Box 65:20
1336g 1336h **Depreciation due to framing, Campbell Ranch undated**
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .705 Framing

Box 65:21
1336i 1336j **Depreciation due to framing, Campbell Ranch undated**
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .705 Framing

Box 65:21
1336e 1336f **Depreciation due to framing, Campbell Ranch 1923 October**
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .705 Framing

Box 65:21
2414 **View of an Orange Grove, San Dimas, Calif. 1926 December**
   Photographer: Moses, B.D.
   Subjects and Indexing Terms
   .71 & .711 Dwelling houses
   Scope and Content Note
   Farm houses and out houses. Name not known.

Box 65:21
3312a 3312b **Tenant Houses, Pratt Farm, Fredonia, Kansas 1921 July**
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .71 & .711 Dwelling houses
   Scope and Content Note
   Mr. E. Stanton. Hold for negative.

Box 65:21
3898a 3898b 3898c **Farm House, near Fredonia, Kansas 1933 July**
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .71 & .711 Dwelling houses
   Scope and Content Note
   Stone Construction.

Box 65:21
3897a 3897b **Farmhouse, near Lafayette 1934 August**
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .71 & .711 Dwelling houses

Box 65:21
3895a 3895b 3895c **Small Dwelling, Patrick residence, D St. Davis 1934 July**
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .71 & .711 Dwelling houses
   Scope and Content Note
   Concrete slab floor and light wood frame. Sign reads: Jas. Duthie, Builder
| Box 65:21 | 3154 | **Farm Houses, La Lomita ranch, Lockeford 1930 September**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.71 & .711 Dwelling houses  
Scope and Content Note  
Owner's home; view of two bunk houses and dairy barns, milking barn, calf barn and bull barn. |
| Box 65:21 | 161 | **Farm Residences, Grinnell, Iowa 1915**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.71 & .711 Dwelling houses  
Scope and Content Note  
Sleeping Porch |
| Box 65:22 | 2248 | **Farm Dwelling, near Fresno, Fowler District 1926 October 22**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.71 & .711 Dwelling houses  
Scope and Content Note  
Home on the Steyer Ranch rented by Sullivan. This is one of the farms covered by D.C. Heitsu's Survey July 1926. |
| Box 65:22 | 2260a | **Farm Dwelling, near Merced 1926 October**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.71 & .711 Dwelling houses  
Scope and Content Note  
Combined with tank house. |
| Box 65:22 | 2260b | **Farm Dwelling, near Merced 1926 October**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.71 & .711 Dwelling houses  
Scope and Content Note  
Combined with tank house. |
| Box 65:22 | 1109 | **Court System of Housing, Ames, Iowa 1922 June**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.71 & .711 Dwelling houses  
Scope and Content Note  
Home on the Steyer Ranch rented by Sullivan. This is one of the farms covered by D.C. Heitsu's Survey July 1926. |
| Box 65:22 | 1164 | **Radio Dwelling Houses and Farmstead, south of Dixon on highway 1923 August**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.71 & .711 Dwelling houses  
Scope and Content Note  
Radio installed among first things on new farmstead. |
| Box 65:22 | Unnumbered | **Farm House undated**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.71 & .711 Dwelling houses  
Scope and Content Note  
Schmidt residence west of Davis. |
Box 65:22 1841 **Farm Residence, J. F. Waterman, R. 2 - El Centro, Cal. 1925 June**

Photographer: Long, J.D., J.D.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note
Imperial Valley conditions. Ventilated roof, lath covered porch, tile and adobe side walls. High ceilings. See Trip Report #17.

Box 65:22 1611a 1611b **Concrete House, R.W. Morehead Ranch, Sutter 1924 June 14**

Photographer: Long, J.D.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note
6” Monolithic. Frame roof and floor burned due to short in electric wiring. Expected to rebuild on walls which were seemingly undamaged by the fire.

Box 65:22 1612a 1612b **Concrete House, P.S. Morehead ranch, Sutter 1924 June 14**

Photographer: Long, J.D.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note
6” Monolithic reinforced by 1” dredges cable. Central portion of house 30’ x 30. Ten foot porch about 3 sides. Wood floor and prepared roll roofing in main parts; concrete floor and wood roof framing in porches. House very cool even in hottish weather.

Box 65:22 3194_13194_2 **Adobe House, El Centro, Calif. 1930 December**

Photographer: Long, J.D.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note
$20,000 suburban home of J. Keehn, 1 mi. west of city, erected 1926-27. Has 3’ planting of cactus entirely around footing to avoid swelling of soil under wall foundations when wetted for watering shrubs.

Box 65:22 1790 **Adobe Residence, El Centro 1925 April**

Photographer: Fairbank, J.P. (DeTar)
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note
Imperial Valley Construction. Built by owner 20 yrs. ago. Stood thru severe earthquake; resulting in space shown below wood lintel. Adobes laid in mud on brick foundation. No plaster outside.

Box 65:22 2639 **Farm House, Between Kearney Park and Fresno 1928 February 26**

Photographer: Long, J.D.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note
The architecture of the house and water tower combination is more pleasing than usual.
Box 65:23 2315a 2315b 2315c **Dwellings, Calexico and Mexicali 1927 January 18**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.71 & .711 Dwelling houses

**Scope and Content Note**

With special design for ventilation. (a) A native home in "New Town," Mexicali with "airplane" sleeping porch. (b) A Calexico home with full length louver at ridge. (c) A wood frame residence in Calexico, apparently undamaged by earthquake.

Box 65:23 3196_13196_2 **Houses, El Centro, Calif. 1930 December**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.71 & .711 Dwelling houses

**Scope and Content Note**

Designs suggesting ideas of space planning and arrangement for hot climates.

Box 65:23 506 507 509 **Dwelling Houses undated**

Photographer: Hoffman, A.H.

**Subjects and Indexing Terms**

.71 & .711 Dwelling houses

**Scope and Content Note**

(506) Tank house used as residence.

Box 65:23 5696_15696_25696_3 **Adobe Housing, W.S. Johnson home, Pleasanton; Route 1, Box 57 1945 June 4**

Photographer: Neubauer, L.W.

**Subjects and Indexing Terms**

.71 & .711 Dwelling houses

**Scope and Content Note**

(1) W.S. Johnson home, Pleasanton; adobe brick with emulsified asphalt, cost 15-20 cents per brick size 4 x 12 x 18 made nearby. Photos taken April 19, 1945. (2) Gable end construction, showing fine reinforced concrete lintels. (3) Side wall, with concrete bond-beam and lintels.

Box 65:23 5698_45698_55698_6 **Adobe Construction L.M. Meinzer house, R. 6, Box 8781, Sacto, (out Fair Oaks Blvd.) 1946 April 23**

Photographer: Neubauer, L.W.

**Subjects and Indexing Terms**

.71 & .711 Dwelling houses

**Scope and Content Note**

(4) Combined adobe construction with redwood boards and battens. (5) View of kitchen, with corner window. (6) Front door opening, showing hall and dining area.

Box 65:23 5698_75698_85698_9 **Adobe Construction 1946 April 23**

Photographer: Neubauer, L.W.

**Subjects and Indexing Terms**

.71 & .711 Dwelling houses

**Scope and Content Note**

L.M. Meinzer house, Sacramento. (7) View in dining room, showing interior partition. Walls are all painted white. (8) Back door detail; wood lintels over openings; unfinished floor inside, to be radiant heated. 9. Living room has large East window. Radiant heating pipes over fill insulation; before laying wood floor.
Box 65:23

5698_10  Adobe Construction 1946 April 23

Photographer: Neubauer, L.W.

Subjects and Indexing Terms
.71 & .711 Dwelling houses

Scope and Content Note

(10) Front view of house, nearly complete. Walls protected with white oil paint.

Box 65:23

5699_11 5699_12 5699_13  "Cemadobe" Construction, Santa Rosa, Highway 101 1946 April-May

Photographer: Neubauer, L.W.

Subjects and Indexing Terms
.71 & .711 Dwelling houses

Scope and Content Note

(11) "Cemadobe" construction by Fuller and Holstein's Mission Trail Co., 4 miles south of Santa Rosa on Highway 101. May 18, 1946. (12) Detail of forms in which 10 blocks are made at once. (4"x12"x18"). Cost about 26 1/2 cents per brick. (13) Mud contains as much as 20% Portland cement, and is left a day or 2 before removing forms. Dividers are galvanized iron.

Box 65:23

5699_14 5699_15 5699_16  "Cemadobe" Construction, Santa Rosa, Highway 101 1946 May 18

Photographer: Neubauer, L.W.

Subjects and Indexing Terms
.71 & .711 Dwelling houses

Scope and Content Note

(14) Rear view of complete house, with large window and outdoor grill. (15) Large inside fireplace, containing patent heater and warm air flues. (16) Patio barbecue, attached to main chimney. Grill rods already are loose.

Box 65:24

AE21  Farm Cottage, Mills Ranch at Hamilton, Cal. 1917 June 27

Photographer: Davidson, J.B.

Subjects and Indexing Terms
.71 & .711 Dwelling houses

Scope and Content Note

Foreman's cottage. See trip report no. 41.

Box 65:24

2056  Tile and Brick Residence, Jno. Frohly, 414 So. 8th St. El Centro. 1926 May

Photographer: [J.J.P.I.]

Subjects and Indexing Terms
.71 & .711 Dwelling houses

Scope and Content Note

Hollow tile with brick veneer - lower story frame sleeping quarters on roof. Building stood thru 1914 earthquake.
1093 Part of Buildings on Burbank's Plot in Santa Rosa. 1923 July
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .71 & .711 Dwelling houses

90 Dwelling House, Moore Ranch 1916 June
   Photographer: Davidson, J.B.
   Subjects and Indexing Terms
   .71 & .711 Dwelling houses
   Scope and Content Note
   "The Lounge". Santa Cruz, Calif.

2321a 2321b 2321c 2321d 2321e Chimneys Damaged by Earthquake, Calexico and Mexicali 1927 January 18
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .71 & .711 Dwelling houses
   Scope and Content Note
   Brick chimneys sheared and toppled over. Use of galvanized iron risers to prevent top heavy design.

3158 Farm House, Roscoe Clowe dairy, Stockton 1930 September
   Photographer: Fleming
   Subjects and Indexing Terms
   .71 & .711 Dwelling houses
   Scope and Content Note
   Old house well kept. Grounds nicely planted and cared for.

Farm Houses in Denmark 1923-1924
   Photographer: Voorhies, E.C.
   Subjects and Indexing Terms
   .71 & .711 Dwelling houses
   Scope and Content Note
   Typical, old style Danish farm houses from 130 to 150 years old and still in use. Nos. 1 and 2 are houses of small holders - farmers who till from 8 to 18 acres. (Nos. 3 and 4) Ordinary farmer's homes built apparently of "bindings-work" construction (using a combination of wooden framework and earth for walls.) Note the thatched roofs in all views.

1860a 1860b 1860c Farm Dwellings, M.H. Whittier Date Gardens, Indio, Cal. 1925 June
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .71 & .711 Dwelling houses
   Scope and Content Note
   (a, b) Bunk houses showing use made of double roofs, wide screened porches and trellised vegetation for coolness. Note hot water tank on roof. (c) The "cool room" for sleeping. Has double roof, electric fan and ventilators, sheet iron siding covered with burlap which is continually wetted with a water spray.
Box 65:24 2992 Southern Farm House, Southern Louisiana 1929 July 2
  Photographer: Stirniman, E.J.
  Subjects and Indexing Terms
  .71 & .711 Dwelling houses
  Scope and Content Note
  Farm House (large type). Type of southern farm house quite common in southern Louisiana. Another type (not shown) has the chimney on the outside the roof somewhat higher than the type shown.

Box 65:24 2895 Indian Log House, Grand Canyon, Arizona 1927 November
  Photographer: Stirniman, E.J.
  Subjects and Indexing Terms
  .71 & .711 Dwelling houses
  Scope and Content Note
  An Indian log house constructed at Grand Canyon, Arizona to show methods employed by that particular tribe.

Box 65:25 AE58 Bunk House, on Natomas Ranch near Perkins, Calif. 1917 June 28
  Photographer: Davidson, J.B.
  Subjects and Indexing Terms
  .71 & .711 Dwelling houses
  Scope and Content Note
  Summer bunk house.

Box 65:25 1180 Bunk House, Florence Dobbs Ranch, 7 miles southwest of Arbuckle, California 1923 October 5
  Photographer: Hoffman, A.H.
  Subjects and Indexing Terms
  .71 & .711 Dwelling houses
  Scope and Content Note
  House remodeled into temporary bunk house.

Box 65:25 543 Bunk Houses undated
  Photographer:
  Subjects and Indexing Terms
  .71 & .711 Dwelling houses

Box 65:25 1334 Bunk House, Ranch Bldgs. west of Davis. 1923 Spring
  Photographer: Stirniman, E.J.
  Subjects and Indexing Terms
  .71 & .711 Dwelling houses
  Scope and Content Note
  Adobe house for Mexican Laborer. See trip report no. 41.

Box 65:25 AE 22 Laborer's Cottage, Mills Ranch, Maxwell, Cal. 1917 June 27
  Photographer: Davidson, J.B.
  Subjects and Indexing Terms
  .71 & .711 Dwelling houses
  Scope and Content Note
  Adobe house for Mexican Laborer. See trip report no. 41.
Box 65:25  *AE 19 AE 20  Bunk Houses 1917 June 28*
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note
(AE 19) Bunk house on Natomas Ranch near Nimbus, Cal. (AE 20) Bunk house on Stanford Ranch near Durham, Cal. See trip report no. 41.

Box 65:25  2507a 2507b 2507c 2507d  **House Moving, Davis 1926 September**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note
Moving Zeta Xi House. Note in 1966 this house was located at Russell Blvd and A Streets.

Box 65:25  *AE 17 AE 18  Bunk Houses 1917 June 27*
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note

Box 65:25  689a 689b  **Indian Pueblo, Balboa Park, San Diego 1921 January 1925 May**
Photographer: (a) Stirniman, E.J. (b) Long, J.D.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note

Box 65:25  2439  **Poultry Farm House, Petaluma, California 1927 March 22**
Photographer: Moses, B.D.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note
E.O. Hussey Ranch house.

Box 65:26  2438  **Ranch House 1927 March 24**
Photographer: Moses, B.D.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note
Petaluma District. Typical poultry farm buildings around Petaluma District.

Box 65:26  3327  **Log House, Southeastern Iowa 1931 June**
Photographer: Long, J.D.
Subjects and Indexing Terms
.71 & .711 Dwelling houses
Scope and Content Note
An auto camp cabin.
Log House, Pratt farm, Fredonia, Kan. 1931 July

Photographer: Long, J.D.

Subjects and Indexing Terms
.71 & .711 Dwelling houses

Scope and Content Note
Log Construction. Logs for face of house hewn square.

Stone farm house, east of Salt Lake City, Utah 1931 June

Photographer: Long, J.D.

Subjects and Indexing Terms
.71 & .711 Dwelling houses

Concrete sidewall. Sidewalls of two thickness of Nelson's concrete staves. Some cracks apparent.

Small Shed, Florence Dobbs ranch - 6 miles southwest of Arbuckle 1923

October 5

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.71 & .711 Dwelling houses

Scope and Content Note
Probably meant for bunk house. Note well constructed concrete foundation and floor but very light framing. - Note, alas, good drainage of site into swale in rear.

Open Shed, University Farm, Davis 1920 March

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
.72 & .7201 Buildings for housing farm animals

Scope and Content Note
Concrete floor.
Box 65:26
1357 **Feed lot and corral, Dairy Farm, Dixon Highway - Glide place 1923 May**  
Photographer: Hoffman, A.H. for H.L.B.  
Subjects and Indexing Terms  
.72 & .7201 Buildings for housing farm animals  
Scope and Content Note  
Corral about dairy feed shed. Poor drainage. Condition of corrals after wet weather - Holes 12” to 15” deep.

Box 65:27
1359a 1359b **Feed Lots, University Farm 1923 April**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.72 & .7201 Buildings for housing farm animals  
Scope and Content Note  
Poorly drained lots. Poor drainage. Stock mire about feed bunk.

Box 65:27
1360a 1360b **Feed Lots, University Farm 1923 March**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.72 & .7201 Buildings for housing farm animals  
Scope and Content Note  
Poorly drained corral. Poor drainage. Mucks up in wet weather.

Box 65:27
1354a 1354b 1354c 1354d 1354e **Dairy Cattle Feeding Barn, Glide Ranch. Barn located west of Highway to Dixon at Putah Creek 1923 May**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.72 & .7201 Buildings for housing farm animals  
Scope and Content Note  
Cattle feed rack and hay storage. Note interior views for construction.

Box 65:27
1370 **Farm Sanitation, Irvin Ranch, west of Davis 1923 May 20**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.72 & .7201 Buildings for housing farm animals  
Scope and Content Note  
Concrete dairy corral. 3 in one course. 1 to 6 gravel mix. Good drainage.

Box 65:27
544 570 571 **General Purpose Barn undated**  
Photographer:  
Subjects and Indexing Terms  
.72 & .7201 Buildings for housing farm animals

Box 65:27
1003 1003a 1003b **General Purpose Barns undated**  
Photographer:  
Subjects and Indexing Terms  
.72 & .7201 Buildings for housing farm animals  
Scope and Content Note  
(1003 and 1003A) Roof badly sagged. Bldg. northwest of Davis about 7 miles.
Box 65:27  

2258a 2258b  **Barn, Near Merced 1926 October**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  .72 & .7201 Buildings for housing farm animals  
Scope and Content Note  
Poorly proportioned.

Box 65:27  

1007 545  **General Purpose Barn undated**  
Photographer:  
Subjects and Indexing Terms  .72 & .7201 Buildings for housing farm animals

Box 65:27  

**Concrete Barn, Missouri Valley, Iowa 1917**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  .72 & .7201 Buildings for housing farm animals  
Scope and Content Note  
Bottom is Concrete. Top is wood.

Box 65:27  

no negative  **Log barn - General Purpose, Montana 1919 October**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  .72 & .7201 Buildings for housing farm animals  
Scope and Content Note  
Near Continental Divide. Common type of structure there.

Box 65:28  

716  **Horse Barn, Hopland 1920 April**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  .722 Horse Barns  
Scope and Content Note  
Regent Foster's ranch.

Box 65:28  

AE16  **Horse Barn, Gambrel Roof undated**  
Photographer:  
Subjects and Indexing Terms  .722 Horse Barns

Box 65:28  

2850a 2850b  **Horse and Mule Barn, University Farm 1929 March 10**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  .722 Horse Barns  
Scope and Content Note  
Erected 1928. Cost approximately $9,000.00

Box 65:28  

1329  **Horse Barn, Regent Foster's Ranch. 1921 April**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  .722 Horse Barns
Box 65:28 1114  **Mule Barn Stalls and Feed Racks, Ranch Bldgs., University Farm 1923 April**
Photographer: Long, J.D.
Subjects and Indexing Terms
.722 Horse Barns
Scope and Content Note
Dirt floor.

Box 65:28 AE26 **Mule Shed, On the road to Chicpo 1917 June 28**
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.722 Horse Barns

Box 65:28 3284 **Horse Barn, Fredonia, Kansas 1931 July**
Photographer: Long, J.D.
Subjects and Indexing Terms
.722 Horse Barns
Scope and Content Note
Brick barn with one end for ground floor hay storage. Brick silos with water tank on top.

Box 65:28 572 573 **Horse Stalls, University Farm undated**
Photographer:
Subjects and Indexing Terms
.722 Horse Barns

Box 65:28 1864 **Combined horse barn and machinery shed, San Diego County Farm, Santee, California 1925 June**
Photographer: Long, J.D.
Subjects and Indexing Terms
.722 Horse Barns
Scope and Content Note
Evidently planned for enlarging horse barn. Note unnecessary ventilator placed over machinery shed.

Box 65:28 none **Sawdust Concrete floors, Albert H. Forsyth dairy, Medford, N.J. 1933**
Photographer: Haswell, John R.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
"The floor was installed in 1921, about 2" thick over a sand and stone concrete base. Nine parts of reasonably dry sawdust are mixed with seven parts of cement. No sand is used but a lot of water is required. It is put on immediately after the first layer is struck off and allowed to set in two weeks. After a month you can drive over it. The bedding is peanut hulls. The floor is not supposed to save bedding but makes the cows "more contented" and saves swollen joints. There are lots of barns so equipped around Mt. Holly and some in Pennsylvania."
Box 65:29

4016 Hay and Grain feeding Plant (Beef cattle), W.J. Hole, La Sierra Rancho, Arlington 1936 July 31

Photographer: McBirney, S.W. for Fairbank, J.P.

Subjects and Indexing Terms
.723 Dairy cattle barns

Scope and Content Note
Hay Grinder. 36" Roberts Mill, direct connecter to 100 H.P. motor. Feed 40" wide, 42' long. Ground grain is elevated into hay feeder for mixing.

Box 65:29

3927 Straining Platform, J.E. Avila dairy, Alvarado 1935 May 28

Photographer: Long, J.D.

Subjects and Indexing Terms
.723 Dairy cattle barns

Scope and Content Note
See trip report #33. Open, but well protected platform on windward side. Note conveniently located wash basin.

Box 65:29

3928 Dairy Structures, Morris Dairy, Gridley 1935 May 29

Photographer: Long, J.D.

Subjects and Indexing Terms
.723 Dairy cattle barns

Scope and Content Note
See trip report #34. Pleasing native rock exterior, but poorly finished interior.

Box 65:29

3929a 3929b Dairy Cattle Structure, Frank Cordoza Dairy, Centerville 1935 May 28

Photographer: Long, J.D.

Subjects and Indexing Terms
.723 Dairy cattle barns

Scope and Content Note
See trip Report 33. (a) General View showing wooden corral fencing, feed barn, milk house and milking barn. (b) Interior view of hay loft type feed barn with mangers along outside wall. Note ventilation space under manger.

Box 65:29

3930a 3930b Dairy Structures, Joe Rogers dairy, Centerville 1935 May 28

Photographer: Long, J.D.

Subjects and Indexing Terms
.723 Dairy cattle barns

Scope and Content Note
See trip Report 33. (a) Front view of 2-string barn and milkhouse just completed. (b) Poor design of sedimentation.

Box 65:29

Dairy Structures, J.L. Lane dairy, Santa Cruz 1935

Photographer: Owner

Subjects and Indexing Terms
.723 Dairy cattle barns

Scope and Content Note
"Very satisfactory" new feeding barn from U.C. plan. Location for milking barn on side hill with considerable excavation and retaining wall, in order to conserve limited acreage in valley for crop production. Sewage screen chamber to be installed.
Dairy Cattle Corral Shelter, University Farm 1923 May
Photographer: Hoffman, A.H. for H.L.B.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Gen. View.

Shelter Shed and feed racks for dairy cattle corrals, Anderson - Rouell Ranch, Lipton. 1924 October 20
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Used for young bulls.

Dairy Barn, Clay, California 1917 April
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Milk house included. Under Construction.

Dairy Cattle Barn, Redlands 1921 March
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Designed for hay storage utility rather than for looks.

Dairy Barn and layout, J.E. Baxter ranch, Durham Land Colony 1924 October 16
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Present milking barn to be converted into feeding barn. Note high sidewall of concrete under barn and small openings in lieu of windows. Concrete water trough and paved area. A standard milking barn (C-28) is planned to be erected at right, behind silos. Layout sketch of ranch buildings provided Baxter.

Dairy Cattle Barn, Near Calexico, Imperial Valley 1921 February
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Open air except west. Bars set east and west.
| Box 65:30 | Unnumbered (no neg.) **Dairy Cattle Barn, Colfax, WV 1919 July**  
| | Photographer: Stirniman, E.J.  
| | Subjects and Indexing Terms  
| | .723 Dairy cattle barns |

| Box 65:30 | 1122 **Cow Stanchion, Dairy 2 mi. of Sebastopol on Santa Clara Road. 1923 July**  
| | Photographer: Stirniman, E.J.  
| | Subjects and Indexing Terms  
| | .723 Dairy cattle barns  
| | Scope and Content Note  
| | Hay in center, 4 ft. feed alley, 3 ft. wood manger. Note open space under manger for collecting hay and refuse. |

| Box 65:30 | 2863a 2863b 2863c **Feed and Shelter, J.C. Steele Ranch undated**  
| | Photographer:  
| | Subjects and Indexing Terms  
| | .723 Dairy cattle barns |

| Box 65:30 | 991 **Small Individual Calf pens and shelters, Glenwood Stock Farm, Riverside 1924 October 23**  
| | Photographer: Long, J.D.  
| | Subjects and Indexing Terms  
| | .723 Dairy cattle barns  
| | Scope and Content Note  
| | Trip report #9 |

| Box 65:30 | 985 **Milking Barn, Mercantile Trust Co. Model dairies Unit 1, Colusa 1924 October 17**  
| | Photographer: Long, J.D. (see trip report #8)  
| | Subjects and Indexing Terms  
| | .723 Dairy cattle barns  
| | Scope and Content Note  
| | With hay in the center. This barn utilized for cream production. Milk house located 100 ft from corral at left. |

| Box 65:30 | 1328a 1328b 1328c **Milking Barn and Shelter Shed, Regent Foster’s Ranch 1923 April**  
| | Photographer: Stirniman, E.J.  
| | Subjects and Indexing Terms  
| | .723 Dairy cattle barns  
| | Scope and Content Note  
| | Note covered area way leading from shelter sheds to milking barn. |

| Box 65:31 | 1003 1003a **Dairy Barn, Northwest Davis 1920**  
| | Photographer: Hoffman, A.H.  
| | Subjects and Indexing Terms  
| | .723 Dairy cattle barns  
| | Scope and Content Note  
| | Showing poor design, inadequate strength of roof members. |

| Box 65:31 | 3193i **Dairy Buildings, Howard Farnsworth Dairy, El Centro, Calif. 1930 December**  
| | Photographer: Long, J.D.  
| | Subjects and Indexing Terms  
| | .723 Dairy cattle barns |
Dairy Feed Barn, R.W. Morehead, Sutter 1924 June 14
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
102' x 64' Hay in center barn. To have 16' shed additional on either side in new dairy layout. In plan of layout in experiment station record 396-m. Note silo in background.

Milking Barn, To west of highway south of Lincoln 1924 May
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Constructed of clay tile. Note absence of windows or ventilation louvres and galvanized iron roof.

Milking Barn, Lodi, California 1929 April
Photographer: Kaiser (Portland Cement Association)
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Under construction. Designed by H.L. Belton of the Agricultural Engineering Division. Concrete work by Jules Perrin.

Milking Barn, Dairy ranch by Highway to Guadalupe, Santa Barbara, Ca. 1924 October 24
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Gable roofed barn, open side walls. Note track for ensilage cart running down feed alley. Track of wood bolted to floor and covered with strap iron. Stanchions bolts top and bottom to wood rails. Note outside walls of 8" concrete wall 4" x 4" wood sill and posts and rails. Trip report #9.

Views on Morris's Ranch, near Woodland, California 1917
Photographer: Fermery, George E.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Calf and Stock Barn. (AE32) is a general view of Morris's Ranch, stock barn extreme left, dairy barn center. Two-story calf barn in foreground.

Dairy Cattle Barns, 3 mi. south of Knights landing on Woodland Hwy. 1924 November
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Morris Bros., Knights Landing. Showing milking barn in foreground, dry stock and calf barn beyond and feed and shelter barn under construction in left background. Grain and concentrated feed storage at end of milking barn. Silos behind grain storage barn.
Box 65:32 3034_13034_23034_33034_4 **Dairy Cattle Barns, Wackerman Ranch. undated**

Photographer: Belton

Subjects and Indexing Terms
- .723 Dairy cattle barns

Scope and Content Note
(1) South end Wackerman milk house. (2) West side- Milk house and milking barn 6 ft. passage between the two. (3) East View - Shelter and Feed Barn behind trees. (4) West side milking barn north end showing feed room and entrance door for cows to enter.

Box 65:32 3034_53034_63034_73034_83034_9 **Dairy Cattle Barns, Wackerman Ranch undated**

Photographer: Belton

Subjects and Indexing Terms
- .723 Dairy cattle barns

Scope and Content Note
(5 and 6) Interior views taken from south door in #2. North studded wall is south wall of feed room. (7) North end - east side feed and shelter barn. (8) South end - feed and shelter barn. (9) Interior view stanchion and shelter shed.

Box 65:32 1872 **Dairy Cattle Barns, San Diego Co. Farms, Santee, Cal. 1925 June**

Photographer: (a) Long, J.D. (b-c) Courtney Walter Dupee, Riverside

Subjects and Indexing Terms
- .723 Dairy cattle barns

Scope and Content Note
Jamesway equipment and design. (a,b) Feed and shelter shed. Note manger for feeding hay from driveway. (c) Milking and test barns. See other cards for panoramic view of layout and dairy buildings later erected by Mr. Dupee at Riverside.

Box 65:32 1014 **Dairy Barn Equipment undated**

Photographer: Long, J.D.

Subjects and Indexing Terms
- .723 Dairy cattle barns

Box 65:32 3105a 3105b **Dairy Barns, Vaca dairy, Elmira 1930 July**

Photographer: Long, J.D.

Subjects and Indexing Terms
- .723 Dairy cattle barns

Scope and Content Note
(a) Concreted holding corral in foreground, feed room at end of milking barn. (b) Open shed to shelter cows, open along back to feed green hay. Dirt floor in shed, corral concreted with a pumice stone aggregate used in mix.

Box 65:32 3191_13191_2 **Milking barn and hay storage, Sinclair Dairy, Calipatria 1930 December**

Photographer: Long, J.D.

Subjects and Indexing Terms
- .723 Dairy cattle barns

Scope and Content Note
Note roof construction and design of manger and stanchion to leave floor clear for cleaning.
Box 65:32 3146 Dairy Barns 1930 September
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Small "walk-through" barn and milk house on Noel Negley dairy, Escalon; unit barn after U.C. plan 104 on Frederick Kenny dairy, Murphys Calaveras County.

Box 65:32 3128 Dairy Barns, Noel Negley ranch, Escalon 1930 July
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
100 ton wood hoop silo eight years old cost $250.00, old barn used for feed and shelter, new barn and milk house farm with 6 stalls of "releaser" milk type.

Box 65:32 2942 Inside of Milk Barn, Wallace Trust Estate, Fresno 1929 May
Photographer: Moses, B.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Milk 50 cows and sells Grade A milk in bulk.

Box 65:32 3192 31192 2 Dairy Barns, Haverkorst Dairy, El Centro 1930 December
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Milking barn and milk house planned by Div. of Agricultural Engineering. Milkhouses remodelled to provide additional space on either side for sterilizer and refrigeration machine and brine box.

Box 65:33 3230a 3230b Milking Barn, W.H. Markley ranch, Denair 1931 March
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Remodeled Poultry House. Chickens were not paying? and were too close to residence; son became interested in dairy cattle. 12' x 16' milk house and 6' x 20' granary took one end, milk house floor built up 6" to secure drainage. Sloped gutter placed in other end and 14 stanchions. Cost: carpenter $100.00, concrete, $35.00.

Box 65:33 3229a 3229b Dairy layout, Decker Bros. Dairy, Turlock 1931 March
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
3151 Dairy Cattle Barns, Biaggi and Storanta dairy, Tracy 1930 September 26
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .723 Dairy cattle barns
   Scope and Content Note
   Hay barn, City of Oakland milking barn and milk house, 30' concrete corral and hay and
   shelter barn. Milking barn cost $2600 (1927) and milk house $900.00. Note clean
   premises, cattle guard and gate, and gas pump near gate.

1705a 1705b Milking Barn - Milk House and Water Tank, One mile to West of highway,
10 mi north of Colusa 1924 October 17
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .723 Dairy cattle barns
   Scope and Content Note
   Unit #3 of model dairies erected by Mercantile Trust Co., A.O. [Glover - Supt ]. A monster
   feeding barn was being erected with this unit to care for a 200 cow herd. Trip report #8

1327a 1327b Dairy Cattle Sheds, Regent Fosters Ranch, Hopland 1921 April
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .723 Dairy cattle barns
   Scope and Content Note
   Shelter Sheds.

1129 Dairy Farm Layout 1923 July
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .723 Dairy cattle barns
   Scope and Content Note
   Showing end of feed barn, silo milking barn and milk house (connecting alleyway).

982 Milking Barn - Standard Plan C-28 1924 October 17
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .723 Dairy cattle barns
   Scope and Content Note
   Note: R.L.M. Standard house reflector lighting units and wooden window catches swing
   from rafters to hold windows hinged at plate. See trip report #8

1700a 1700b Milking Barn - Milk House and Tank House, Mercantile Trust Co, Model
Dairies, Colusa 1924 October 17
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .723 Dairy cattle barns
   Scope and Content Note
   Showing layout during construction and completed. Completed barn is in unit 2 of dairies
   being erected and barn under construction is of almost identical design erected as unit 3.
   Trip report #8
Dairy Barn, Dixon, California 1915
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Whitacre Ranch.

Dairy Barns 1925 May
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
(a) Feed and shelter barn J.P. Raitt Dairy, Santa Ana, Cal. (b) Milking barn with irrigation pumping and tank house at rear end.

Dairy Barn Equipment, El Centro 1951 February
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Imperial Valley milking barn. Feeding fence and water trough.

Dairy Barns, Senator Bogg's ranch, Stockton 1930 September
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note

Dairy Cattle Shelter, Nortbridge dairy, Banta 1930 September
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Roof salvaged from old hay barn and set on posts.

Man escape from bull pen, La Lomita Ranch, Lockford, California 1930 September
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
A broomed concrete surface - is not slippery.

Dairy Barn Floor, Simas Dairy, Stockton 1930 September
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
A broomed concrete surface - is not slippery.
3149 Dairy Barns, San Joaquin County 1930 September
Photographer: Long, J.D. and Fleming
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
"City of Oakland" layout. Two large photos with haystack on John Simas dairy, Banta; end exterior. Pedro dairy, Tracy; concrete corrall and water tank and barn interior at Biaggi and Storanata dairy, Tracy.

3148 Dairy Structures, Roscoe Cloive dairy, Stockton 1930 September
Photographer: Fleming
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Two string barn ceiled inside, windows pivoted at center and operated in gangs. Octagonal silos of wood (homemade). Structures erected in 1916.

736 738 Dairy Barn Equipment undated
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Erected 1924 -at P.S. and R.L. Morehead dairy - Sutter City. (a) W. side of milking house and milkhouse showing drive between and side wall of milking barn closed tight. Top of silo and feed barn show over ridge. Roof of milking barn of galvanized iron; shingles over milk house. (b) E. silo of milking barn showing 2 side panels opened. (c) All concrete work for barn and milkhouse was poured with small outfit shown in foreground. (d) W. side of barn looking toward milkhouse shows pipe posts above concrete side wall to plate. Milking machine in small room just beyond far wall. See trip report #8.

3147 Dairy Structures, San Joaquin Counties 1930 September
Photographer: Fleming
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Large shelter barn and tile roofed milk house on Fleishhacker ranch, Ripon; shelter barn with mangers on Gundred and Hoff dairy, Lodi, cost $3000.00.

994 Milking barn and Milkhouse, Glenwood Stock Farm, Riverside 1924 October 23
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Gainesway system for 12 cows at a time. Concreted holding corrall in foreground. Milkhouse at far end. See trip report #9.
Box 65:35  983 Dairy Barn layout and Feed barn, on old rice land 10 mi. north of Colusa 1924 October 17
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Unit #2 Model dairy ranches erected by Merc. Trust Co. Colusa in 1924. This ranch just put into production with Mr. M.S. Barnes and son in charge. All corrals and eaves heavily graveled. Note watering through in the corral. See trip report #8

Box 65:35  1137 1138 Barns, Salinas Valley undated
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
(1138) Cow Barn with hay in center. (1137) Saw Tooth type cow Barn. 4 rows of cows in 3 units. 60-80 cows capacity

Box 65:35  1847a 1847b 1847c 1847d Milking Barn and Milk House, Baxter Dairy, Durham, Calif. 1925 May 8
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Side walls of monolithic concrete. Pictures taken on day of visit of Agricultural Extension traveling conference and before structure was in use. Cost of 30 cow barn equipped and milk house #3640.00.

Box 65:35  1352a 1352b 1352c 1352d Crates and Chutes, Ranch 3 miles south on Dixon Highway. 1923 August 15
Photographer: Hoffman, A.H. for H.L.B.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Breeding crate - Bull Pen. Breeding rack so designed and used on plan - B-b-a.

Box 65:35  1873a 1873b 1873c Dairy Shelter and Feed Barn, Baxter Dairy, Durham, California 1925 May 8
Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
New and remodeled construction. (a) New feed and shelter barn for bull and milking herd, (b,c) old milking barn remodeled into shelter and feed barn for team of horses, calves and dry stock.
Box 65:35  3102a 3102b  Dairy Cattle Shelter Barn and Concreted Corrall, State Hospital, Stockton 1930 June

Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Shelter barn has panel sidewalls, hinged at top to swing up.

Box 65:36  1694  Dairy Cattle layout, Anderson - Routt Ranch, Tipton 1924 October 20

Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Dairy Demonstration Day.

Box 65:36  3100a 3100b  Milking Barn, Eldon Koontz ranch, Turlock 1930 June

Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Concrete sidewall. Nelson, Turlock, contractor. Built of pre-cast concrete studs 5 ft. o.c. and concrete stave fields walls.

Box 65:36  3269a 3269b 3269c  Dairy Cattle Structure, La Motte Dairy, Stockton undated

Photographer: Belton, H.L.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
(a) Milk house. (b) Feed and shelter shed. (c) Bull barn and corrals.

Box 65:36  3093  Concrete corral and shelter barn, State Hospital, Stockton 1930 June

Photographer: Long, J.D.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Four inch concrete slab reinforced steel mesh.

Box 65:36  3173  Dairy Barn Project, Stockton, Calif. undated

Photographer: Belton, H.L.
Subjects and Indexing Terms
.723 Dairy cattle barns
Design suitable to So. Calif. Erected 1919(?) at cost of $5000 complete, including all equipment. Feed storage 18' x 24' milking barn with 20 Jamesway stanchions, concrete manger, floor and sidewall; milk house 10' from end of milking barn, two rooms, screened all around with roll curtains, and containing ice box, separator, cooler, gas boiler, sterilizer, tubs and pipe drain rack. Highest bacterial count in 3 years of operating was 700. Dayout sheltered by groves of eucalyptus trees. Milking herd run in open corrals, feed and shelter shed (d) used for bulls, calves and show stock only.

"Walk-thru" type. Erected for 1930 fair by county association of retail material dealers. Bore placard that design was approved by Farm Bureau and U.C. Extension Services. Had several faults in design.

"Walk-through" barn. Poorly arranged between milk house and old milking barn. Steps lead to straining platform.

Tulsa silo is shown.
Box 65:37

3320  **Calf Barn, Golden State Milk Products Farm, Antioch 1931 May**

Photographer: Long, J.D.

Subjects and Indexing Terms

.723 Dairy cattle barns

Scope and Content Note

Well designed and built for cleanliness and maximum of light. Feed room with condensed gas fired sterilizer for feed pails. (c) Field shed for older calves.

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Box 65:37

AE 78 AE 79  **Dairy Barn, Whitacre Ranch, Dixon, Calif. 1916**

Photographer: Davidson, J.B.

Subjects and Indexing Terms

.723 Dairy cattle barns

Scope and Content Note

Interior showing stanchions.

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Box 65:37

3324  **Milking barn and milk house, Chris Nixon, Petaluma 1931 July**

Photographer: Long, J.D.

Subjects and Indexing Terms

.723 Dairy cattle barns

Scope and Content Note

8-cow walk-thru milking barn after plan by Golden State Milk Products Co.

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Box 65:37

995a 995b  **Milking Barns, Jersey Jubilee Farm 1924 October 23**

Photographer: Long, J.D.

Subjects and Indexing Terms

.723 Dairy cattle barns

Scope and Content Note

(a) Interior of one of three milking barns La Lomita Jersey Farm, Ferdinand R. Bain, owner, Palms, showing Hunt, Helm and Farris Co., individual stanchions. (b) Milking barn at Eastmont Jersey Farm, El Monte. Note concrete side wall which has been heightened by 1" x 12" plank and opening above. See trip report #9

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Box 65:37

1610a 1610b  **Dairy Barns, A.W. Morris and Son Ranch, Knights Landing 1924 June 14**

Photographer: Long, J.D.

Subjects and Indexing Terms

.723 Dairy cattle barns

Scope and Content Note

Modification of U.C. Plan C-28. Concrete floor and sidewalls to roof; G.I. roofing, 2" x 6" rafters; angle posts and metal stanchions. Note use of iron rod cross-ties wood panels with sash to be hung in openings during stormy weather.

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Box 65:37

1343a 1343b 1343c  **Buildings for Farm Animals, University Farm 1922 August**

Photographer: Hoffman, A.H. for H.L. Benton

Subjects and Indexing Terms

.723 Dairy cattle barns

Scope and Content Note

Dairy Cattle shelter shed. Shelter shed over corral to hold stock under wet weather and shelter in summer.

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Box 65:37

AE 91  **Dairy Barn, Dixon - Calif. 1915**

Photographer: Davidson, J.B.

Subjects and Indexing Terms

.723 Dairy cattle barns
Box 65:37

3541 Walk-thru milking stalls 1931 July
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .723 Dairy cattle barns
   Scope and Content Note
   1 1/2 " pipe and wood construction. Net opening width at gate 26 1/2 ". A minimum width
   for Jerseys heavy with calf.

Box 65:37

3540 Dairy Shelter Shed, Cottage Grove Dairy, Arcata 1932 March
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .723 Dairy cattle barns
   Scope and Content Note
   Shed 20 feet deep, forms closed square around one end of milking barn. Wood plank
   corral 4 ft. above ground.

Box 65:37

3231 3232 3233 Asphalt Dairy Floors, University Farm, Davis, Calif. 1931 April
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .723 Dairy cattle barns
   Scope and Content Note
   "Cut-back asphalt". (a) shows condition of concrete floor, holes drilled in surface to avoid
   slipping. (b) spreading the asphalt, edges hand-tamped. (c,d,e) - compacting with a 3-ton
   roller, finish thickness about 3/4"; (f) - hand-tamping the gutter edges and painting with
   "Bifunnels".

Box 65:38

3543a 3543b Dairy Barn Pavement, Roy Gill Dairy, Dixon 1931 October 30
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .723 Dairy cattle barns
   Scope and Content Note
   Open type asphalt concrete ("cut back") and thin surface coat to fill voids. Basalt Rock
   Co. Napa, contractor. For detailed information see Experiment Station Project 861.

Box 65:38

3270a 3270c Asphalt Floors, University Farm, Davis, Calif. 1931 April
   Photographer: Westton, E.W.
   Subjects and Indexing Terms
   .723 Dairy cattle barns
   Scope and Content Note
   Showing failure of asphaltic concrete topping at stanchion line and along gutter after
   three days use.
Box 65:38  3270b  Asphalt Flooring, University Farm, Davis, Calif. 1931 April
Photographer: E.W.W.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Showing failure of asphaltic concrete along stanchion line in feed barn after three days use.

Box 65:38  Gothic Roof, Agricultural Engineering Dept. State College of Washington undated
Photographer: Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
1/4 size model of 36' Gothic roof made in Farm Bldg. and concrete construction class

Box 65:38  3603  Dairy Structures, University Farm 1932 December 2
Photographer: Weston, E.W. - H.L.B.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note
Mud measurement in corrals. Corral for test cows. Project 861 IV. Dairy cow shelters.

Box 65:38  3604  Dairy Structures, Univ. Farm 1932 December 3
Photographer: Weston, E.W. - H.L.B.
Subjects and Indexing Terms
.723 Dairy cattle barns
Scope and Content Note

Box 65:38  3501  Dairy Buildings, El Centro, Haverhorst Dairy 1932 March 2
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.7231 Milking barns
Scope and Content Note
Milking Barn Floor. Broomed surface.

Box 65:38  474a 474b  Stanchions for Milking Goats, University Farm 1921 October
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.7231 Milking barns
Scope and Content Note
10 cow barn with milk room. Milking 16 cows, 60 goats milk per day. One man milks by machine. Barn designed by H.J. Belton. Servel milk cooling system.
| Box 65:38 | 1090 | **Milking Barn Stanchion, Jersey Dairy - 3 miles outside of Santa Rosa 1923 July**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
Note chain for tying cows and hinged top board on manger. Floor of stanchion of wood, litter alley of concrete. Note hinged partitions and fastener to permit cows to walk to door on wood floor. |
| Box 65:39 | 2715 | **Milking Barn 1928 October 4**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
(a) Interior showing 15 stanchions on one side, (b) Exterior milk room foreground milking barn behind - sewage pump in background. 60 cows - 175 gallons of milk per day. |
| Box 65:39 | 475a 475b | **Stanchions for Milking Goats, University Farm 1921 October**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
Concrete forms. (a) South end of milking barn. (b) West side, showing north end milking barn and milking house. |
| Box 65:39 | 2847a 2847b | **Milking Barn, J.C. Steele Ranch 1929 April**  
Photographer: H.L.B.  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
Concrete forms. (a) South end of milking barn. (b) West side, showing north end milking barn and milking house. |
| Box 65:39 | 1331 | **Milking Barn undated**  
Photographer:  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
Concrete Floor. Note extra wide gutter and sill laid directly on floor. |
| Box 65:39 | 2740 | **Milk Barns and Milk House, G. Jordon Ranch, Woodland 1928 October**  
Photographer: Lavernetti, J.R.  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
One man milking 40 cows by machine. 80 gals. milk per day. Barn holds 50 cows. Frigidaire milk cooling system. |
| Box 65:39 | 2945 2946 | **Inside of Milking Barn, Morton Dairy, Modesto 1929 May**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
Milk barn and house. Milks 25 cows and sells bottled milk. Barn capable of holding 12 cows at a time. |
| Box 65:39 | 1104 | **Milking Barn, T.L. Rancy Ranch - 2 miles north Davis 1923 August**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
Hay in center type of barn. No feedway between manger and hay storage. Note concrete ledge under manger, plastered sidewall window ventilating shields and hose for flushing hanging on wall. Also note milking machine pipe installation and stanchion fastenings. |
| Box 65:39 | 1608a 1608b 1608c | **Milking Barn and Milking House, A.W. Morris and Sons, Knights Landing 1924 June**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
Milking Barn similar to U.C. Plan #C.28. Milking barn has concrete floor and side wall, g.i. pipe stanchions, steel column roof support and angle iron braces, 2" x 6" rafters and g.i. roofing milk house of cement block; not completed. Picture on back taken at later date after old farm in rear had been removed. |
| Box 65:39 | 110 113 | **Bent Rafter, Milking Barn, University Farm undated**  
Photographer:  
Subjects and Indexing Terms  
.7231 Milking barns |
| Box 65:39 | 1330 | **Barn Conveniences, Near Hollister, San Benito 1923 May**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
Note manner in which floor is roughewed and concrete and T. & G. sidewall. |
| Box 65:40 | 1116a 1116b | **Milking Barn, Floor of Concrete 1923 April**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
Note manner in which floor is roughewed and concrete and T. & G. sidewall. |
| Box 65:40 | 3494 | **Dairy Buildings, Montecito, Rancho San Carlos 1932 March 8**  
Photographer: Fairbank, J.P.  
Subjects and Indexing Terms  
.7231 Milking barns  
Scope and Content Note  
Milking barn (rear). Concrete manure box just below grain room. Liquids are piped out into pipe lines in corral and into sub-surface drainage. |
Box 65:40 3887 Milking barn and attached milk house, near Columbia, Mo. 1933 July
Photographer: Long, J.D.
Subjects and Indexing Terms
.7231 Milking barns
Scope and Content Note
Showing "spread of influence". A 6-stall barn and attached milkhouse adopted from Calif. Plan.

Box 65:40 3498 Dairy Buildings, Montecito, Rancho San Carlos 1932 March 8
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.7231 Milking barns
Scope and Content Note
Boiler room. Lower center structure with ventilators is for refrigeration machine.

Box 65:40 3499 Dairy Buildings, Montecito, Rancho San Carlos 1932 March 8
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.7231 Milking barns
Scope and Content Note
Cold Room. Room in white tile inside and out. Small compartment is shown with door open. Large door made special, porcelain, both sides, cost about $300 per door.

Box 65:40 3497 Dairy Buildings, Montecito, Rancho San Carlos 1932 March 8
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.7231 Milking barns
Scope and Content Note
Milking Barns and Milk House. Layout is on side hill, milkhouse at right.

Box 65:40 3493 Dairy Building, Montecito, Rancho San Carlos 1932 March 8
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.7231 Milking barns
Scope and Content Note
Interior of milking barns. Walls and ceiling are white tile. Floor is concrete broomed surface. Grain room at right.

Box 65:40 3496 Dairy Buildings, Montecito, Rancho San Carlos 1932 March 8
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.7231 Milking barns
Scope and Content Note
Milking Barn. Tile roof of milk house at extreme right. Note wash basin on wall at right.
Box 65:40

3492 Dairy Buildings, Montecito, Rancho San Carlos 1932 March 8
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.7231 Milking barns
Scope and Content Note

Box 65:40

3500 Dairy Building, El Centro, Haverhorst Dairy 1932 March 2
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.7231 Milking barns
Scope and Content Note
Milking Barn. Barn designed by Belton and Long as a demonstration layout. Barn has proved quite satisfactory. Owner plans to extend it - prefers 3'4" or 3'6" stanchions spacing instead of 3'. Hand milking.

Box 65:41

5640 Steer Feeding, C.J. Wampler, Woodland 1943 August 19
Photographer: Hoffman, A.H. for H.L.B.
Subjects and Indexing Terms
.724 Beef cattle barns
Scope and Content Note
Mangus, ground feed from beef truck.

Box 65:41

139 Steer Feeding Barn, Iowa undated
Photographer:
Subjects and Indexing Terms
.724 Beef cattle barns

Box 65:41

141 Steer Feeding Barn undated
Photographer:
Subjects and Indexing Terms
.724 Beef cattle barns

Box 65:41

150 Steer Feeding Barn, Iowa undated
Photographer:
Subjects and Indexing Terms
.724 Beef cattle barns

Box 65:41

138 Steer Feeding Barn, Iowa undated
Photographer:
Subjects and Indexing Terms
.724 Beef cattle barns
Box 65:41 AE 128  **Cattle Shed, Hopland, Calif. 1917 May**
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.724 Beef cattle barns
Scope and Content Note
Foster Ranch.

Box 65:41 140 **Steer Feeding Barn, Iowa undated**
Photographer:
Subjects and Indexing Terms
.724 Beef cattle barns

Box 65:42 3306a 3306b **Cattle Barns, Hayford Place, Eldorado, Kansas [1931 July]**
Photographer: Long, J.D.
Subjects and Indexing Terms
.724 Beef cattle barns
Scope and Content Note
(a) Maternity and calf barn. (b) Bull barn. Steel truss roof with ridge ventilation, corrugated iron roofing, tile sidewalls.

Box 65:42 3307a 3307b **Cattle Sheds, Hayford Place, Eldorado, Kansas 1931 July**
Photographer: Long, J.D.
Subjects and Indexing Terms
.724 Beef cattle barns
Scope and Content Note
(a) Open shed of design used on farm. Others variously built of concrete block, brick and wood. (b) Wood shed for young stock with burlap sack curtains to minimize fly nuisance.

Box 65:42 3283 **Cattle Barn, Pratt Farm, Fredonia, Kansas 1931 July**
Photographer: Long, J.D.
Subjects and Indexing Terms
.724 Beef cattle barns
Scope and Content Note
Brick construction. Central hay mow, overhead grain bin. Brick water trough.

Box 65:42 3282 **Cattle Sheds, Sui-a-bar Farm, Kansas City, Mo. 1931 June**
Photographer: Long, J.D.
Subjects and Indexing Terms
.724 Beef cattle barns
Scope and Content Note
One of eight units. Sheds have box stalls opening onto central court, a walk-way and baled hay storage.

Box 65:42 4017a 4017b **Hay and Feeding plant Beef cattle, N.J. Hale, La Sierra Rancho, Arlington 1936 July 31**
Photographer: S.W. McBriney for Fairbanks, J.P.
Subjects and Indexing Terms
.724 Beef cattle barns
Scope and Content Note
(a) Exterior of barn and storage. Barn 153' long feeds 150 to 175 heads. (b) Interior. Feed 6'4" wide, 6' long, 18" deep. Filled by spout in upper foreground. Silos at other end.
Box 65:42

3153 Sheep Barn, La Lomita ranch, Lockford 1930 September
Photographer: Long, J.D.
Subjects and Indexing Terms
.725 Sheep barns
Scope and Content Note
After U.C. plan C-112.

3538a 3538b Sheep Feeding Shed, 15 miles South of Dixon 1931
Photographer: Long, J.D.
Subjects and Indexing Terms
.725 Sheep barns
Scope and Content Note
Chopped hay storage in center.

Box 65:42

3084a 3084b Sheep Shelter and Chopped Hay Feeder, H.G. Brown Ranch (10 miles south of Dixon) 1930 April 2
Photographer: Long, J.D.
Subjects and Indexing Terms
.725 Sheep barns
Scope and Content Note
10 x 10 x 40 hay storage, 15 ton chopped hay capacity. Cost approx. $150 for material.
400 sheep fed through 1929-30 winter had exceptional condition.

Box 65:42

3163 Movable hog houses, Long ranch, Stockton 1930 September
Photographer: Long, J.D.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Open for summer shade. Note how hogs undermine in loose sandy soil.

Box 65:42

1459 Shelter for Hogs, University Farm 1924 January
Photographer: Long, J.D.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Sun shelter in hog lots. Note lot fence of steel fence parts in background.

Box 65:42

3039 Hog Houses, Straloch Farm, Davis 1929 November
Photographer: Long, J.D.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Shed roof, colony farrowing house of 10 plus and rear ventilating doors. Also shelter shed and sunshade for shorts.

Box 65:43

2646 Hog House, Harrison Ranch, Woodland 1927 February 22
Photographer: Long, J.D.
Subjects and Indexing Terms
.726 Hog houses
Box 65:43

3275a 3275b **Hog Houses, Fox Demonstration Farm, Des Moines, Iowa 1931 June**
Photographer: Long, J.D.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Showing arrangement of individual hog houses, concrete feed floor, canvas sun shade and green pasture lots.

Box 65:43

3277a 3277b **Hog Houses, Southeastern Iowa 1931 June**
Photographer: Long, J.D.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Abandoned hog house monstrosity. Built onto barn in background.

Box 65:43

3326 **Hog Houses, Fox Demonstration Farm, Des Moines, Iowa 1931 June**
Photographer: Long, J.D.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Octagonal houses used for farrowing eight sows.

Box 65:43

AE 88 **Hog House, Santa Rosa, California 1917**
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Exterior view of negative 89.

Box 65:43

AE 89 **Hog House, Santa Rosa, Cal. 1917**
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Metal partition.

Box 65:43

AE 137 **Hog House, Corbell, Calif. 1917**
Photographer:
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Interior - Iowa Type. Built front plans furnished by A.E. Division.

Box 65:43

**Hog Houses undated**
Photographer:
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Movable.
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<th>Box 65:43</th>
<th>126 Hog House, Hopland, Calif. 1917 May</th>
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<td>Photographer: Davidson, J.B.</td>
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<td>.726 Hog houses</td>
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<td>Clay Block.</td>
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<th>Box 65:44</th>
<th>709 722 Hog House, University Farm, Davis 1920 March</th>
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Box 65:44

AE 24 Hog House, Vina Ranch, Calif. 1917 June 28
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Remodeled horse barn for hogs.

Box 65:44

AE 42 Hog House, Near Corbell, Calif. 1917 May 10
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
"Iowa" type. "Iowa" type of hog house built on Corbell Ranch - Corbell, Cal. - See trip report 37.

Box 65:44

566 567 Hog Houses, S.S. Rogers Ranch, Davis. undated
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
And June Acre Farm.

Box 65:44

3040 Two-story hog house, 10 miles east of Sacramento. 1930 January 24
Photographer: Long, J.D.
Subjects and Indexing Terms
.726 Hog houses
Scope and Content Note
Sacramento Hog Company plant feeding restaurant garbage, 2500 hogs kept. One story, gable roof, central alley, house on right is addition.

Box 65:45

Poultry houses and farmstead, State Fair University Exhibit 1922 September
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
Model poultry farm as shown at state fair 1922 by poultry division.

Box 65:45

1084 Poultry Brooder House 1923 July
Photographer: Long, J.D.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note

Box 65:45

775 Ventilation Door (Hen house), El Centro 1921 March
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
Made from old salvaged iron from barn.
| Box 65:45 | 1342a 1342b **9 x 12 Portable Brooder House, Ranch of J. Dryden, Concord. 1923**  
**October 4**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
Houses open under caves but tight otherwise. Note portable fence panel. |
|---|---|
| **Box 65:45** | **Poultry House Construction undated**  
Photographer:  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
Student class work. |
| **Box 65:45** | **AE 29 AE 30 Poultry House, University Farm 1917**  
Photographer: Davidson, J.B.  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
"Knock-Down" Type. Planned by Poultry Division. |
| **Box 65:45** | **AE 104 Poultry Houses, University Farm, Davis, California 1917**  
Photographer: Davidson, J.B.  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
Movable. |
| **Box 65:45** | **AE 105 AE 106 Poultry Houses, University Farm, Davis, Cal. 1917**  
Photographer: Davidson, J.B.  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
"Knock-Down" Type. Planned by Poultry Division. |
| **Box 65:45** | **1323 Brooder House and Yards, Burkes Poultry Ranch near Santa Rosa 1924 April 23**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
For details see Cal. C.R.E.A.. Progress report #3 and #4 Test #11. Note rank growth of weeds in runway. |
| **Box 65:45** | **1322 Brooder House, J. Peterson Ranch - R #1, Box 509 Santa Rosa 1925 April 23**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
Small house for one brooder 16 x 24 room lined with tar paper - 4- 24" x 24" windows and a roof ventilator with gate for ventilator with gate for ventilation. Further details see Moses trip report Apr. 23/25. |
Brooder House, Frisnan ranch near Santa Rosa 1925 April 23
Photographer: Moses, B.D.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
for description see progress Reports #3 and #4 - Cal. C.R.E.A. Tests #7 and 8.

Brooder House, Mr. Schultz ranch - Santa Rosa 1925 April 23
Photographer: Moses, B.D.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
Used for electric brooders. Size rooms - 14 x 16 - N.E. exposure. Total no. chicks per brooder - 900 - Poor ventilation - see progress report #3 and #4. Test #9 and #10 - C.R.E.A.

Brooder House University open front type, Peter Randolph, Santa Rosa 1926 May 20
Photographer: Wood, T.A.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
Brooder Room 18' x 18' - Concrete Floor. University open front type brooder house. Concrete floor, 18' x 18' rooms, 5' dia. brooder, 500 capacity $36.00 per unit. 60' house $600.00.

Poultry Brooder House, Lodi, California 1927 March 14
Photographer: Moses, B.D.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
Poultry brooder house on ranch of Mr. Wilkinson - 4 units electrically heated brooders - Dougherty type.

Poultry House, Cantril, Iowa undated
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
Clay Block. F.F. Silver farm.

Brooder House - University Type, Lawrence Bufford, Santa Rosa 1926 May 20
Photographer: Wood, T.A.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
18'x20' Brooder room, 6' dia. brooder. University type poultry house open front, brooder rooms 18' x 20' with 6' dia. radiant heat type brooder.
Box 65:46  2245  **Brooder House, University Farm 1926 November 5**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.727 Poultry houses  

Box 65:46  2411  **Electric Poultry Brooders 1927 January**  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
Side views of louver showing air circulation. Drawing by T.A. Wood.

Box 65:46  3042  **Brooder House, Nissen Brothers 4 miles north of Fair Oaks. 1930 January 28**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
Six inch concrete sidewall. No sidewall windows. Skylights open by crank at end. Wood floor furnace heated by wood burning furnace in pit near one end.

Box 65:46  2887a 2887b  **Poultry Houses, Kern County 1926 October**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
Small shelters for feeding breeding pens. Frame work of 2” x 3”, roof sheathed, all covered with heavy roofing paper. Pens double width of house either side of row of houses; house openings to pens staggered as to side. Ranch of Fred Brown and Bro. 8 mi. west of Bakersfield.

Box 65:46  2095  **Poultry Structures, Ranch of Mr. Burtonn, High School Ag. teacher, Santa Cruz 1923 October**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
Showing rear of his half monitor house with feed barn at end and ventilating ducts. Small muslin covered structure with roosts as temporary quarters for cockerels.

Box 65:46  1321a 1321b  **Brooder House, Grace Johnson's poultry ranch, Healdsburg 1925 April 23**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.727 Poultry houses  
Scope and Content Note  
1924a 1924b  Poultry Run and Feed Racks, Frisnan’s Poultry Ranch, Santa Rosa 1925 October 14
Photographer: Moses, B.D.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note

Box 65:47
2397  Poultry Brooder House, Arthur Folger’s ranch, Davis. 1927 March 20
Photographer: Moses, B.D.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
Using 3 Lyon Electric Brooders.

Box 65:47
1810  Brooder House, near Cotali on road to Petaluma. 1925 February 20
Photographer: Moses, B.D.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note

Box 65:47
950  Poultry House, Burton (H.S. agr. teacher), Santa Cruz 1923 Summer
Photographer: Long, J.D.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
Modified half-monitor type. Burton is an O.A.C. grad. Note trussed litter carrier and manure box.

Box 65:47
2261a 2261b 2261c  Burned Poultry House, Fred Smith Poultry Ranch, Davis, California 1926 July 9
Photographer: Long, J.D.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
Fire started probably by truck driver hauling feed and throwing cigarette into pile of straw. (a) About 60 ft. of house saved. (b and c) concrete foundation still usable for rebuilt house.

Box 65:47
3042  Five-story "hen hotel", Nissen Bros. Ranch 4 miles north of Fair Oaks 1930 January 28
Photographer: Long, J.D.
Subjects and Indexing Terms
.727 Poultry houses
Scope and Content Note
Five story laying house on course of construction. One story house at left being replaced.

Box 65:47
715 777  Poultry House, Hopland, El Centro 1921 April
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.727 Poultry houses
Box 65:47

1099 **University Type Poultry House, University Farm 1922 October**

- Photographer: Long, J.D.
- Subjects and Indexing Terms: .727 Poultry houses
- Scope and Content Note: Curtain show use of 4 division curtain.

Box 65:47

1685a 1685b **University Type Poultry House, Fred Smith Poultry Ranch, Davis 1924 September 16**

- Photographer: Long, J.D.
- Subjects and Indexing Terms: .727 Poultry houses
- Scope and Content Note: Interior Views of End. Note nests, broody coop and mash feeder on walls leaving floor space entirely free, Note solid door of 1/2" lumber, solid partition up wash of wall between pens, overhead track for feed and litter carrier and smooth tight wall behind and over roosts. Partition door hinges placed on wrong way in order to have door swing 90 degrees either side of partition. Door catch a "U" shaped wire thru door jamb.

Box 65:47

1690a 1690b **Poultry House Interior and Feed Corner, Fred Smith Poultry Ranch, Davis 1924 September**

- Photographer: Long, J.D.
- Subjects and Indexing Terms: .727 Poultry houses
- Scope and Content Note: Completed unit before birds were placed in house. Showing good type of feed carrier. Arm sliding against rail on droppings board replaced later by roller.

Box 65:48

**Bulk Grain Storage, Clewes Dairy, Stockton 1933**

- Photographer: Coke, J.E.
- Subjects and Indexing Terms: .73 Buildings for housing farm products
- Scope and Content Note: Used to handle grain fed on dairy. Milking barn at right, two octagonal wood silos at rear.

Box 65:48

3159 **Bulk grain transfer bin, Ceresa Plains, San Luis Obispo County 1930 Summer**

- Photographer: Winters, J.S.
- Subjects and Indexing Terms: .73 Buildings for housing farm products

Box 65:48

3104 **Grain Storage Bin, Bob Curry ranch, Dixon 1930 May**

- Photographer: Lond, J.D.
- Subjects and Indexing Terms: .73 Buildings for housing farm products
- Scope and Content Note: Wood storage bin erected 1928 at cost $500, capacity 2500 sks. Near end failed due to insufficient ties in second year.
Box 65:48  (none) **Orchard Packing House, Kawamura Ranch Walsh Station, Jackson Road, 6 miles from Perkins 1929 May**

Photographer: Cook, M.E.

**Subjects and Indexing Terms**

.73 Buildings for housing farm products

**Scope and Content Note**

Designed by H. Hayes, friend and Terry Lumber Co. Sacramento. Materials for 30’ x 40’ structures cost approx $300.00.

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Box 65:48  **Equipment for feeding molasses on dairy, Near Newman, California. 1924 October 19**

Photographer: 

**Subjects and Indexing Terms**

.73 Buildings for housing farm products

**Scope and Content Note**

Consisted of large galvanized tank in ground bucket and hoist. Prof. William Regan standing behind hoist.

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Box 65:48  **Grain Storage, Bulk undated**

Photographer: T.J.F.

**Subjects and Indexing Terms**

.73 Buildings for housing farm products

**Scope and Content Note**

64’ high, 20’ diameter, 8 bins. $22000. 56,000 sacks capacity. 1 man operator. 1 to 7 miles from field. The 3-20’ combines 2-3 ton truck and 3 trailers. 2800 sacks per day. 15 H.P. motor runs all. Hopper side - 4 ton brander - cleaner. Clean 15 and ton $2 to $3 when done at base form or terminal.

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Box 65:48  **Farm Elevator, Jake Wassum ranch, Montpellier 1930 June**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.73 Buildings for housing farm products

**Scope and Content Note**

550T crib elevator erected in 1929. Cost - storage bin $2200, total $3500. All bins hopped over bottoms.

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Box 65:48  **Grain elevator dump, Bobb and Traynham elevator, Woodland 1930 July**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.73 Buildings for housing farm products

**Scope and Content Note**

Pneumatic. Dumping a 7 1/2 ton load of barley hauled from Esparto.

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Box 65:48  **Grain Elevator, Catheart and Rouse, Montpellier 1930 June**

Photographer: Long, J.D.

**Subjects and Indexing Terms**

.73 Buildings for housing farm products

**Scope and Content Note**

Hay Storage - Barn Mow Haydrier, Ainscough Dairy, Santa Maria, Calif. 1947 July 23

Photographer: Dobie, J.B.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
View of duct system (retouched and enlarged), close-up of transition pieces, cross view of laterals and ducts and picture of inside of main duct.

Box 65:48 3896a 3896b 3896c Hay Barn, University Farm 1934 July

Photographer: Long, J.D.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
U.C. Plan C-151.

Box 65:48 1378a 1378b 1378c Hay Barns 1921 July

Photographer: Goatley, G.A., Co. Agent
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Poor Example of Framing.

Box 65:48 3041 Hay Barn, Fred Harvey ranch, 4 miles west of Galt 1930 January 24

Photographer: Long, J.D.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Two battered-sides hay barns erected about 1924 at a cost of $800.00 each, Sides battered 24" each to prevent hay pressure dislodging post. Barns 36' x 90'; 4" x 6" posts, 10' o.c. and 20 or 24' high.

Box 65:48 1745 Hay and Shelter Barn for Dairy Cattle, 10 miles North of Colusa 1924 October 17

Photographer: Long, J.D.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Unit #2 of model dairy ranches erected by Merc. Trust Co. Colusa in 1924. See negative number 983 (classification card no. 723) for view of layout.

Box 65:49 1743 Hay and Shelter Barn, West side Dairy - Sacramento - Mr. Archer, leasee 1924 October 29

Photographer: Long, J.D.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Barn satisfactory except that sheds were too narrow (12') and that barn was difficult to feed from when full of hay.
Feed Barn for chopped feed, O.R. McGee Dairy Ranch, Ripon 1928 October 4
Photographer: Moses, B.D.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
150 ton copy barn concrete floor now under construction. Picture also shows hay stacker at work.

Temporary Hay Shelter, Wasco, Kern Co. 1926 October
Photographer: Long, J.D.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Bailed hay covered with fruit drying trays.

Hay Barn and Feed Sheds, Morris Bros. Ranch, Knights Landing 1924 November 6
Photographer: Long, J.D.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Overall dimensions 96' x 108' - 32' purlin-width divided into 32' hay storage and 4-16' sheds for four strings of cows. The 6" x 6" x 32' posts down thru the center of the 6" x 8" posts on the ends of the barn were secured direct from Oregon at $28.00 delivered to Knights Landing.

Hay Barns and Storage, Sleepy Hollow Dairy Sonoma, Calif. 1929 Spring
Photographer: Baade, H.J.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Hay and shelter barns.

Storage Barn, 20 miles south of Davis 1923 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Set up from ground because of flood danger. Structure set up some 14 or 16' above ground because of floods prevalent in "slough" area of delta. Has two floors for holding sheep during flood.

Baled Hay - Barn and Feeding Shed, Napa State Hospital - Napa, Calif. 1923 July
Photographer: Stirniman, J.E.
Subjects and Indexing Terms
.731 Hay barns and storage
Box 65:49

3325 Hay Shelter, Southeastern Iowa 1931 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Pyramid roof raised by means of a jack and supported on poles. Some structures have five poles. These were seen on the majority of farms for a 20 or 30 mile distance along the highway. Locally known as "hay burgs".

Box 65:49

6635 Hay Drying, University Farm, Davis 1947 October
Photographer: Dobie, J.B.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Drying baled hay outdoors without ducts system. Last cutting, in field 9-days, using gasoline engine blower.

Box 65:49

6630 Hay Equipment, Ainscough Haydrier, Santa Maria, Calif. 1947 July
Photographer: Dobie, J.B.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Barn Equipment. Green hay piled 9 ft. deep on drier. Drier in operation.

Box 65:50

6602 Barn Hay Drying, Glenn Barrass Ranch, Covelo, Calif. 1946 June 1
Photographer: Dobie, J.B.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
Inside of unfinished lateral showing Mr. Barrass (a) View of Haydrier Lateral (b,c).

Box 65:50

6603a 6603b Barn Haydrying, Glenn Barrass Ranch, Covelo, Calif. 1946 June
(a) Looking into end of main duct from blower end. (b) Allis-Chalmers Power unit and blower.

Box 65:50

1699 Hay Silo, Anderson-Routt Ranch, Lipton 1924 October 20
Photographer: Long, J.D.
Subjects and Indexing Terms
.731 Hay barns and storage
Scope and Content Note
16' x 30' approx. Octagonal "silo". As handled here hay is first stacked near silo then cut and blown into place. Construction data - (from letter of 12/23/24 from B.M. Anderson to H.L. Belton) Silos octagonal in shape (8-sided), 20' in diameter and 30' high. Horizontal plates every 10' feet of 3 - 2" x 6"s. Corner posts 6" x 6" beveled to angles of sides. Studs 2"x6" spaced 2' o.c. Siding 1 x 6 with 2" openings. Trip report #9.
5637 **400 Bu. Prefab. Plywood Grain Bin, Davis 1943 July 5**
   Photographer: Weston, E.W. for Neubauer, L.W.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms
   Scope and Content Note
   Plan C - 531, 17" x 22". One sent to A.E. in Michigan, for reprint of article in June A.E. See "P" Prefab. Plywood Grain Bin.

**Corn Crib, Fremont, Nebraska 1917**
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms

**Box 65:50 Corn Crib shapes in humid states, Ontario, Canada, New Jersey, New York, Wisconsin 1928 June, July**
   Photographer: Hoffman, A.H.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms
   Scope and Content Note
   The cribs are made very small and much narrower at bottom "to facilitate drying". In many the reverse (?) was much more usual construction as shown. Some use vertical boards outside. The small gables are used for filling.

**Bulk Handling of Grain, Near Willows 1923**
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms
   Scope and Content Note
   Rice Storage. Storage and loading station for bulk rice.

**Grain Storage on Farm, La Lomita ranch Lockeford, Calif. 1930 September**
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms
   Scope and Content Note
   Grain received and discharged over scales under shed. Grain bought and stored in sacks, dumped into bulk bins on second floor with gravity fed to grinder.

**Steel Granaries, C.H. Hopkins, Straloch Farms 1923 December**
   Photographer: Stirniman, E.J. for H.L.B.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms

**Granarie, [University] Farm 1922 May**
   Photographer: Hoffman, A.H. for H.L.B.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms
   Scope and Content Note
   Seed cleaning granarie. Seed elevated to top-passed thru cleaning (?) on each floor. Fumigated in basement.
Box 65:51 2153a 2153b 2153c 2153d 2153e Elevators and Farms Storage, T.A. Kilkenny, Dixon 1925 July
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms
   Scope and Content Note
   (a) Grain piled on tarpaulin for temporary storage. (b) Same. (c,d,e) Loading grain on a temporary storage for shipment.

Box 65:51 2159a 2159b Elevator, Harvester Ranch, Corcoran 1925 July
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms
   Scope and Content Note
   (a,b) Work house and storage. Sheet metal construction.

Box 65:51 3037 Country Elevator at R.R. siding, Dixon 1930 January 23
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms
   Scope and Content Note

Box 65:51 3124 Farm Elevator, R. Curry Ranch, Dixon 1930 May
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms
   Scope and Content Note
   (a) Concrete base for 20' Calco bin. (b) Old wood storage bin, new workhouse, base for steel tank. (c) Using jrg. for punching elevator belt for cups.

Box 65:51 3051a 3051b Bulk Grain Elevator, Grimes, Calif. 1930 January
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms
   Scope and Content Note
   Remodeled warehouse. Wood cribbing used to form bins in old warehouse. High initial cost because of speed demanded in erection. Unsatisfactory because foundations give and permit mixing between bins under crib partitions, and also because of weevil. (a) shows weigh house in foreground.

Box 65:51 2985a 2985b Bulk Grain Elevator, Graino, California 1929 August 6
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .732 Corn cribs, granaries and seed rooms
   Scope and Content Note
   Loading Plant. Private loading and storage plant of Scarlett and Baldwin at Graino, Colusa County. The plant consists of 4 bins and a work house with weighing and cleaning equipment.
3052  **Bulk Grain Elevator, Farnsworth ranch - 5 miles north Colusa 1930 January**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
Eight Calco bins set up 8’ high above ground on wood frame-work, metal covered.

2977a 2977b  **Public Elevator, New Orleans Louisiana 1929 July 3**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
Concrete Elevator. Part of the storage is used for corn which has a rather high moisture content. Approx. 45 of the large bins are wired with thermo-couples. This provides a means of checking the temperature of the bin at a central check room. (a) View of storage bins. (b) The loading out dock taken from top of storage bins.

3323  **Country Elevator, Eastern Colorado plains 1931 July**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
Square, monolithic and concrete construction.

2160  **Elevators, C. Harold Hopkins, Davis 1926 July**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
Farm grain storage and feed house, steel bin construction.

3286  **Country Elevator, Northeastern Colorado 1931 June**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
Sheet steel construction. Appeared to be 50’ high.

2166a 2166b 2166c 2166d 2166e  **Elevators 1925 July**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
(a) Patterson. (b) New unit at Salinas. (c) Montpelier (d) San Lucas. (e) Montpelier

2161a 2161b  **Elevator, H.P. Mohr, Pleasanton 1925 July**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
Privately owned elevator.
Series 1. Index to images 1915-1951

Box 65:52

**Country Grain Elevator, Angiola (5 mi. south of Corcoran) 1929**

Photographer: Mr. Malloy, John R. Gray Co., S.F.

Subjects and Indexing Terms

.732 Corn cribs, granaries and seed rooms

Scope and Content Note

1100 T. capacity; cost $11,800 (machinery cost $3000 included). Owned and operated by Mr. Schmeiser (California Natural Gas & Development Co.) Construction - 2" x 3" - 15" o.c. girders and tie rods. Weigh-in scale some 50' distant. Outside dump and hopper, automatic trip for track. 2 min. time required. to leave scales, dump 3T load and back away.

Box 65:52

**Bulk Grain Elevator, Stuttgart, Arkansas 1929 July 6**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.732 Corn cribs, granaries and seed rooms

Scope and Content Note

Farm Bulk Grain Storage. A bulk rice storage on Mr. R.F. Rogers farm near Stuttgart. Nearly every farm has storage capacity for at least half of their rice crop.

Box 65:52

**Elevator, Hickman, California 1926 July**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.732 Corn cribs, granaries and seed rooms

Scope and Content Note

Elevator leg placed at r.r. siding for loading truck grain.

Box 65:52

**Elevators and Farm Storage, T.A. Kiekenny, Dixon 1919 July**

(a) Elevating grain into farm storage bins. (b) Blower for blowing grain into bins. (c) Farm storage granary and steel bins. (d,e) Loading station on side track.

Box 65:52

**Bulk Grain Elevator, Knights Landing, River Farms Co. 1929 August 6**

(a) A boat loading bin and spout. (b) Reconstructing a bin that failed. (c,d,e,f) Failure due to tight gauge metal used on a side draw discharge. A bin filled with wheat would fall immediately when the draw gates were opened. 18-16-20 gauge metal was used.

Box 65:53

**Elevator, Will Jons, Patterson, California 1925 June**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.732 Corn cribs, granaries and seed rooms

Scope and Content Note

Bulk grain field transfer station.
Series 1. Index to Images 1915-1951

Box 65:53  

2188 Elevator and Farm Storage, C.C. Reeher, Montpelier, California 1926  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
A farm storage that is used for transferring grain from horse drawn equipment to truck for long haul to elevator.

Box 65:53  

Bulk Grain Storage, Pullman, Washington 1925  
Photographer: Johnston, C.C.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
Portable bins. Portable fields bins for bulk grains being moved for lubrication.

Box 65:53  

2157 Elevator, Washington State undated  
Photographer: Reprint  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
Grain transfer bins being moved into field.

Box 65:53  

696a 696c Bulk handling grain, near Willows 1923  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
Grain storage. Bulk rice storage and loading elevator.

Box 65:53  

2164 Elevator, Miller and Lux, Los Banos, California 1925  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
Bulk grain elevated from pit to grinder when received from field.

Box 65:53  

2155a 2155b 2155c 2155d 2155e 2155f 2155g Elevator and Farm Storage, Thaxton Ranch, Grimes, California 1926 July  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms  
Scope and Content Note  
(a and b) Sacking grain at ranch headquarters hauled in bulk from combine. (c,d,e) Loading grain with John Deere elevator into truck from ground storage piles. (f and g) Loading bulk grain in cars thru a beet chute.

Box 65:53  

599 600 Bulk handling of grains, Kilkenny Ranch circa 1921  
Photographer:  
Subjects and Indexing Terms  
.732 Corn cribs, granaries and seed rooms
Box 65:53

436c 436d **Bulk Handling of Grain, Natomas Lands, Sacramento 1921 March 1**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms

.732 Corn cribs, granaries and seed rooms

Scope and Content Note

Moering Bros. outfit. Dump incline ograde at [wharf?]. Trucks run up incline, lock wheels, dump grain and back away. Incline made with Fresno scraper.

Box 65:53

437a 437b 437c **Bulk Handling of Grain, Natomas Lands, Sacramento 1921 March 1**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms

.732 Corn cribs, granaries and seed rooms

Scope and Content Note

Moering Bros. outfit. Grain is dumped into pit at left end of elevator building, brought to elevator by worm conveyor, elevated, run to storage bins, taken by worm conveyor to boat or barge as shown. Old machinery remaining from time of sack handling is utilized. More economical [to] use high dump incline and run grain by gravity barge.

Box 65:54

2156a 2156b **Elevator, Andrew Kaiser, Artois, California 1925 July**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.732 Corn cribs, granaries and seed rooms

Scope and Content Note

(a and b) Privately owned farm elevator and loading station.

Box 65:54

594 **Grain Storage Bulk, Glenn and Hamilton City 1925**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.732 Corn cribs, granaries and seed rooms

Scope and Content Note

(1) Farm storage on the Glenn Ranch. (2) Bulk storage and loading elevator - Mr. A. Kaiser (mail address Airtoye).

Box 65:54

3036a 3036b 3036c **Farm Elevator, Fred Harvey ranch - 4 miles west of Galt. 1930 January 28**

Photographer: Long, J.D.

Subjects and Indexing Terms

.732 Corn cribs, granaries and seed rooms

Scope and Content Note

Two concrete silos 20' 4" x 42' silos transformed to elevators. Cost $3200.00 (a) Elevator side showing cleaning equipment floor; (b) Rear view showing spouts for gravity flow of part of grain and 12' x 16' wood stove transfer bin; (c) Sacking device to attach to gravity spout.

Box 65:54

3308 **Farm Elevator, Hazford Place, El Dorado, Kansas 1931 July**

Photographer: Long, J.D.

Subjects and Indexing Terms

.732 Corn cribs, granaries and seed rooms

Scope and Content Note

Excellent farm elevator and feed room on noted Hereford cattle farm. Receiving scale, pit, four stave bins, feed grinding, mixing and storage.
Box 65:54 546 1002  Grain Marc house - concrete, John Rogers Ranch, southwest of Davis, California 1920
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.732 Corn cribs, granaries and seed rooms
Scope and Content Note
Concrete and Steel Construction.

Box 65:54 3328a 3328b  Farm Granary, Fox demonstration farm, Des Moines, Iowa. 1931 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.732 Corn cribs, granaries and seed rooms
Scope and Content Note
One side of ventilated concrete block for ear corn, other side standard concrete staves for small grain. Well equipped with elevator, grinder and mixer.

Box 65:54 3309a 3309b  Granary, V.L. Polson farm, Fredonia, Kansas 1931 July
Photographer: Long, J.D.
Subjects and Indexing Terms
.732 Corn cribs, granaries and seed rooms
Scope and Content Note
Standard concrete staves for silo adapted for granary. Rafters notched over edges of staves.

Box 65:55 3035a 3035b 3035c  Farm Grain Storage, T.A. Kilkenny ranch 5 miles northwest of Dixon 1930 January 23
Photographer: Long J.D.
Subjects and Indexing Terms
.732 Corn cribs, granaries and seed rooms
Scope and Content Note
Filled with portable elevator, emptied by gravity. (a) At left discarded dump pit and blower elevator burst by running of too high a speed; (b) Wood granary reinforced by wood girders around it and cross ties, note wrinkling at first joint of metal bin on left; (c) Close up of foundation failure and wrinkling of metal bin.

Box 65:55 2152a 2152b 2152c  Elevators and Farm Storage, Lincoln Elevator (Farm Bureau) 1925 July
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.732 Corn cribs, granaries and seed rooms
Scope and Content Note
(a and b) Dumping a load of bulk grain. (c) New storage unit under construction.

Box 65:55 3085  Grain Elevator Construction, Union Warehouse Co., Woodland, California 1930 April 2
Photographer: Long, J.D.
Subjects and Indexing Terms
.732 Corn cribs, granaries and seed rooms
Scope and Content Note
20' dia. receiving bins at left erected with Polk steel forms. 14' dia. Storage bins at left erected with Metaform steel forms. John Berlinger, Orland, contractor.
Box 65:55 3086  Wind damage to steel bins, T.A. Kilkenny ranch (10 mi northwest Dixon) 1930 April 20
Photographer: Long, J.D.
Subjects and Indexing Terms
.732 Corn cribs, granaries and seed rooms
Scope and Content Note
Second hand "Calco" bins poorly erected. No roof, 1" pipe stiffener around top, poor concrete foundation.

Box 65:55 1098a 1098b  Frame of Poultry Feed House 1923 July
Photographer: Long, J.D.
Subjects and Indexing Terms
.732 Corn cribs, granaries and seed rooms
Scope and Content Note
Wired by Stirniman and McKibben.

Box 65:55 1975a 1975b  Acorn Storage 1925 September
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.732 Corn cribs, granaries and seed rooms
Scope and Content Note
Holes drilled in pine tree and fence posts by woodpeckers for storing acorns. Between Bangor and Hancott, Butte County. Acorns rammed into tight fit to prevent ready removal by squirrels and bears.

Box 65:55 436a 436b  Bulk Handling of Grain, Natomas Lands, Sacramento, California 1921 March 1
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.732 Corn cribs, granaries and seed rooms
Scope and Content Note
Moreing Bros. outfit. Dump incline ograde at wharf. Trucks run up incline, lock wheels, dump grain and back away. Incline made with Fresno scraper.

Box 65:55 3620a 3620b 3620c  Grain Storage, Tehama County, Teisseire Ranch 1932 November 21
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.732 Corn cribs, granaries and seed rooms
Scope and Content Note
Bulk Grain Bins. 11’ x 46’ inside, 12’ from foundation to plate. Wood crib horizontal 2" x 6" at 14" o.c. bolted at corners. Vertical 4” x 4”s 5’10” o.c. Two 1/2’ rods as cross ties. Walls 26 gauge corrugated galvanized iron sheets. Grain spouts at floor line from each bin. Cost of first unit between $500 and $600 including painting and all labor. A portion of concrete foundation was already in place, not included in cost. Pit and elevator legs will be placed between the two units.
Box 65:56 735 696a Grain Storage, Canejo and Glenn County, California 1921 December
Photographer: Stirniman, E.J.
Subjects and Indexing Terms .733 Silos
Scope and Content Note
The concrete storage is on the Canejo ranch, Canejo. The steel elevator on S.P. line in Glenn Co.

Box 65:56 734 735 Grain Storage Bulk, North of Davis 1921
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .733 Silos
Scope and Content Note
Concrete storage bins. (Built by a farmer's cooperation(?)) Canejo ranch, Canejo.

Box 65:56 1211 1212 Electrical Conserving of Green Forage crops undated
Photographer:
Subjects and Indexing Terms .733 Silos

Box 65:56 1213 840 837 Electrical Conserving of Green Forage Crops undated
Photographer:
Subjects and Indexing Terms .733 Silos

Box 65:56 841 843 Electrical Conserving of Green Forage Crops undated
Photographer:
Subjects and Indexing Terms .733 Silos

Box 65:56 2888a 2888b 2888c 2888d Grain Storage, Dixon - Graino - Hershey, California 1926 July
Photographer: Stirniman, E.J.
Subjects and Indexing Terms .733 Silos
Scope and Content Note
Bulking Grain. (a) A bulk grain truck unloading into a portable elevator for farm storage (at Tam Kilkenny's). (b and c) Scarlett and Baldwin bulk handling grain at Graino. (d) Mr. Emmets farm bulk grain storage near Hershey, Colusa County.

Box 65:56 3098 Silo, State Hospital Farm, Stockton, California 1930 June
Photographer: Long, J.D.
Subjects and Indexing Terms .733 Silos
Scope and Content Note
Concrete Stave. Nelson concrete stave with steel chute and door.

Box 65:56 3094 Concrete stave silo door, Wilson concrete yard, Turlock, California 1930 June
Photographer: Long, J.D.
Subjects and Indexing Terms .733 Silos
Scope and Content Note
Concrete door block showing inside bevel and welded steel plate door swing on pins.
Box 65:56
AE 54 Wood Hoop Silo, Near Madera, California 1917 April
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.733 Silos
Scope and Content Note
Farm Bureau Demonstration. 10 x 30 silo. Material cost $30.00. See Trip Report No. 32.

Box 65:56
AE 47 Wood Hoop Silo, At Clay, California 1917 April
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.733 Silos
Scope and Content Note

Box 65:56
1731 Silo, Lincoln Nebraska, University Farm 1924 June 17
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.733 Silos
Scope and Content Note
One of the silos at the farms on the agronomy section of the University Farm.

Box 65:56
Silo, Patterson, California 1917
Photographer:
Subjects and Indexing Terms
.733 Silos
Scope and Content Note
Wood hoop.

Box 65:56
AE 55 Wood Hoop Silo, Near Madera, California 1917 April
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.733 Silos
Scope and Content Note
10 x 30 silo. Material cost $30.00. See trip report No. 32.

Box 65:56
2080 Failure of Concrete Silo, De Luxe Ranch - Near Cottonwood in Tehama County, California. 1925
Photographer: Fairbank, J.P.
Subjects and Indexing Terms
.733 Silos
Scope and Content Note
2- 18 x 60 concrete silos failed. Other two still standing. See Belton for report by Portland Cement Association.

Box 65:57
1632a 1632b 1632c Silos Cyclone Effects, Story County, Iowa undated
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.733 Silos
Scope and Content Note
(a) Roof of hay barn carried about 75 yards. (b) Iowa - Silo alongside wrecked barn. (c) Wooden stave silo; upper part wrecked.
| Box 65:57 | 764 769 774 | **Silo Construction undated**  
Photographer:  
Subjects and Indexing Terms  .733 Silos  
Scope and Content Note  
Detail of derrick. |
|---|---|---|
| Box 65:57 | 3305 | **Pit Silos, Western Kansas, Experiment Farm 1931 July**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  .733 Silos  
Scope and Content Note  
Near Scott City. Overhead track device for feeding from pit silos. |
| Box 65:57 | **Silo, Paterson, California 1917**  
Photographer:  
Subjects and Indexing Terms  .733 Silos  
Scope and Content Note  
Wood hoop. |
| Box 65:57 | 1448a 1448b 1448c | **Silo Depreciation, University Farm 1923 October**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  .733 Silos  
Scope and Content Note  
Wood hoop type silo started to go over when about 3/4 full (about 3rd hoop from top). Guy-wires had been removed to make for greater ease in fitting. Note that braces at [?] are giving way, toe railing failing to hold. Many braces in compression have [?] into wood and are holding. Unfilled portion at top being held vertical by braces. |
| Box 65:57 | 804a 804e | **Wooden Silos undated**  
Photographer:  
Subjects and Indexing Terms  .733 Silos  
Scope and Content Note  |
| Box 65:57 | 804c 804b | **Wooden Silos undated**  
Photographer:  
Subjects and Indexing Terms  .733 Silos  
Scope and Content Note  |
| Box 65:57 | **Silo, University Farm, Davis, California 1915**  
Photographer: Prof. Woll  
Subjects and Indexing Terms  .733 Silos  
Scope and Content Note  
Plastered concrete. |
Box 65:57

111 Wood Hoop Silo, Clay, California 1917 April
Photographer: Davidson, J.B.
Subjects and Indexing Terms
733 Silos

Scope and Content Note
Stave.

Box 65:57

146 Silo undated
Photographer:
Subjects and Indexing Terms
733 Silos
Scope and Content Note
Wood Hoop

Box 65:58

144 Silo 1917
Photographer: Stiles
Subjects and Indexing Terms
733 Silos
Scope and Content Note
Wood Hoop

Box 65:58

145 Silo 1917
Photographer: Davidson, J.B.
Subjects and Indexing Terms
733 Silos
Scope and Content Note
Wood hoop

Box 65:58

3315 Silos, Northern Colorado 1931 June
Photographer: Long, J.D.
Subjects and Indexing Terms
733 Silos
Scope and Content Note

Box 65:58

3280 Silos, Hagford Place, El Dorado, Kansas 1931 July
Photographer: Long, J.D.
Subjects and Indexing Terms
733 Silos
Scope and Content Note
Battery of four silos, 2 brick, 1 tile, 1 concrete stave.

Box 65:58

2135a 2135b 2135c 2135d 2135e 2135f 2135g Harvesting Grain in Bulk, Fred Harvey - Galt, California undated
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
733 Silos
Scope and Content Note
(a) Silos connected into bulk grain elevator. (b) Cleaner and grain chute. (c) Bagging attachment at bulk elevator. (d) Same as (a). (e) Old silo and water tank used for bulk seed storage (f)-(g) Elevator legs and pit constructed between 2 silos (g) discharge being drained into bin.
Box 65:58  3302  **Pit Silos, Southwestern Nebraska 1931 June**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
Silos on a knoll, feeding yard below.

Box 65:58  2525a  **Silos, C.H. Hopkins Ranch, Davis, California 1924 May**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
Wood silos.

Box 65:58  676  **Milk Cans, El Centro, California undated**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
Remodeled into buckets for digging of pit silo.

Box 65:58  1164c  **Electrical Conserving of Green Forage Crops, Davis, California 1922 Fall**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.733 Silos

Box 65:58  1164a  1164b  **Silos, Davis, California 1922 Fall**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
Electrical conserving of green forage crops

Box 65:59  761  **Silo Construction undated**  
Photographer:  
Subjects and Indexing Terms  
.733 Silos

Box 65:59  1851  **Cement Stave Silo, Orange County Farm, Santa Ana, California 1925 June**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
Ready to lay foundation.

Box 65:59  763  793  **Silo Construction undated**  
Photographer:  
Subjects and Indexing Terms  
.733 Silos
1333a 1333b **De Loval Silo at Beef Barn 1923 September**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.733 Silos

765 766 **Silo Construction undated**  
Photographer:  
Subjects and Indexing Terms  
.733 Silos

127 **Silo, Hopland, California 1917 May**  
Photographer: Davidson, J.B.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
Stave, Foster Ranch

1597a 1597b **Monolithic Concrete Silo, Dick Bros. Ranch, Yolo 1924 April**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
Poured from homemade forms. 12' x 36' monolithic with 5' wall 5/8 steel reinforcing 2' o.c. Vertical and 9' o.c. horizontal at bottom increased to 2' at top. Total cost of steel about $80. Gravel cost $1.50 to haul 140 sack cement used. Labor 1 1/2 days to raise forms - 2 men. 1/2 day to pour (1 ring) - 3 men. Forms homemade of sheet steel at cost of $40.00. Total cost $450 could be cut down to $350.00 by improving forms to permit of easier raising. Farm Bldg, 14 x 17 approx.

1863 **Pit Silo, W.W. McBride dairy, El Centro 1925 June**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
18' diam, 40' (? ) deep (5' above grade). Note open feed racks at left of silo. Derrick leg was broken at time picture was taken.

1615 **Silo, R.W. Morehead ranch, Sutter 1924 June 14**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
22' x 40' silo 12 (?) years old. Fending barn and milk house in background.
Box 65:60

148 **Silos, Iowa undated**
   Photographer:
   Subjects and Indexing Terms
   .733 Silos
   Scope and Content Note
   Steer feeding.

Box 65:60

575b **Silos, University Farm undated**
   Photographer:
   Subjects and Indexing Terms
   .733 Silos

Box 65:60

805a 805b **Silos, Wooden undated**
   Photographer:
   Subjects and Indexing Terms
   .733 Silos

Box 65:60

1118 **Wooden Hoop Silo, Sawyer Ranch - Delhi Colony 1920 August**
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .733 Silos
   Scope and Content Note
   Demonstration conducted by Belton and Long. Silo blew down before being filled due to inadequate guywiring.

Box 65:60

**Silos - Wooden undated**
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .733 Silos

Box 65:60

574 575 576 **Silos undated**
   Photographer: Hoffman, A.H.
   Subjects and Indexing Terms
   .733 Silos

Box 65:60

3156 **Wood Hoop Silo, Noel Negley dairy, Escalon, California 1930 September**
   Photographer: Fleming
   Subjects and Indexing Terms
   .733 Silos
   Scope and Content Note
   Red wood. Cost approximately $200.00.

Box 65:60

**Wood Hoop Silo, Huddleson Ranch, near Woodland, California 1917**
   Photographer: Davidson, J.B.
   Subjects and Indexing Terms
   .733 Silos
   Scope and Content Note
   Red wood. Cost approximately $200.00.
Box 65:60  
AE 48  
**Wood Hoop Silo, At Clay, California 1917 April**  
Photographer: Davidson, J.B.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  

Box 65:60  
AE 72  
**Wood hoop silo, University Farm, Davis, California 1917**  
Photographer: Davidson, J.B.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
Built by Farm Advisor.

Box 65:61  
15  
**Silo undated**  
Photographer:  
Subjects and Indexing Terms  
.733 Silos

Box 65:61  
768  
**Silos Pit undated**  
Photographer:  
Subjects and Indexing Terms  
.733 Silos

Box 65:61  
1693  
**20' x 48' (?) Monolithic Silo, Near Newman, California 1924 October 19**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
Concrete covered with galvanized water tank above.

Box 65:61  
1356a 1356b 1356c  
**Cement Stave Silo, Noble Cement Stave Works, Tulare, California 1922 September**  
Photographer: H.L.B.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
Cement stave (?) yard. See Belton's Data on Cement stave silo.

Box 65:61  
**Silos, Washington state 1919 August**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.733 Silos  
Scope and Content Note  
Concrete and wood type. Extension.
Box 65:61 1341 **Battery of Wood Silos at University Farm, Davis 1923 September**
Photographer: Long, J.D.
Subjects and Indexing Terms
.733 Silos

Box 65:61 986 **Pit Silos, J.E. Wherrel's Jersey Farm, Riverside, California 1924 October 23**
Photographer: Long, J.D.
Subjects and Indexing Terms
.733 Silos
Scope and Content Note

Box 65:61 AE 56 **Wood Hoop Silo, Near Madera, California 1917 April**
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.733 Silos
Scope and Content Note
Farm Bureau demonstration. 10 x 30 Silo Material cost $30.00. See Trip Report No. 32.

Box 66:1 1365a 1365b 1365c **Milk House, T.L. Rancy Ranch - 2 miles north of Davis 1923 August**
Photographer: Long, J.D.
Subjects and Indexing Terms
.734 Milk houses and creameries
Scope and Content Note
Built following general plan of standard U.C. Plan B-3-4 but with enclosed wash room horizontal siding, larger cooling vat across end of milk room ceiled inside with T and G (plastered up 4 ft). and gable roof.

Box 66:1 2755 **Milk House, Frank Inderkum Ranch, Natomas Boulevard., Sacramento. 1928 November**
Photographer: Lavernetti, J.
Subjects and Indexing Terms
.734 Milk houses and creameries
Scope and Content Note
Has 3 milkers milking 64 cows by hand. Stores milk overnight.

Box 66:1 2770 **Milk House, C. Casselman, Elkhorn 1928 October**
Photographer: Lavernetti, J.
Subjects and Indexing Terms
.734 Milk houses and creameries
Scope and Content Note
72 cows, 200 gallons milk per day. 3 milkers milking by hand.

Box 66:1 2782 **Milk House, L. Ashwanden, Elkhorn 1928 October**
Photographer: Lavernetti, J.
Subjects and Indexing Terms
.734 Milk houses and creameries
Scope and Content Note
78 cows, 230 gallons milk by hand. Milkhouse about 150 ft. from milk barn.
Box 66:1 1698a 1698b Milk House, Ira Smith Ranch, Riverbank. Sacramento Woodland Highway. 1924 October 24

Photographer: Long, J.D.

Subjects and Indexing Terms
.734 Milk houses and creameries

Scope and Content Note
This house was built by Agricultural Engineering Staff and used in "Model" Dairy exhibit at 1923 state fair. House was redesigned in some features following this experience.

Box 66:1 987a 987b 987c 987d Milk House Interior, P.S. and R.L. Morehead ranch, Sutter City 1924 October 17

Photographer: Long, J.D.

Subjects and Indexing Terms
.734 Milk houses and creameries

Scope and Content Note
Floor Plan #1 standard 20' x 32' milkhouse. (a) Exterior wall of milkhouse on driveway shows doors at far end to the two cold rooms, wide door in center heading to straining platform and door at extreme right to wash room. (b) View from wash room from door opening on driveway. Shows steps to straining platform, refrigeration machinery and brine box and door opening into concrete sterilizer. (c) View from wash room door into milk room. Shows tubular cooler with connections to brine pump and motor hanging from ceiling and door opening into milk cold room. (d) View in milk room showing door opening from sterilizer, tubular cooler and at extreme right milk cold room door. The lined opening thru the wall from straining platform shows just behind far hanger above cooler. See trip report #8.

Box 66:1 2933 2934 2935 Milk House, W.N. Hill Dairy, Fresno 1929 May 22

Photographer: Moses, B.D.

Subjects and Indexing Terms
.734 Milk houses and creameries

Scope and Content Note
Milking 100 cows and selling Grade A market milk in bulk. Equipped with 1/2 a ton Frigidaire cooling plant and Malsbury sterilizer.

Box 66:1 1692a 1692b Milk Houses 1924 October 23

Photographer: Long, J.D.

Subjects and Indexing Terms
.734 Milk houses and creameries

Scope and Content Note
(a) 12' x 18' (approx) milkhouse on Eastmont Jersey Farm, Grant. A. Brown - owner. El Monte. (b) 10' x 16' milk house on San Alois Jersey Farm, Harry H. Cook owner, Ontario.

Box 66:1 1696a 1696b Milk House, Hanna and Sons, 5 miles out Sacramento Woodland Hwy. 1924 October 24

Photographer: Long, J.D.

Subjects and Indexing Terms
.734 Milk houses and creameries

Scope and Content Note
20' x 32' - similar to Agricultural Engineering Division standard plans. Contains 3 ton refrigeration plant and cold room, boiler and concrete sterilizer as shown, concrete wash trap and other standard equipment. Clay block secured from seconds pile in cannon yards - Sac at $45 thousand. Milking machine included in refrigeration machinery room and run from same motor.
Box 66:1 82 Milk House, Lathrop, California 1917
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.734 Milk houses and creameries
Scope and Content Note
Clay Block Construction. Moring Ranch.

Box 66:2 1866 Milk House, Ranch of W.W. McBride, El Centro, California 1925 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.734 Milk houses and creameries
Scope and Content Note
Imperial Valley. Milk house, sterilizer and wash house with settling pool for water from
ditch behind sterilizer. Milkhouse is screened on 3 sides. With these structures Mr.
McBride has never had a bacterial count above 1800 and is the only dairyman in the
valley producing a "Grade A" product.

Box 66:2 2115 Milk House, Orange County, Northwest Santa Ana 1924 November
Photographer: Long, J.D.
Subjects and Indexing Terms
.734 Milk houses and creameries
Scope and Content Note
Note open, yet sheltered, straining vat and high platform. Cold room to right made in
panels to take down in case tenant moves.

Box 66:2 3150 Milk Houses, San Joaquin County 1930 September
Photographer: Long, J.D. and Fleming
Subjects and Indexing Terms
.734 Milk houses and creameries
Scope and Content Note
Large picture taken at Northridge dairy, Banta. Cost estimate by owner $300; tile milk
house on Cowell ranch, Manteca; milk house with gable on Lee Van Wyk dairy, Ripon.

Box 66:2 3164 Milk House, Northridge Dairy, Stockton 1930 September
Photographer: Long, J.D.
Subjects and Indexing Terms
.734 Milk houses and creameries
Scope and Content Note
Note sheets of galvanized iron behind cooler and pipe stand for vat.

Box 66:2 1695 Milk House, 8 miles out of Sacramento on Woodland Hwy along levee. 1924 October 24
Photographer: Long, J.D.
Subjects and Indexing Terms
.734 Milk houses and creameries
Scope and Content Note
10’ x 24.’ Shows concrete side wall along milk room and straining room and loading
platform at end of house.
Box 66:2

1371 **Milk House, Jersey Dairy, 3 miles out of Santa Rosa 1923 July**

Photographer: Long, J.D.

Subjects and Indexing Terms

.734 Milk houses and creameries

Scope and Content Note

Note cooling tower for water for tubular cooler, outside straining platform, concrete side walls, skylight, and airing porch for cans and utensils.

Box 66:2

1749a 1749b **Milk House, Dairy Barn, University Farm, Davis 1924 December**

Photographer: Long, J.D.

Subjects and Indexing Terms

.734 Milk houses and creameries

Scope and Content Note

Stuccoed over tile Block. Milk house attached by enclosed straining vestibule to milking barn.

Box 66:2

1614 **Milk House, R.W. Morehead ranch, Sutter 1924 June 14**

Photographer: Long, J.D.

Subjects and Indexing Terms

.734 Milk houses and creameries

Scope and Content Note

8' x 8' Concrete and frame. To be replaced by 20' x 32' milk house in new development of dairy layout.

Box 66:2

Unnumbered **Dairy Barn, Redlands 1922 March**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.734 Milk houses and creameries

Scope and Content Note

Barn and Milk house included.

Box 66:2

1119 **Cream Can Delivery Shed 1923 July**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.734 Milk houses and creameries

Scope and Content Note

Small shed at farm gate for holding cream cans until picked up by collector. May be mounted on [pash?] at truck height.

Box 66:3

1579 **Sunning rack for dairy utensils, Mrs. Lanelle's Goat Dairy, Calistoga 1924 January**

Photographer: Long, J.D.

Subjects and Indexing Terms

.734 Milk houses and creameries

Scope and Content Note

Rustic can rack and pergola used on dairy. (See trip report for general information of dairy) Milk room used was in basement of house.
Box 66:3  
**Root storage, San Bernardino Co. Hospital 1923 April**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
-.735 Root and fruit storage buildings  
Scope and Content Note  
Concrete with metal roof. Roof will be covered with straw or packed later.

Box 66:3  
**Sweet Potato Storage, near Turlock 1931 March**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
-.735 Root and fruit storage buildings  
Scope and Content Note  
Average dimensions 16’ x 18’ x 6’ high, placed 3 to 5 ft. underground. Dirt floor, redwood boards on sidewalls. Potatoes stored in bulk, rack up like cordwood, shipped out in boxes.

Box 66:3  
**Sweet Potato Storage, University Farm 1933 October**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
-.735 Root and fruit storage buildings  
Scope and Content Note  
Experimental. Comparison of typical pit storage and above-ground heated house.

Box 66:3  
**Sweet Potato Storage, Truck Crop Division, U.C. Farm 1932 September**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
-.735 Root and fruit storage buildings  
Scope and Content Note  
Showing wiring panel to electric heaters under two bins in experimental storage house.

Box 66:3  
**Hand truck for moving trays, Esparto, Sam Wells 1936 August 19**  
Photographer: Fairbank, J.P.  
Subjects and Indexing Terms  
-.735 Root and fruit storage buildings  
Scope and Content Note  
Used to move trays cut fruit from sulphur house to dry yard. Made on front axles of autos. Top rolls 8" above ground, car of trays hauled by one man.

Box 66:3  
**Potato storage cellar, Wisconsin Undated**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
-.735 Root and fruit storage buildings  
Scope and Content Note  
(a) farm cellar (b) large farm cellar (c) commercial storage, steam heated. The tubers are stored in tiers of lug boxes.

Box 66:3  
**Root Storage, San Bernardino 1923 April**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
-.735 Root and fruit storage buildings  
Scope and Content Note  
San Bernardino Co. Hospital
Box 66:3

408 Farm Buildings, Sutter Basin Co., Grafton. California 1920 June
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.735 Root and fruit storage buildings
Scope and Content Note
Framework - Melon packing shed.

Box 66:3

700 Store Shed undated
Photographer:
Subjects and Indexing Terms
.735 Root and fruit storage buildings

Box 66:4

5448 Sweet Potato Storage Field Harvesting, Davis, California 1940 November 26
Photographer: Long, J.D.
Subjects and Indexing Terms
.735 Root and fruit storage buildings
Scope and Content Note

Box 66:4

5445 Sweet Potato Storage Typical Underground Storage, Davis, California 1940 December 26
Photographer: Long, J.D. Retake of original photo - Weston, E.W.
Subjects and Indexing Terms
.735 Root and fruit storage buildings
Scope and Content Note
Farm Storage Pit Livingston, Calif. Project 947 Sweet Potato Storage.

Box 66:4

5449 Experimental Storage Structures for Sweet Potatoes, Davis, California 1940 November 27
Photographer: Long, J.D.
Subjects and Indexing Terms
.735 Root and fruit storage buildings
Scope and Content Note
One above ground, one pit storage. For research project 947 Sweet Potato Storage.

Box 66:4

2672 Electricity in the Raisin Industry, Dinuba Plant undated
Photographer:
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Re-cleaners, Sun Maid Raisin Growers. Has cleanliness of electricity secured its adoption in the fruit industries.

Box 66:4

4162 Packing Room, Lemon Packing Plant 1938 June 4
Photographer: Weston, E.W.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Box 66:4  3901a 3901b 3901c  **Fruit Sulfuring House 1923 August**
Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
(a) 23 Yr. old concrete house (wood front replaced 4 yrs. ago) A.L. Grotheer ranch, Suisun Valley. (b)(c)(d) New houses built in Suisun Valley.

Box 66:4  3902a 3902b 3902c 3902d 3902e 3902f  **Fruit Packing Houses, Penryn, California 1933 July**
Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Penryn Fruit Co. packing house. See trip report #2. W.D. Bethel, superintendent.

Box 66:4  2606  **Pear Washer, San Jose, Calif., Assoc. Growers Packing House. 1927 September**
Photographer: Moses, B.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Bean spray Pear Washer for removing arsenic from spraying.

Box 66:4  3891a 3891b  **Fruit Packing House, J.B. Adams, near Newcastle, California 1933 July**
Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
See trip report #2.

Box 66:4  989a 989b  **Fruit Packing Houses, F.L. McCulley - [Sunset?], California 1924 October 17**
Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Large house in background of view of small house is same size as shown in other view.

Box 66:5  4278a 4278b  **Sulfur House Steedif, A.L. Grotheer ranch, Suisan Valley 1938 July**
Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
(a) 29 year old concrete sulfur house with wood frame and floor. (b) Tray stock loaded with test beads for temperature and SO2 gas concentration.

Box 66:5  5430  **Continuous Fruit Cutting Table, Davis 1940 August 16**
Photographer: Weston, E.W. from tracing
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
For Plan C-196
Box 66:5 4276  **Sulfur House Study, Hemet Nursery Co., Hemet, California 1938 August**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.737 Fruit packing houses  
Scope and Content Note  
Typical T and G houses construction, four car tandem - parallel compartments.

Box 66:5 4022a 4022b 4022c  **Sulphur House, Esparto, Sam Wells 1936 August 19**  
Photographer: Fairbanks, J.P.  
Subjects and Indexing Terms  
.737 Fruit packing houses  
Scope and Content Note  
After Plan C-173 but with shed roof. 6 rooms. Cost 325.00. "Hardboard" wall panels 2" pipes lead air into sulphur pots. Front platform could be wider so that open doors would not be struck by transfer car.

Box 66:5 3926a 3926b  **Fruit Sulphuring Houses, Winters area 1935 March 26**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.737 Fruit packing houses  
Scope and Content Note  
See trip Report #26. (a) Cheap, short lived structure on R.B. Hawkins ranch. (b) Two-gable, two-car compartments. Foundation failure due to soil "killed" by sulfur. Leo Larke Ranch.

Box 66:5 4274  **Sulfur House Studies, Carl Bates ranch, Aromas, California 1938 August**  
Photographer: Long J.D.  
Subjects and Indexing Terms  
.737 Fruit packing houses  
Scope and Content Note  
Testing tightened compartment of board and batten house.

Box 66:5 4264a 4264b  **Sulfur House Studies, Barnheiser ranch, Hollister, California 1937 January**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.737 Fruit packing houses  
Scope and Content Note  
Two views of burning pots filled with sulfur slag. In (b) note disc cover used over burner pot to protect tray stacks and at extreme right a cover in place over pot.

Box 66:5 3925a 3925b  **Fruit Sulfuring House, Winters area 1935 March 26**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.737 Fruit packing houses  
Scope and Content Note  
See trip Report #26. (a) Excess superstructure above ceiled compartment (J.A. Boyce). (b) Sloping front and rear walls presumed to accelerate sulphuring. (Gaddini Bros.)
**Box 66:5**

4275a 4275b **Sulfur House Study 1938 August**

Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
(a) Eccentric wood door latch for vertical sliding door, Ed Conett ranch, Ventura. (b) Adobe walls, concrete floor and roof and sheet steel doors, Kearney Park ranch, Fresno.

**Box 66:5**

1111 **Dipping Shed, University Farm 1922 September**

Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses

**Box 66:6**

1116 **Fruit Packing House, Ranch of Prof. Tufts, Winters, Calif. 1923 August**

Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses

**Box 66:6**

1367 **Temporary Fruit Packing House, Ranch of Brother in law of Prof. Tufts, Winters, California undated**

Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Full concrete basement. Note ventilators and sky light windows.

**Box 66:6**

1968a 1968b **Fruit Packing House, to left of highway some 20 miles south of Sacramento on Stockton road. 1925 August**

Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Interesting chiefly because of curved roof construction.

**Box 66:6**

4170 **Briggs Lemon Packing Plant 1938 June 4**

Photographer: Weston, E.W.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
A.J. Thille.

**Box 66:6**

4164 **Walnut Packing Plant Flow Sheet, Davis. 1938 June 4**

Photographer: Weston, E.W., from drawing
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Briggs Lemon Packing Plant, Davis 1938 June 4
Photographer: Weston, E.W.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Given by A.J. Thille.

Peach Pitting Machine, Davis 1938 June 4
Photographer: Weston, E.W.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Food Machinery Corp.

Sulfur House Studies, College of Agriculture, Davis 1937 July
Photographer: Weston, E.W.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Three pans of sulfur slag illustrating different surface appearance of rot smothered from lack of ventilation, and that smothered by film of hydrocarbons over surface.

Sulfur House Studies, Esparto and Hollister, California 1937 July
Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
(a) Well-sealed house on Sid Murry ranch, Esparto. (b) Concrete houses on Lynn ranch, Hollister.

Sulfur House Studies, Carl Bates Ranch, Aromas, California 1938 August
Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Two views of small electric dehydrator used in conjunction with sulfuring studies.

Sulfur House Study, Kelseyville Packing Corp., Kelseyville, California 1938 September
Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Two views of small tight sulfuring box used for rate of absorption and high gas concentration studies.
Box 66:7 4260a 4260b **Sulfur House Study, College of Agriculture, Davis 1930 June**

Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Two views of test equipment for determining environment within house as set up for initial work. See Project Report.

Box 66:7 4261a 4261b **Sulfur House Studies, Ned Jacobsen’s Ranch, Hollister, California 1937 July**

Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
(a) Sulfur slag waste from earth burning pit. (b) Conducting test on So2 gas concentration and temperatures in fruit tray stacks in compartment.

Box 66:7 4279a 4279b **Sulfur House Studies, Farm Advisor Verne DeTar ranch, Suisun Valley 1938 July**

Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
(a) Wood frame house with overhanging roof typical of district. (b) View of interior showing plastered walls and ceiling, earth floor and earth burning pit.

Box 66:7 4263a 4263b **Sulfur House Studies 1937 August**

Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
(a) New tandem stack house and dry yard distribution equipment on Peachton Station Ranch of California Lands Co., Gridley. (b) Pinkham Holding Co., ranch Exeter.

Box 66:7 4271a 4271b **Sulfur House Study, Kelseyville Packing Corp, Kelseyville, California 1938 September**

Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Two views of large sulfuring houses typical of district for dried pear production. Section in foreground of recent construction.

Box 66:7 4277a 4277b **Sulfur House Study 1938 July**

Photographer: Long, J.D.
Subjects and Indexing Terms
.737 Fruit packing houses
Scope and Content Note
Forced Air Ventilation. (a) Blower use by J.H. Parks, Hemet. (b) Blower used by California Orchards, King City.
Box 66:7

2457a 2457b  Pump Houses, Owens Valley 1926 February
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .74 Buildings for housing machinery, equipment and supplies
   Scope and Content Note
   Metal pump houses. Los Angeles City Water Dept. pump houses. The square type is most common. Only a very few of the 50 odd houses are of the round type.

Box 66:7

2249  Pump Houses and Transformers, Fresno, California, S. Arakawa R-7 Box 224 1926 October 22
   Photographer: Moses, B.D.
   Subjects and Indexing Terms
   .74 Buildings for housing machinery, equipment and supplies
   Scope and Content Note
   160-A grapes soil very sandy. He has replaced the old 20 HP gas engine with a 3 phase 220 V. electric motor. This place was covered by Histshu’s Survey.

Box 66:8

1091  Shelter for Pumping Motor 1923 July
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .74 Buildings for housing machinery, equipment and supplies
   Scope and Content Note
   Belt runs to pump thru opening in side of shelter. Similar opening in other side permits use of belt for washer etc. of back, porch and residence.

Box 66:8

1362a 1362b 1362c  Building for Housing Farm Machinery, [University?] Farm 1923 May 20
   Photographer: Hoffman, A.H. for H.L.B
   Subjects and Indexing Terms
   .74 Buildings for housing machinery, equipment and supplies
   Scope and Content Note
   Concrete Construction. Implement shed posts in concrete. Shop and shop floor with pit.

Box 66:8

1859  Machine Shed, Kearney Park Ranch, Fresno, California 1925 June
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .741 Machinery sheds and garages
   Scope and Content Note
   Light framing, roof thatched with palm leaves. Thatch had served 6 years but needed replacing. Sign painted on gable end “Put all tools under cover”.

Box 66:8

1871  Machine Shed, Baxter Dairy, Durham, California 1925 May 8
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .741 Machinery sheds and garages
   Scope and Content Note
   Trussed openings, g.i. roofing.
<table>
<thead>
<tr>
<th>Box</th>
<th>Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>66:8</td>
<td>1165</td>
<td><strong>Machine shed, Straloch Farm 1922</strong></td>
</tr>
<tr>
<td></td>
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<td>Photograph: Hoffman, A.H.</td>
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<td></td>
<td></td>
<td>Subjects and Indexing Terms: .741 Machinery sheds and garages</td>
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<tr>
<td></td>
<td></td>
<td>Scope and Content Note: Cantilever post support</td>
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<td>66:8</td>
<td>1085</td>
<td><strong>Machine Shed 1923 July</strong></td>
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<td>Photograph: Stirniman, E.J.</td>
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<td></td>
<td>Subjects and Indexing Terms: .741 Machinery sheds and garages</td>
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<tr>
<td></td>
<td></td>
<td>Scope and Content Note: Note door fastener bar</td>
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<tr>
<td>66:8</td>
<td>1201</td>
<td><strong>Machine Shed 1921</strong></td>
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<td>Photograph: Hoffman, A.H.</td>
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<td>Subjects and Indexing Terms: .741 Machinery sheds and garages</td>
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<td></td>
<td>Scope and Content Note: “Typical Calif. Ranch type”.</td>
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<tr>
<td>66:8</td>
<td>1200</td>
<td><strong>Machine shed undated</strong></td>
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<td>Photograph:</td>
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<td></td>
<td>Subjects and Indexing Terms: .741 Machinery sheds and garages</td>
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<td>Photograph: Fairbanks, J.P.</td>
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<td>Subjects and Indexing Terms: .741 Machinery sheds and garages</td>
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<tr>
<td></td>
<td></td>
<td>Scope and Content Note: Used for repairing 5 Caterpillar tractors. During the</td>
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<td></td>
<td>winter while the tractors are in the field this building is used as a</td>
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<td></td>
<td>packing house for asparagus.</td>
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<tr>
<td>66:9</td>
<td>500</td>
<td><strong>Machine Shed, Box 43 Covina - Paul H. Gray 1923 January</strong></td>
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<td></td>
<td></td>
<td>Photograph: Stirniman, E.J.</td>
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<td>Subjects and Indexing Terms: .741 Machinery sheds and garages</td>
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<tr>
<td></td>
<td></td>
<td>Scope and Content Note: Made from leaky fuel oil tank. Used in 10 A. orange</td>
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<td></td>
<td>farm to house small Cletrac and other machines.</td>
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<td>66:9</td>
<td>1193</td>
<td><strong>Untitled</strong></td>
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<td>Subjects and Indexing Terms: .741 Machinery sheds and garages</td>
</tr>
</tbody>
</table>
Box 66:9  

1339a 1339b **Garage, A.R. Stephen's Farm, Lodi, California 1923 October 5**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.741 Machinery sheds and garages  
Scope and Content Note  
Note - Metal corners on rustic finish on open and closed doors.

Box 66:9  

1626a 1626b **Binder Sheds, 2 Miles north of Williams on highway 1924 August 20**  
Photographer: Moses, B.D.  
Subjects and Indexing Terms  
.741 Machinery sheds and garages  
Scope and Content Note  
Sheds at Houx Bros Headquarters. Binders are stored in these sheds every year after harvest then brought out as shown for overhauling just before harvest. 1-2-3 form panoramic.

Box 66:9  

1443 **Farm Implement Shed, [University] Farm 1922 December**  
Photographer: Stirniman, E.J. for H.L.B.  
Subjects and Indexing Terms  
.741 Machinery sheds and garages  
Scope and Content Note  
Tractor shop - Harness shop Paint shop - at end of Implement shed.

Box 66:9  

Unnumbered **Implement Shed 1922 December**  
Photographer: Stirniman, E.J. for H.L.B.  
Subjects and Indexing Terms  
.741 Machinery sheds and garages  
Scope and Content Note  
H. Hopkins - Straloch Farm

Box 66:9  

1332a 1332b **Implement Sheds, Ranch Bldgs. University Farm, Davis 1923 April**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.741 Machinery sheds and garages
Box 66:10

AE 23  **Implement Shed, Vina Ranch, California 1917 June 28**
Photographer: Davidson, J.B.
Subjects and Indexing Terms
.741 Machinery sheds and garages
Scope and Content Note
Open Wagon and farm machine shed. See trip report No. 41.

Box 66:10

615 568 612  **Implement Shelters Undated**
Photographer:
Subjects and Indexing Terms
.741 Machinery sheds and garages

Box 66:10

568 1008 1009 661 615  **Implement Shelters Undated**
Photographer:
Subjects and Indexing Terms
.741 Machinery sheds and garages

Box 66:10

1015a  **Farm Shop undated**
Photographer:
Subjects and Indexing Terms
.742 Shops
Scope and Content Note
Shows its usefulness although a cheap building.

Box 66:10

1993  **Farm Shop, Agricultural Engineering Farm Machinery Shop 1925**
Photographer: Koeber, James
Subjects and Indexing Terms
.742 Shops
Scope and Content Note
For test on this equipment see C.R.E.A. Prog. Report #3 page 10.

Box 66:10

1858  **Oil Storage House, Kearney Park Ranch, Fresno California 1925 June**
Photographer: Long, J.D.
Subjects and Indexing Terms
.743 Fuel houses
Scope and Content Note
Adobe brick walls - galvanized iron roof. For details see trip Report #17.

Box 66:10

1125  **Field and Oil House 1923 July**
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.743 Fuel houses
Series 1. Index to images 1915-1951

Inventory of the Department of Biological and Agricultural Engineering Records

1922 Oil and Gasoline Tanks, H.E. Carver, Garden Grove, California 1925 October 9
   Photographer: Moses, B.D.
   Subjects and Indexing Terms
   .743 Fuel houses
   Scope and Content Note
   Large tank used for his burner on his walnut dehydrator. Small tank about 40 gallon for gasoline.

Box 66:10 1124 Manure Dump, Dairy 2 miles outside on Santa Rosa road from Sebastopol. 1923 July
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .743 Fuel houses
   Scope and Content Note
   Plank track laid from milking barn past bull pen to dump.

Box 66:10 1107a 1107b Manure Pit, Napa State Hospital, Napa, California 1922 August
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .743 Fuel houses
   Scope and Content Note
   Exterior and Interior View. Note fly screens and walk down side for dumping carrier.

Box 66:11 1123 Manure Pit 1923 July
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .743 Fuel houses
   Scope and Content Note
   One track to milking barn; one to calf barn, walk along top of wood fence in background under track to calf barn forming some shelter for bull pen under. Ground drops and held under board fence by retaining wall.)

Box 66:11 1346 Manure Pits, Davis 1923 September
   Photographer: Hoffman, A.H. for H.L.B.
   Subjects and Indexing Terms
   .743 Fuel houses
   Scope and Content Note
   Manure Box. Taken from tracing of Plan # B-7-2.

Box 66:11 992 Manure Pit, La Lomita Jersey Dairy, F.R. Bain owner, Palms. 1924 October 23
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .743 Fuel houses
   Scope and Content Note
   All liquids from barns and milk house drain to this sump. Float in pit makes connections for automatically emptying pit. Trip report #9.
Box 66:11 811 942  Manure Pit, Napa State Hospital (942) undated
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.743 Fuel houses
Scope and Content Note
(811) Riverside Experiment Station

Box 66:11 1867 Manure Pit 1925 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.743 Fuel houses
Scope and Content Note
8' dia. x 12' deep; flushed out with irrigation water.

Box 66:11 Farm Sanitation undated
Photographer: Stirniman, E.J. (?)
Subjects and Indexing Terms
.743 Fuel houses

Box 66:11 721 Manure Shed, University Farm undated
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.743 Fuel houses

Box 66:11 2092 Manure Handling Scheme, Morris Bros Dairy, Knights Landing, California 1926 April
Photographer: Long, J.D.
Subjects and Indexing Terms
.743 Fuel houses
Scope and Content Note
Manure is picked up from concreted floors and alleys and hauled in wheel barrow up incline and dropped into spreader. Block and tackle overhead raises runway which lays across wagon box. Spreader is left standing just across alleyway from milking barn.

Box 66:11 3095 Manure Pit, El Solyo ranch, Vernalis, California 1930 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.743 Fuel houses
Scope and Content Note
For horse barn. Hand pump used for liquids.

Box 66:11 3106 Liquid Manure Pit, Vaca Dairy, Elmira, California 1930 July
Photographer: Long, J.D.
Subjects and Indexing Terms
.743 Fuel houses
Scope and Content Note
Twelve foot diameter, 12' deep catches all washings from milk house and barn and drainage from corrals. Automatic control on 3-inch pump to empty out through concrete irrigation pipe line.
3174 Manure Pits, Arcata, California undated
Photographer: Chester Hunt Dairy
Subjects and Indexing Terms .743 Fuel houses
Scope and Content Note

1004 Manure Bins undated
Photographer: Belton, H.L.
Subjects and Indexing Terms .743 Fuel houses

3268 Manure Pits, La Motte Dairy, Stockton, California undated
Photographer: Belton, H.L.
Subjects and Indexing Terms .743 Fuel houses

6631 Tank Wagon Spreader for Liquid Manure, Humboldt County undated
Photographer: Pine, W.D.
Subjects and Indexing Terms .743 Fuel houses

719 Auto-Gate Opener, near Calistoga, California undated
Photographer: Stirniman, E.J.
Subjects and Indexing Terms .75 Fences
Scope and Content Note 8 miles out of Sacramento on Folsom road. Gate being raised.

1770 Hydraulic Gate, A.H. Humphrey ranch 1925 January
Photographer: Moses, B.D.
Subjects and Indexing Terms .75 Fences
Scope and Content Note 8 miles out of Sacramento on Folsom road.

1616 Concrete Fence Posts, Dick Bros Ranch, Yolo 1924 April
Photographer: Long, J.D.
Subjects and Indexing Terms .75 Fences
Scope and Content Note Posts formed by D and A steel forms. Fencing tied to posts by wires about posts.
1861 Fence Post Preservation Investigation, University Farm, Agricultural Engineering Division Laboratory 1925 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Showing steel drums as erected for hot and cold bath preservatives treatment.

3161 Stone Fence, San Andreas 1930 September
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Laid dry.

1596 Steel Fence Posts, Gardner Pierce Ranch, Davis, California 1924 April 19
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Three kinds of posts used by Mr. Pierce.

Box 66:13 1401a 1401b Fencing, G.N. Merritt Ranch - 5 miles north of Davis 1923 October 24
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note

Box 66:13 1402a 1402b Fencing, G.N. Merritt Ranch - 5 miles north of Davis 1923 October 24
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
American Galvanized Steel Fence Post. See (2) (a) of "Construction Details" Trip Report of Oct 24-‘23 (A.M.)

Box 66:13 1606a Steel Fence Posts, G.N. Merritt Ranch - 3 miles north of Davis on Woodland Highway 1924 June 6
Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Fence laid low by meandering truck. Two posts broken off. 2 badly bent all other posts in good shape and wire surprisingly tight at straining posts.
Box 66:13 1606b 1606c Steel Fence Posts, G.N. Merritt ranch 3 miles north of Davis 1924 June 9
   Photographer: Stirniman, E.J.
   Subjects and Indexing Terms
   .75 Fences
   Scope and Content Note
   Posts broken by shock. Two views of 2nd post in view (1606 - a) showing clean break at
   one of fastening clips. Post broken by shock to fencing not struck directly by machine.
   See - 1606-a.

Box 66:13 1599a 1599b Steel Forms for Concrete Fence Posts, University Farm 1924 April
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .75 Fences
   Scope and Content Note
   Five Battery Form. Form manufactured by Hotckiss Steel Products Co. Inc. Binghampton
   New York. Shape of post - square tapered - note bars across top to prevent spreading
   under pressure of concrete.

Box 66:13 1577 Steel Fence Posts - Test Fence, Armstrong tract - University Farm 1924
   February
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .75 Fences
   Scope and Content Note
   Home made end post of 1 1/2' G.I. pipe. Experimental homemade post proved unsatisfactory due to height of brace. Note bending under wire stretching strain. Remodeled - See project report.

Box 66:13 1575 Steel Fence Posts - Test Fence, Armstrong Tract 1924 February
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .75 Fences
   Scope and Content Note
   Mixing concrete for setting straining posts. See project report for details. Note water wagon, mixing board, and measuring box.

Box 66:13 1576 Steel Fence Posts - Test Fence, Armstrong Tract, University Farm 1924
   February
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .75 Fences
   Scope and Content Note
   Driving "American" line posts. Driving posts furnished by U.S. Steel Products Co. Time for setting 2 min., 3 men (1 sighting in) sandy soil. See project report.

Box 66:14 1460a 1460b Preservative Treatment of Fence Posts, University Farm 1924 January
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .75 Fences
   Scope and Content Note
   Cold dip process of creosoting. Barrels set in ground - approximate time in bath 8 minutes.
<table>
<thead>
<tr>
<th>Box 66:14</th>
<th>Rail Fence, Northern Idaho 1919 August</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Stirniman, E.J.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .75 Fences</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Stands very well near Palouse, Washington.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 66:14</th>
<th>Rail Fence, Sonoma County west of Santa Rosa 1923 July</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Long, J.D.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .75 Fences</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Note Redwood stake fence across road.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Box 66:14</th>
<th>Cattle Guard, Hearst Ranch, Jolon, California 1925 August 17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Long, J.D.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .75 Fences</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Note gate to be used for certain traffic. Horizontal rails of guard formed of 1 1/2&quot; pipe spaced approximately 6&quot;.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 66:14</th>
<th>Wooden Fence Posts - Test Fence, University Farm - Armstrong Tract 1924 February</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Long, J.D.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .75 Fences</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Action of fence replaced by sections of test fence using steel fence posts. Posts are old redwood railroad ties in place evidently 10 to 12 years or more.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 66:14</th>
<th>Creosoting Redwood Fence Posts, University Farm Ranch 1924 February</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Long, J.D.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .75 Fences</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Posts cost 30 cents each, labor of dipping (cold bath for approximately 10 minutes) .006 cents each; material .02 cents each, (creoste at 38 cents per gal.) prices furnished by Greer.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 66:14</th>
<th>Lot fence, Hopland, California 1917 May</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Photographer: Davidson, J.B.</td>
</tr>
<tr>
<td></td>
<td>Subjects and Indexing Terms .75 Fences</td>
</tr>
<tr>
<td></td>
<td>Scope and Content Note</td>
</tr>
<tr>
<td></td>
<td>Foster Ranch.</td>
</tr>
</tbody>
</table>
Concrete corner post. 12" x 12" Corner Post and average sized brace post of concrete. Brace itself of 2" x 6" wood painted - but so loosely fitted as to have no bracing action. Steel line posts used in fence with concrete posts about every 10 rods and concrete corner posts.


Note hole in post for dowel in end of brace.

Fence destroyed by fire.

(677) Covina, Flood wall and dry ditch. (622) Stone fence near Napa.
Box 66:15

1756a 1756b 1756c 1756d **Concrete Fence Posts, University Farm, Davis, California**

1924 December

Photographer: Long, J.D.

Subjects and Indexing Terms

.75 Fences

Scope and Content Note

Setting concrete posts in test fence. Showing lining of posts using tightly stretched wire near ground and sighting in posts using target as shown.

Box 66:15

1582 **Fence Post Experimental Apparatus, Old Horticulture shed, University Farm, Davis, California 1924 April**

Photographer: Long, J.D.

Subjects and Indexing Terms

.75 Fences

Scope and Content Note

Jig devised by Mr. C.E. Patton, Woodland, California, for stirruping reinforcing for D and A concrete post molds. 2" x 10" plank contains jigs for bending stirruping wire readily to shape.

Box 66:15

1604a 1604b 1604c **Concrete Fence Post Forms, University Farm 1924 April**

Photographer: Long, J.D.

Subjects and Indexing Terms

.75 Fences

Scope and Content Note

D and A "Shaking stand" and forms. Stand and forms manufactured by D and A Post Mold Co. Three Rivers, Michigan. Borrowed for experimental work from Dick Bros. Woodland, California. Views show shaking stand with forms for end and brace posts. Note device on end post for forming a step device to support brace. Shape of end posts "" ; of braces - "D".

Box 66:15

1603a 1603b **Steel Forms for Concrete Fence Posts, University Farm 1924 April**

Photographer: Long, J.D.

Subjects and Indexing Terms

.75 Fences

Scope and Content Note


Box 66:15

**Post Hole Boring Machine 1922**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms

.75 Fences

Box 66:15

**Unnumbered Post Hole Boring Machine, Ventura County, California 1921 December**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.75 Fences

Box 66:16

**779 Post Hole Boring Machine, Ventura County, California 1921 December**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms

.75 Fences
1710a 1710b Post Hole Digger, Nicolaus, California 1924 October 22
   Photographer: Hoffman, A.H.
   Subjects and Indexing Terms
   .75 Fences
   Scope and Content Note
   P.G. and E. power auger for larger post holes. (a) Side (b) Close-up

1574a 1574b Steel Fence Posts - Test Fence, Armstrong Tract - University Farm 1924 February
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .75 Fences
   Scope and Content Note
   End post and driving line post of "Carbo System". See project report for details. Time of driving 2 min. per post - 3 men (1 sighting in). End post set in dirt. Note bending under wire strain.

1583 Fence Post Experimental Apparatus, Old Horticulture shed, University Farm 1924 April
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .75 Fences
   Scope and Content Note
   Jostling device and round mold furnished by National Concrete Machine Co. Madison, Wisconsin. Bundle of standard reinforcing provided by company lies against wall.

1601a 1601b Forms for Concrete Fence Posts, University Farm 1924 April
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .75 Fences
   Scope and Content Note
   Homemade wooden gorm. Posts tapered and corners beveled.

1757a Concrete Base for Wood Fence Posts, University Farm, Davis 1924 November
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .75 Fences
   Scope and Content Note
   Showing one of posts removed from horse barn corral after 10 or 12 years of service. Concrete partially broken away showing wood fully preservated. Post had been treated with some form of creosote preservative and was entirely free of rot.
Box 66:16 1748 **Fence Post, University Farm, Davis 1924 December**
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
8" x 8" redwood post set in concrete. Posts removed from corrals at horse barn when new fences were erected. Out of about a dozen posts examined, three only showed evidences of having rot under the concrete. This could have been prevented probably by pouring a tar filling in the crack about the post after the concrete set and also by making certain that the top of the concrete was well above the ground, to prevent water standing on it. The old fence was removed after 12 years service because of the tops of posts and rails being eaten up by the horses. The new fence was protected by strands of barbed wire along the rails and strap iron on the posts.

Box 66:16 1369 **Turnstile from barn lot 1923 July**
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
State Asylum, Napa, dairy. Yards paved with rubble by inmates. Multiple string milking barn with high ventilating units.

Box 66:16 2096 **Gates and Fencing, State Asylum, Napa, California 1923 October**
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
State Asylum, Napa, dairy. Yards paved with rubble by inmates. Multiple string milking barn with high ventilating units.

Box 66:16 3304 **Cattle Guard, near Scott City, Kansas undated**
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note

Box 66:16 1384 **Fence Posts, Stanley Rogers Place 1923 September**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Post destroyed by grass fire. Highway fence.

Box 66:17 1406a 1406b **Fencing, Aero Club, Woodland, California 1923 October**
Photographer: Fletcher and Hoffman, A.H.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Wood fence post depreciation. Fence completely destroyed by fire.
| Box 66:17 | 1403 | **Fencing, Cross road from G.N. Merritt Ranch 5 miles north of Davis, California**  
**1923 October 24**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.75 Fences  
Scope and Content Note  
Wooden Posts. Fence thrown out at angle of about 30 degrees from vertical evidently by plowing close to fence on inside and throwing dirt against fence. Posts seemingly solid and untouched by rot. |
|---|---|---|
| Box 66:17 | 1227 1228 | **Fences and Gate undated**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.75 Fences  
Scope and Content Note |
| Box 66:17 | 3097 | **Gate latch, El Solyo ranch, Vernalis, California 1930 June**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.75 Fences  
Scope and Content Note  
Operated from horse-back, spring closing. |
| Box 66:17 | 1121 | **Redwood Stake House, Sonoma County, west of Petaluma, California 1923 July**  
Photographer: Long, J.D.  
Subjects and Indexing Terms  
.75 Fences  
Scope and Content Note |
| Box 66:17 | 482 | **Farm Gates undated**  
Photographer:  
Subjects and Indexing Terms  
.75 Fences  
Scope and Content Note |
| Box 66:17 | 904 | **Fencing, Near Napa, California undated**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.75 Fences  
Scope and Content Note  
Stone Fence. |
| Box 66:17 | 1607 | **Gate Brace Post, Straloch Farm, Davis, California 1924 June 6**  
Photographer: Stirniman, E.J.  
Subjects and Indexing Terms  
.75 Fences  
Scope and Content Note  
Diagonal brace to wooden gate post. Note mortise of brace with post. |
Box 66:17

1855 Entrance Gateway, Roy Baker Ranch, Sangus, Los Angeles County, California. 1925 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Adobe block stuccoed. Adobes made by A.B. McIntyre who also constructed the residence and barn. Wall ready for finish coat of plaster.

Box 66:17

1865 Entrance Gateway, Hoover Ranch, Wasco, California 1925 June
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences

Box 66:18

2843 Farmstead, Near Fowler, California 1929 February 21
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
An example of over-ornamentation of buildings and no care or planting of farmstead.

Box 66:18

3166 Cattle Guard, Ceresa Plains San Luis Obispo County, California 1930 Summer
Photographer: Winters
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Light weight railroad rails used in guard on wood girders.

Box 66:18

Concrete Posts, Iowa State College undated
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Types of molds.

Box 66:18

Concrete Posts, Iowa State College undated
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
(a) One method of holding fencing against line. (b) Corrugated face for holding tie wires. Posts not reinforced. (c) Massive corner post. (d) Method of bending reinforcing for line posts.
Box 66:18 4085 4086 Electric Fences, Davis 1937 May 17
Photographer: Weston, E.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Wiring diagrams for different controllers. For description see Project 400N Page 341.

Box 66:18 4087 4088 Electric Fences, Davis 1937 May 17
Photographer: Weston, E.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Wiring diagrams of different controllers. In description see Project 400-N. Page 341.

Box 66:18 4089 4090 4091 Electric Fences, Davis 1937 May 17
Photographer: Weston, E.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Wiring diagrams. In descriptions see Project 400N. Page 341.

Box 66:18 3127 Fence Post Preservation. Agricultural Engineering Building, University Farm, Davis, California 1930 July
Photographer: Long, J.D.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Brick furnace and steel tank set-up for steeping and hot and cold bath treatments. Experimental work in project 396-I.

Box 66:18 5496a 5496b 5496c 12-yr. Exposure test of 12" stakes 1941 May 1
Photographer: Neubauer, L.W.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note

Box 66:19 5497a 5497b Exposure Test of Stakes (12 yrs-12" Redwood), Agricultural Engineering Dept., Davis 1941 May 1
Photographer: Neubauer, L.W.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
Box 66:19

5498a 5498b 5498c 5498d Exposure Test of Stakes (12 yrs 12") Douglas Fir, Agricultural Engineering Dept., Davis 1941 May 1

Photographer: Neubauer, L.W.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note

Box 66:19

5499a 5499b 5499c Exposure tests of Stakes (12 yr - 12") Eucalyptus, Agricultural Engineering Dept., Davis 1941 May 1

Photographer: Neubauer, L.W.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note

Box 66:19

5495a 5495a' Termite action on 12" stakes, Agricultural Engineering Building, Davis 1941 April 30

Photographer: Neubauer, L.W.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note

Box 66:19

5639 Beam Testing Machine, Davis 1943 October 5

Photographer: Weston (Neubauer, L.W.)
Subjects and Indexing Terms
.75 Fences
Scope and Content Note

Box 66:19

5500a 5500b Fence Post Test Methods, Agricultural Engineering Lab., Davis 1941 April 30

Photographer: Neubauer, L.W.
Subjects and Indexing Terms
.75 Fences
Scope and Content Note
A Small Beam tester and Field post tester. Project 396-I. (a) Used for breaking the 1" x 1" x12" specimens. (b) Used for field-tests of posts and grape-stakes.
**Box 66:19**

4092a 4092b 4092c  **A.S.T.M. Wire and Wire Products Test Plots, Santa Cruz and Davis**

**1937 May**

Photographer: Long, J.D.

Subjects and Indexing Terms

.75 Fences

Scope and Content Note

(a) Sign erected on Santa Cruz Plot. (b) Santa Cruz Plot showing results of rototiller maintenance. (c) Dairy test plot.

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**Box 66:19**

6680a 6680b 6680c  **Weed Cutter for Fence Posts Test Plot, Davis**

1949 May

Photographer: Neubauer, L.W.

Subjects and Indexing Terms

.75 Fences

Scope and Content Note

Weed Cutter 3/4 h.p. engine.

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**Box 66:19**

6681a 6681b 6681c  **Weed Cutter for Fence Posts Test Plot, Davis**

1951 March

Photographer: Neubauer, L.W.

Subjects and Indexing Terms

.75 Fences

Scope and Content Note

Weed Cutter with large engine.

---

**Box 66:19**

85 86  **Farmstead, Santa Cruz, Cal. 1916 June**

Photographer: Davidson, J.B.

Subjects and Indexing Terms

.76 Farmsteads

Scope and Content Note

Moore Ranch.

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**Box 66:20**

2865a 2865b  **Farmstead, State Dept. of Forestry Nursery near Davis, California**

1929 April 25

Photographer: Weston (for Long, J.D.)

Subjects and Indexing Terms

.76 Farmsteads

Scope and Content Note

Good example of uniform architecture and value of plantings.

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**Box 66:20**

**Farmstead, Dairy Cattle Layout, San Diego Co. Farm, [Santie] Cal. undated**

Photographer: Taylor, Harold

Subjects and Indexing Terms

.76 Farmsteads

Scope and Content Note

Built by Mr. Dupee in 1913 at cost of 1/2 million dollars to house his herd of pure bred Guernseys. Later sold to county. Jamesway equipment and design throughout. Contrast with pictures of layout erected in Riverside afterward.

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**Box 66:20**

**Kerney Ranch - The Park, Fresno, California 1915 August**

Photographer: Davidson, J.B.

Subjects and Indexing Terms

.76 Farmsteads
83 84 Farmstead, Santa Cruz, California 1916 June
   Photographer: Davidson, J.B.
   Subjects and Indexing Terms
   .76 Farmsteads
   Scope and Content Note
   Moore Ranch.

2640 Farmstead, Between Kearney Park and Fresno, California 1928 February 26
   Photographer: Long, J.D.
   Subjects and Indexing Terms
   .76 Farmsteads
   Scope and Content Note
   The architectural balance and grouping is better than average.

4184 Insect traps, El Solyo Ranch, Vernalis, California 1936 June
   Photographer: Moses, B.D.
   Subjects and Indexing Terms
   .83 Fly vermin and rodent eradication
   Scope and Content Note
   Monolithic trap in El Solyo Vineyard. 1 lamp per 3 acres uses mercury vapor tube getting
   blue-green light.

Air Cleaner Tests 1922
   Photographer: Hoffman, A.H.
   Subjects and Indexing Terms
   .42571 Air cleaners
   Scope and Content Note
   Graphs. (a) Efficiency of air cleaner. (b) Vacuum due to air cleaner. (c) Effect of vacuum
   on power of engine. (d) Effect of cleaners on power of engine.

Air Cleaner Studies 1926 July
   Photographer: Hoffman, A.H.
   Subjects and Indexing Terms
   .42571 Air cleaners
   Scope and Content Note
   Dust distribution screens Cadillac V8; Storer's. (a),(b),(c),(d) 5" x 7" plate negs. (e),(f)
   #116 negs. (g),(h),(i) no. 122 negs.

Air Cleaner Studies 1926 July
   Photographer: Hoffman, A.H.
   Subjects and Indexing Terms
   .42571 Air cleaners
   Scope and Content Note
   Bennett oil filter and dry cent. on C.E. Barker's Ford Coupe. Dust per mile test. Note
   method of heating air.
Box 66:21  
2118a 2118b  **Air Cleaner Studies 1926 July**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Gordon rubber filter on N.M. Fishe's Dodge Sedan. Dust per mile test and test of deterioration of rubber.

Box 66:21  
2119a 2119b 2119c  **Air Cleaner Studies 1926 July**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
(a) fan 660. (b) fan 1220 (c) fan 1640 Test of dust distribution inside test tank for radiation fan type air cleaners. At fan r.p.m. 660, 1220 and 1640 maps were made using 1 gram no. 3 std. dust, 10 min. run 20 .4H.P. Screen located in plane of standard air intake position.

Box 66:21  
2194a 2194b  **Air Cleaner Studies 1924**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
(a) Steup for test AC #62 Run B-94. (b) Abs. clr. cloths for #62 Run B-94. (c) Interior of ante chamber of #62 after Run B-94.

Box 66:21  
2195a 2195b  **Air Cleaner Studies 1924**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
(a) Setup for test of Midwest #59 - Run B-65. (b) Abs. Clr. Cloths #59 - Run B-65.

Box 66:21  
2209a 2209a'2209b  **Air Cleaner Studies 1926 Summer**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Heinss air cleaner tests. (a),(a') Screen partly clogged by dust. (b) Abs. Clr. cloth Heinss Cleaner. Slide is ordered of 2209-a-10-11-26. (a' only mounted).

Box 66:21  
2225  **Air Cleaner Studies 1926 October**  
Photographer: H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Dust caught in open-end tube inlets. Each inlet was in "std" test position for radiator fan type air cleaners during a normal test run. See project 400I report.
Box 66:22 2244a 2244b 2244c 2244d  Air Cleaner Studies 1926 September
   Photographer: H.
   Subjects and Indexing Terms
   .42571 Air cleaners
   Scope and Content Note
   Test of Spencer Cleaner No. 66. (d) Section sketch of Spencer Cleaner. (a) Set up for test
   (in rad. fan apparatus). (b) Abs. cleaner cloth run C-21. (c) Abs. cleaner cloth run C-21.

Box 66:22 2296a 2296b 2296c 2296e  Air Cleaner Studies 1926 November
   Photographer: Hoffman, A.H.
   Subjects and Indexing Terms
   .42571 Air cleaners
   Scope and Content Note
   Test of Bowden. (a) Bowden cleaner and parts. (b) Set-up for test. (c) Abs. clr. felt C-69.
   (e) rings of Bowden cleaner.

Box 66:22 2302a 2302a' 2302b 2302b'  Air Cleaner Studies undated
   Photographer: Hoffman, A.H.
   Subjects and Indexing Terms
   .42571 Air cleaners
   Scope and Content Note
   (a) and (a') air inlet facing forwards caught 3.5 time as much dust per mile as was caught
   when inlet faced backwards as in (b) and (b').

Box 66:22 2390a 2390b 2390c  Air Cleaner Studies 1926 October
   Photographer: H.
   Subjects and Indexing Terms
   .42571 Air cleaners
   Scope and Content Note
   Dust collecting on [vanes?] of Handy. (b and c) Absolute cleaner felts in tests of Handy
   Cleaner.

Box 66:22 2391  Air Cleaner Studies 1926 October
   Photographer: H.
   Subjects and Indexing Terms
   .42571 Air cleaners
   Scope and Content Note
   Radiator fan type air cleaner. #34 Wishon; 47 Turb Automatic; 48 and 48a Cyclone
   Automatic; 56, 56a, and 56b T. and M. Perfection; 63 Heinss; 67 Orem Motor Protector.

Box 66:22 2392a 2392b  Air Cleaner Studies 1926 October
   Photographer: H.
   Subjects and Indexing Terms
   .42571 Air cleaners
   Scope and Content Note
   Dust Sampler on Agricultural Engineering Division Car #73.
Box 66:22

2557a 2557b 2557c 2557c' 2557d **Air Cleaner Studies 1927 May**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note
Test of Bowden Air Cleaners. Old Exp. Lab. (a) Set-up for test - wind tunnel cover removed. (b) Pasteboard plates from cleaners Nos. 70 and 71 after Runs C-71 and C-72. (c) and (c'). Cleaner No. 71A disassembled after Run No. C-73. (d) Cleaner 69-A disassembled after Run C-74.

Box 66:22

2596a 2596b 2596c 2596d 2596e **Air Cleaner Studies 1927 October**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note
Test of Bowden (oiled postboard cleaner). (a) Insides of no. 71 before test; (b) same after; (c) same after 2 charges of dust fed in. (d) Inside of no. 72A after one test. (e) The set up for test (method for radiator fan type). (e') Same as other one.

Box 66:22

2597a 2597b **Air Cleaner Studies circa 1926**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note
Installation of Pomona on Extension Truck. This installation was removed when truck was turned in on a new one, Oct. 1927.

Box 66:22

2599a 2599b **Air Cleaner Studies, Zamora, California 1927 April 20**

Photographer: Stirniman, E.J.

Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note
Cleaner on engine if rotary plow demonstrated. Engine 6 cyl. 120 H.P. air cleaner was cylinder with seven bottom in oil. Cover had an oil seal (groove in top edge of eye.) Intake, high tube.

Box 66:23

2611a 2611b 2611c **Air Cleaner Studies 1927 December**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note
Bowden cleaner on C.E. Barbee's '28 Std. Buick. There was not enough room for the Bowden in the space occupied by "A.C." clr. regular equipment, to permit use of oil gauge rod.

Box 66:23

2613a 2613b **Air Cleaner Studies 1927 December**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note
Bowden Air Cleaner. (a) Installed on University Farm Ford no. 17 (Jacobson's) (b) Installed on University Farm Ford no. 16 (Dr. Hart's).
Air Cleaner Studies 1927 December

Box 66:23

2614a 2614b 2614c 2614d

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note
Leak of dusty air into line between air cleaner and carburetor. A dusty path extended from the leak along one side of the house (inside) to the end toward carburetor. Hose not overlapping metal far enough and clamp not tight enough. Dust entered between arrows (a) neg (b) End of hose at leak. (c) Hose split lengthwise.

Air Cleaner Studies 1928 January

Box 66:23

2620a 2620b

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note
Bowden Air Cleaner Parts. (a),(b),(c) after removed from Prof. Mead's Portair. (d) (e) late model parts efficiency test; shows greater effectiveness of the cut rings than of the bossed rings.

Air Cleaner Studies 1929 January

Box 66:23

2823

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note
Road test of restriction of adapter tube. The tube showed 1/2 as much restriction as cleaner, from 25 to 60 m.p.h.

Air Cleaner Studies 1928 April

Box 66:23

2653c 2653d

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note
(c) Tillots on dry centrifugal ((b) no filter) (See also 2813). (d) Air maze cleaner.

Air Cleaner Studies 1928 April

Box 66:23

2653a 2653b

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note
(a) Zenith (French) Air cleaner. (b) Bowden Air Cleaner. See also 2595a.
Series 1. Index to images 1915-1951

Box 66:23 2653e Air Cleaner Studies 1928 April
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note (e) A.C. Air cleaner.

Box 66:23 2660 Air Cleaner Studies 1928 May
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note
Midwest automatic rotating oil filter air cleaner. Rotation is by air pressure; connection is made to intake manifold.

Box 66:24 2702a 2702b 2702c 2702d Air Cleaner Studies 1928 Fall
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note Test of Air Maze #77. (a) Axis horizontal. (b) Axis vertical. (c),(d),(e) - Felts of absolute cleaner.

Box 66:24 2703 Air Cleaner Studies 1928 September
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note Dust passed thru air cleaner and caught in carburetor of Dodge Victory Six. Sent by R.H. Stalnaker from Oroville road camp of C.H.C. Oil vapors from valve case connection caused the balled appearance of the dust. 99.48 grams dry.

Box 66:24 2719a 2719b 2719c Air Cleaner Studies 1928 September
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note United Air Cleaner, etc. Cleaner pistons from C.H.C. lodge standard Six. Dust "taken from carburetor after 100 mile run," weighed 99.48 grams dry. After 3478 miles use cyls. rebored for .015" oversize pistons. See also #2742.

Box 66:24 2725a 2725b 2725c Air Cleaner Studies 1928 September
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note Test of United without rotor. (a) inlet away from fan. (b) inlet towards fan. (c) test of united with shield.
Box 66:24 2726a 2726b **Air Cleaner Studies 1928 September**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.A42571 Air cleaners
Scope and Content Note
Test of 2 Winslow cleaners. (a) Small dry centrifugal with ejector. (b) Small oily wire cleaner.

Box 66:24 2727a 2727b **Air Cleaner Studies 1928 October**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.A42571 Air cleaners
Scope and Content Note
Test of Winslow "Down-flo", (oily wire type). (a) Set-up for test. (b) felts of absolute cleaner after 12 1/2 grams direct feed tests.

Box 66:24 2728a 2728b **Air Cleaner Studies 1928 September**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.A42571 Air cleaners
Scope and Content Note
Test of Tillotson. (a) test with inlet of small cleaner towards fan. (b) test of cleaner with filter, inlet away from fan.

Box 66:24 2729a 2729b **Air Cleaner Studies 1928 July**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.A42571 Air cleaners
Scope and Content Note
Road Test of Bowden Cleaner. Cleaner pasteboards filled with "non-viscous liquid". Used Davis, California via Washington and New York to Britt, Iowa. 8465 miles June and July 1928. Net dry dust 14.000g. Dust per mile .0017 gram.

Box 66:24 2730a 2730b **Air Cleaner Studies 1928 July**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.A42571 Air cleaners
Scope and Content Note
Road test of Bowden Cleaner. Pasteboards oiled with Socony Medium. Used Britt, Iowa to Davis, California July 1928. Mileage 3685, net dry dust 11.500g. Dust per mile .0031 gram.

Box 66:24 2731 **Air Cleaner Studies 1928 September**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.A42571 Air cleaners
Scope and Content Note
A.C. dry centrifugal with cup and stove. Used in calibration of test apparatus used in test series C.
Box 66:25

2732a 2732b **Air Cleaner Studies 1928 October**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Test of Donaldson (tractor oil type). (a) Set-up for test. (b) Felts of absolute cleaner after 25 gram direct feed tests.

Box 66:25

2742 **Air Cleaner Studies 1928 October**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
United (no rotor) cleaner of Dodge Victory Six (1928), piston after "3 mos., 3478 miles use by C.H.C. between Oroville and road camp. Dust, 99.48 grams in beaker "removed from carburetor after 100 miles". Job was rebored and .015" oversize pistons put in.

Box 66:25

2748a 2748b 2748c 2748d 2748e **Air Cleaner Studies, 1809 C St., Sacramento, California 1928 November**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
At California Almond Growers Exchange Plant. (a) 1928 crop only in warehouse; note dust on sacks. (b) large amounts of dust on concrete floor after only a few hours work. (c) looking down upon air cleaner bank; cloth filter in steel shell. (d) Coarser shells blown out beyond tracks, separated, loaded on cars, sold to soap mfrs. for the oil content. (e) Dust nearly 2" thick on top of nuts in bin.

Box 66:25

2759a **Air Cleaner Studies 1928 November**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Inside of Bowden cleaner. After 7051 miles use on J.D. Miller Jr's Buick sedan. Dust per mile .001 gram. Miller reported "no effect on power or on gas-mileage".

Box 66:25

2767 **Air Cleaner Studies 1928 November**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Bowden on N.M. Tiske, Dodge Vic. 6.

Box 66:25

2768 **Air Cleaner Studies 1928 December**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Eddy (Spence patents).
Box 66:25

2769a 2769b 2769c **Air Cleaner Studies 1928 December**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Breather Cleaner. (a) Vortox. The flat-one has kinked wire and hair filter, rest hair. (b) Winslow Breathers and oil filler tubes. (c) Vortox and Winslow breathers.

Box 66:25

2769 **Air Cleaner Studies 1928 December**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Section of Pomona Breather Cleaner.

Box 66:25

2773 **Air Cleaner Studies 1928 November**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Test of Donaldson "Simplex" for ("Pontiac").

Box 66:25

2773a 2773b 2773c **Air Cleaner Studies 1928 Fall**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Test of Donaldson Automobile Simplex. (a) Set-up for tests of #97. (b) Surface of inlet after 75 grams dust fed into wind tunnel. (c) Felts from absolute cleaner.

Box 66:26

2774a 2774b **Air Cleaner Studies 1928 November**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Test of United without rotor, 4 slots. (a) Vertical position inlet facing up. (b) Vertical position inlet facing down.

Box 66:26

2780a 2780b **Air Cleaner Studies 1928 November**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Installation on automobiles. (a) Bennett air cleaner (and Kingston oil filter) applied to (b) United (without rotor, with four dust ejector slots) regular equipment on Chrysler Plymouth. Note that air inlet faces the fan.
Air Cleaner Studies 1928 November

Box 66:26

2781a 2781b 2781c
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Installation on automobiles. (a) A.C. cleaner on H and B Oldsmobile (b) United (with rotor) on Dodge Four 1928. (c) United (without rotor) on Chrysler four, 1927.

Air Cleaner Studies 1928 September

Box 66:26

2786d 2786e 2786f
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Tests of Bowden. Absolute cleaner felts. (See another mount for a, b, and c).

Air Cleaner Studies 1929 March

Box 66:26

2801 2802a 2802b
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Reed air cleaner. Loosely packed oily wire filter. The face shown is supposed to be down when placed for use.

Air Cleaner Studies 1929 April

Box 66:26

2807 2809a 2809b
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Beater of Dust Machine. #2807 Regular thresher teeth on cast steel cyl. in steel housing. Soil dried and sifted thru 1/4" mesh screen fed down air inlet tube. (Top view, upper portion removed.)

Set-up for test of Handy cleaners. (a) Return bend is used to get dust outlet tangential to air blast. (b) # 112 has no elbow.
Air Cleaner Studies 1928 Fall
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
#65 old style A.C. dry centrifugal. Used to calibrate. D-series test apparatus.

Air Cleaner Studies 1925 about
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Exploded Fordson Air Washer. A bit of calcium carbide was dropped into the air washer to enable starting on a cold morning. A back-fire burst the air cleaner shell.

Air Cleaner Studies 1929 January
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Sketches to show effect of position of air inlet on amount of dust taken in. (For use in bul. "Dust and the Auto Engine").

Air Cleaner Studies 1929 January
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Section sketch of Tillotson. By-pass valve is to open at high speeds. At low speeds cloth is to remove dust. See also 2653-C.

Air Cleaner Studies 1929 January
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Pasteboard rings of Bowden air cleaner, after test. Note the places where dust most adheres.

Air Cleaner Studies 1929 January
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Test of Tillotson no. 122. (a) D83 as in Durant; (b) D82 as generally used. (c) showing piezometer connection.
Box 66:27 2818a 2818b 2818c 2818d **Air Cleaner Studies 1928 Fall**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Test of cleaners (90 and 90A) AC oily copper strip. (a) AC oily copper strip #90. (b) Set-up for test. (c) Felts from abs. clr. (d) Felts from abs. clr. (not mounted).

Box 66:27 2819a 2819b 2819c **Air Cleaner Studies 1928 Fall**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Test of #114 Annis. (a) Cleaner #114 Annis. (b) Set-up for tests D 59 and D 60. (c) Abs. Cler. felts tests D 59 and D 60.

Box 66:27 2820a 2820b 2820c 2820d **Air Cleaner Studies 1928 Fall**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Test of #114 Annis. (a) Cleaner #114 Annis. (b) Set-up for tests D 59 and D 60. (c) Abs. Cler. felts tests D 59 and D 60.

Box 66:27 2821a 2821b 2821c 2821d **Air Cleaner Studies 1928 Fall**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Test of #114 Annis. (a) Cleaner #114 Annis. (b) Set-up for tests D 59 and D 60. (c) Abs. Cler. felts tests D 59 and D 60.

Box 66:27 2822a 2822b 2822c **Air Cleaner Studies 1928 Fall**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Test of #114 Annis. (a) Cleaner #114 Annis. (b) Set-up for tests D 59 and D 60. (c) Abs. Cler. felts tests D 59 and D 60.

Box 66:27 2823a 2823b 2823c 2823d **Air Cleaner Studies 1928 Fall**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Test of #114 Annis. (a) Cleaner #114 Annis. (b) Set-up for tests D 59 and D 60. (c) Abs. Cler. felts tests D 59 and D 60.

Box 66:27 2824a 2824b **Air Cleaner Studies 1928 December**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Vacuum effect of adapters tubes. (a) Bowden as finally placed - C.E.B. Buick. (b) first adapter tube used C.E.B. Buick.

Box 66:27 2825a 2825b 2825c 2825d 2825e 2825f 2825g **Air Cleaner Studies 1928 Fall**

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Visco Rotary #85. This cleaner is used on tanks and trucks of the British Army in India - designed for ruggedness and freedom from trouble due to extremes of temperature.
Dust feeding mechanism. Unless short, stiff bristles are used on the face of the wheel, centrifugal force swings the tips away from the end of the incoming dust column and permits chunks of dust to go in not finely brushed out.

Screen tests of standard dust #3. Condition of a 25 gram sample of #3 std. after 1 hour in Ro-Tap machine at 153 strokes per minute. Note flocculation into balls on all screens. After brushing nearly all the dust went through to the bottom pan. See 400-i report.

Set-up for E-series tests. (a) Winslow model M, #116. (b) H.W. Filtrator for Air, model N #117.

“Gordon” dry felt cleaner. (a) Set-up for test. (b) “Gordon” Air Cleaner.
Box 66:28 2836a 2836b **Air Cleaner Studies 1929 March**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
- .42571 Air cleaners

Scope and Content Note
Air Cleaner. "Imperial" no. 124 by H.B. Anglemeyer, Pomona #124-A. "Imperial" is same as #124 except 2 1/2 more filter thickness and height.

Box 66:28 2852a 2852b **Air Cleaner Studies 1929 March**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
- .42571 Air cleaners

Scope and Content Note
Tillotson std. dust after 1 hr. in ? brushing with varnish brush. In order respectively the dust that remained: on 200 mesh, on 250, on 270, on 300, on 325, and that passed 325 mesh screens. A 25 gram sample was used. Our #3 std. had no appreciable residue except through 325 mesh.

Box 66:28 2853 **Air Cleaner Studies 1929 March**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
- .42571 Air cleaners

Scope and Content Note
Test of Franco Cleaner. Test showed cleaner too low in efficiency and too high restriction to market.

Box 66:29 2922a 2922b 2922c 2922d **Air Cleaner Studies 1929 May**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
- .42571 Air cleaners

Scope and Content Note
Imperial Cleaner's, H.B. Anglemyer, Pomona. (a) Larger Imperial assembled. (b) Extra deflector and exhaust jet element. (c) Set-up for test of cleaner #132. (d) Set-up for #130.

Box 66:29 2924a 2924b 2924c **Air Cleaner Studies 1929 June**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
- .42571 Air cleaners

Scope and Content Note
Expanded metal filter. Parts of 1st Midwest Filter Corp. air cleaner sent us.
Air Cleaner Studies 1929 June 11

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Gordon (dry felt) air cleaner. These cleaners bear the same name as the Gordon sponge rubber cleaner of 1924 test series, and are made by the same company.

Air Cleaner Studies 1929 June

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Section Sketches. (a) Protectomotor. (b) Pomona, (c) Visco Rotary, (d) Winslow Down-Flo. (e) Remington Helicoid.

Air Cleaner Studies, Exp. Lot, Agricultural Engineering Building 1929 June

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
E- series test of a dry centrif ejector. The cleaner fits tightly in a hole in the end of the tin cylinder. The dust is placed in the cylinder and hand brushed by a feather duster until all enters the cleaner inlet. The portion of cleaner having the ejector slots extends through into an open carton from which the dusty air is withdrawn by a vacuum cleaner.

Air Cleaner Studies 1929 August

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Bowden air cleaner after road use. Cover plate bulged due to back-fire. Looseness caused fluttering of top 3 or 4 rings. They were practically free of dirt and had polished parts of shell. Mileage 13095, dust caught grams.
Box 66:30  2996  **Air Cleaner Studies 1929 July**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
An unsuccessful attempt to get a visible record showing the difference as to dust encountered when carburetor inlet is forward, rearward, upward, downward, outward, or inward.

Box 66:30  2997  **Air Cleaner Studies 1929 June**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Special vacuum test. The greater care was taken to get inside of piezometer tube continuous with outlet tube cleaner and piezometer ring very close to cleaner to minimize errors.

Box 66:30  3014a 3014b  **Air Cleaner Studies 1929 October**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Vacuum - Road speed curves. See later re-drafts Neg. 3024.

Box 66:30  3015a 3015b  **Air Cleaner Studies 1929 Fall**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Test of Case (Tractor) cleaner no. 140. New improved with screens instead of hair for filter. Note the plain "Warning".

Box 66:30  3016a 3016b  **Air Cleaner Studies undated**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Test of Miller Cleaners. Vacuum from intake manifold connection lifts oil to wash filter.

Box 66:30  3020  **Air Cleaner Studies 1929 Fall**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Condition of a dry centrifugal after use. Cleaner AC. off Chevrolet Nation CHC. #2707 after 25000 miles.
Box 66:30 3024a 3024b 3024c 3024d  **Air Cleaner Studies 1931 January**

Photographer: Weston, drawn by Lynde  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Road tests of vacuum. (a) Oily filter type. (b) Dry type. (c) Cleaners designed for Model A Ford (The curves show maximum speed obtainable with the machine used with no carburetor adjustment on a level road.) (d) Effect of vacuum or power (Berkeley tests of 1922.)

Box 66:30 3023a  **Air Cleaner Studies 1929 November**

Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Loose (or open) oily filter type cleaner. 125 (for Ford A) and 136 (for Buick 28-20) National, curled hair; 97 (for Pontiac) Donaldson Simplex, fiber; 138 (for Ford A) and 77 (for ) Air-Maze, wire screen; 90 AC, copper ribbon; 145 AC Triplex Heavy Duty, wire screen; 108 Winslow Down-Flo, wire screen; 144 Winslow wire screen; 123 Reed oily wire. See better one taken on glass 3044.

Box 66:30 3023b  **Air Cleaner Studies 1929 November**

Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Dry Filter Type Cleaner. 114 Annis, felt; 119 Protectomotor, felt; 74 Eddy, hair; 42 Gordon, rubber sponge; 66 Zenith (French), felt tubes; 133, 134 and 135 Gordon, thick felt; 75 Tillotson, centrifugal and cloth.

Box 66:30 3023c  **Air Cleaner Studies 1929 November**

Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Dry centrifugal type cleaner. 65 AC, collector, with stove; 65-A AC, collector; 88 and 89 AC, ejector; 75 Tillotson, collector, with filter for slow speeds; 76 and 122, Tillotson, collector; 112 and 111 Handy ejector; 109 United, with rotor, 95 and 94 United (for Chrysler), no slots (dust is to drop out through the air inlet openings); 110 United with 4 ejector slots; 118 United (for Ford A), with 4 ejector slots.

Box 66:31 3023d  **Air Cleaner Studies 1929 November**

Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Self-washing oily filter type. 59 Midwest, revolving steel plate; 108 Winslow Down-Flo, wire screen with oil reservoir and crankcase connection; 124-A Imperial, steel wool, with connection to exhaust manifold; 84 Winslow Purifier, with filler tube and crankcase connection, 96, 93, 115, 92, and 91 Vortox (formerly Pomona), steel wire; 144 Winslow, wire screen, with crankcase connection.
Box 66:31 3023e 3023e' Air Cleaner 1929 November
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Oily pasteboard type and others. 39 and 40 Donaldson Simplex, close packed oily fiber filter; 78 and 79 Remington, helicoidal oily surface; 72, 129, 146, 98, 128, and 143 Bowden, oil saturated pasteboard; 36 and 38 Bennett, close packed oily fiber filter and dry centrifugal.

Box 66:31 3025a 3025b Air Cleaner Studies 1930 January
Photographer: Weston, tracing by Lynde
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Section views of case and Vortox cleaner. (a) Self-washing oily screen type cleaner of Case Tractor. (b) Vortox (formerly, Pomona) self-washing, oily wire filter type cleaner.

Box 66:31 3026a 3026b 3026c Air Cleaner Studies 1930 January
Photographer: Weston, drawing by Lynde
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Settling tests of dusts used in fair cleaner testing. (a) Dust settling in a 6” D. x 30’ pipe line. (See project 400-I reports 1929-30) (b) Lengths of lines proportional to the difficulty a dry centrifugal cleaner would have in handling these dusts. (c) Apparatus to produce dust of satisfactory fineness.

Box 66:31 3027a 3027b 3027c Air Cleaner Studies, University Farm 1929 December
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Midwest self-washing oily plate type. (a) and (a’) - Front view. Note dry dust outlet valve and sludge drawer. (b) View of interior inlet screen raised. (c) View of rotor. Note curvature of elements.

Box 66:31 3028 3028' Air Cleaner Studies 1930 January
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Morse air cleaner. Cleaner on left for model A Ford Filter element is of thin cloth (somewhat resembling cotton flannel) between two cylinders of hardware cloth.

Box 66:31 3031 Air Cleaner Studies 1930 January
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Morse air cleaner. Cleaner on left for model A Ford Filter element is of thin cloth (somewhat resembling cotton flannel) between two cylinders of hardware cloth.
Box 66:31

3033 **Air Cleaner Studies 1930 January**

Photographer: Weston

Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note

Functional diagram of Vortox. From (modified) chart used for instruction of tractor operators in Russia and other countries. Explanation in sheet in envelope.

Box 66:31

3044 **Air Cleaner Studies 1930 February**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note

Oily pasteboard, close packed filters, metal surface. Bennett dry centrifugal and fiber, 36, 38; Bowden pasteboard, 129 (Buick), 147 (Chrysler "70"), 92, 128, 143, 146, 150 (Mod. A Ford); Donaldson Simplex fiber, 39, 40; Donaldson fiber (tractor), 113; Remington helicoidal surface, 78, 79.

Box 66:31

3044a 3044a' **Air Cleaner Studies 1930 February**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note

Low restriction, oily filter type cleaners. AC copper strip, 90 and 154 (for Graham-Paige); AC Triplex, wire screen, 145; Air-Maze, wire screen, 77 (Mod. 3 ST), 138 (for Mod. A Ford), 148 (for '30 Chrysler "70"); Donaldson, fiber, 97 (for Pontiac); National, curled hair, 125 (for Mod. A Ford), 136 (for '28 Buick); Reed, kinked steel wire, 123; Winslow Down-Flo, dry centrifugal and self-washing screen, 108; Winslow, dry centrifugal and self-washing screen, 144. See also 3023-A.

Box 66:32

3044b 3044b' **Air Cleaner Studies 1930 February**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note

Dry Filter Type Cleaner. Annis, felt, 114; Eddy (Spencer), hair, 66; Gordon, felt, 133, 134, and 135; Gordon, rubber sponge, 42; Morse, cloth, 151 and 152; Protectomotor, felt, 119; Tillotson, dry centrifugal and cloth, 75; Zenith (French) dry centrifugal and felt, 74.

Box 66:32

3044c 3044c' **Air Cleaner Studies 1930 February**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.42571 Air cleaners

Scope and Content Note

Dry centrif type cleaner. AC collector with stove, 65; AC collector, 65-A; AC ejector, 88 and 89; Handy ejector, 111 and 112; United with rotor, 109; United with 4 slots, 118 (for Ford Mod. A) and 110; United without slots, 94 and 95.
Box 66:32 3044 Air Cleaner Studies 1930 February
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Self-washing oily filter and surface types. Imperial steel wire (has connection to exhaust), 124-A; Midwest steel plate, 59 and 149; Miller steel wool (has connection to intake manifold), 153; R. and H. steel wool, 155; Visco Rotary (English) steel plate, 85-A; Vortox steel wire and oil centrifugal, 91, 92, 96; Winslow Down-Flo wire screen and dry centrifugal, 108; Winslow Purifier fiber, 84; Winslow wire screen and dry centrifugal, 144.

Box 66:32 3053 Air Cleaner Studies 1930 March
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Group of breather caps. Winslow (upper two) and Vortox (lower) breather caps.

Box 66:32 3056 Air Cleaner Studies 1930 April
Photographer: Weston (from cut)
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Remington helicoid. Oiled by crankcase vapors. This one has removable helicoid. Another one has a fired helicoid with fluted surfaces. The condensed vapors tend to go on into carburetor.

Box 66:32 3057 Air Cleaner Studies 1930 March
Photographer: Weston from tracing by Scribner
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Winslow #144, Self-washing oily screen.

Box 66:32 3058 Air Cleaner Studies 1930 April
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Miller self-washing. This cleaner has no oil lift, operated by connection to intake manifold.
Box 66:32

3070  **Air Cleaner Studies 1930 April**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Dry type cleaners used in Buick road test of vacuum.

Box 66:32

3071  **Air Cleaner Studies 1930 April**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Oil type cleaners used in Buick.

Box 66:33

3072  **Air Cleaner Studies 1930 April**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Cleaners used on Mod. A Ford in road test of vacuum.

Box 66:33

3073  **Air Cleaner Studies undated**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
United "Absolute"? Cle. #157 was sent us by mfr. for test purposes. Unmarked. It appears to be identical with the "United Absolute" advertised in March 1930 "Motor Power."

Box 66:33

3077a 3077b  **Air Cleaner Studies 1930 April**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Bottom of case air cleaner after tests. Shows that in a test without jarring and jolting the oil (Zerolene 5) did not flow up onto the filter screens.

Box 66:33

3081  **Air Cleaner Studies 1930 June**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Earnest curled metal strip filter. Cleaner loaned by Mr. Stalnaker of California Highway Commission.

Box 66:33

3089  **Air Cleaner Studies, Charles City, Iowa 1930 June**  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
On Hart-Parr Row Crop Tractor. This is a new loosely packed Donaldson oily fiber filter with a high stack and a dry centrifugal at the top.
Box 66:33 3116 **Air Cleaner Studies 1930 July**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note
Annis air cleaner for 50 cu. ft. 1 min. Partly disassembled. The felt bags are made in sets to be drawn over wire frames and clamped down by the aluminum grids and iron bars shown.

Box 66:33 3117 **Air Cleaner Studies 1930 July**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note
Earnest air cleaners. Left Model C-3 (for Buick); right, Model F (for Model A Ford); middle, extra filter element (same for both models).

Box 66:33 3118 **Air Cleaner Studies 1930 July**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note
Bowden for Model A Ford. This latest model has a pasteboard guard ring at the top of the filter to prevent leakage of dusty air past top ring of filter and new head with larger throat.

Box 66:33 3123a 3123b 3123c 3123d 3123e 3123f **Air Cleaner Studies 1930 July**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note
C.R.C. Air Cleaner. Oily surface type. (a) No. 3 assembled; (b) No. 5, tractor type (on left) No. 3 disassembled on glass.

Box 66:33 3130a 3130a'3130b **Air Cleaner Studies 1930 September**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note
United "Absolute." Cleaner sent us by the Latham Co.

Box 66:34 3131a 3131b 3131b' **Air Cleaner Studies 1930 September**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42571 Air cleaners
Scope and Content Note
Hinkle. Made by R.V. Hinkle, Pendleton, Oregon.
Box 66:34 3132a 3132b **Air Cleaner Studies 1930 September**
Photographer: Weston, E.W. (from cut)
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Ellis Self-washing oil filter.

Box 66:34 3188 **Air Cleaner Studies 1930 December**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
C.R.C. No. 182 Model #220.

Box 66:34 3208a 3209b 3209c **Air Cleaner Studies 1931 January**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Aero Moto Booster Cleaner. (a) Complete Cleaner and 2 sectional parts. (b) Section. (c) View from intake end of section.

Box 66:34 3225a 3225b **Air Cleaner Studies 1930**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Ellis. See Bul. 499, nos 168, 170 and 171.

Box 66:34 3547 **Air Cleaner Studies, Chemistry Building 1932 July**
Photographer: Weston, E.W.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Moisture Train.

Box 66:34 3548 **Air Cleaner Studies, Chemistry Building 1932 July**
Photographer: Weston, E.W.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Combustion apparatus for analyzing. Asbestos filter deposits of smoke. From Project 400-U.
Box 66:34 3914b  Air Cleaner, A.E. Bldg. 1935 April 26
Photographer: Brooks, Frederick A.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Dust in Sedimentation chamber center window. Exposure #10 photo flash lamp in Balloptian without small lens with Karona Camera wide open (under exposed).

Box 66:34 3914  Air Cleaner 1935 April 26
Photographer: Brooks, Frederick A.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Dust in Sedimentation chamber center window. Exposure #20 Photo flash lamp in Balloptian without small lens with Karona Camera Wide open (under exposed).

Box 66:35 3912  Air Cleaner 1935 April 23
Photographer: Brooks, Frederick A.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Photomicrograph of dust collected for 1 hour at center of chamber (high dry objective and Normal III). Dark filled condenser crafts 6v light, bright focal Plane, 90 secs. exposure (under exposed).

Box 66:35 3862  Air Cleaner Tests 1935 July
Photographer: Brooks, F.A.
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Proj. 400-I. Photomicrograph of dust sample drawn at entrance to sedimentation chamber while flow was stopped. Focused on small particle.

Box 66:35 3730  Effect of Water on Felt Cloth Air Cleaner, Davis 1933 March
Photographer: Weston
Subjects and Indexing Terms
.42571 Air cleaners
Scope and Content Note
Cleaner No. 119. Test #324 (a), (b) and C.
3731  Change of restriction with variable dust feed, Davis 1933 March  
Photographer: Weston  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Cleaner No. 220 Test No. 320 E.S.H and J.

Box 66:35 4094a 4094b  Air Cleaner Project 400-I 1936  
Photographer:  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Dust.

Box 66:35 4095a 4095b  Air Cleaner Project 400-I undated  
Photographer:  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
Getting dust.

Box 66:35 5607  Air Cleaner, Davis 1943 February 23  
Photographer: Barbee, C.A.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
New dust feed - for army testing. No image on index card.

Box 66:35 2861  Air Cleaner Studies 1929 May  
Photographer: Hoffman, A.H.  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
(a) Winslow "Purifier" air cleaner crankcase ventilator and oil filler combination. (b) Bowden for Mod. A. Ford (April 1929). (c) Case tractor cleaner (April 1929).

Box 66:35 2868a 2868b 2868c  Air Cleaner Studies 1929 April  
Photographer:  
Subjects and Indexing Terms  
.42571 Air cleaners  
Scope and Content Note  
(a) Winslow "Purifier" air cleaner crankcase ventilator and oil filler combination. (b) Bowden for Mod. A. Ford (April 1929). (c) Case tractor cleaner (April 1929).

Box 66:35 Fresno Track Attachment, California 1924  
Photographer:  
Subjects and Indexing Terms  
.42573 Traction devices
Box 66:35

3667a 3667b 3667c 3667d 3667e Pneumatic Tires for Tractors, Field West of Agricultural Engineering Building, Davis 1933 March

Photographer: Moses, B.D.

Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note

G.P. John Deere Tractor with Rubber tires in mud. (1) Going through sink filled with water just made it, (2) Same, (3) Trail left by tractor going through mud, (4 and 5) Condition of tires after passing through mud.

Box 66:36

3736a 3736b 3736c 3736d Rubber Tires vs. Steel Wheels for tractors, Agricultural Engineering Building 1933 August 1

Photographer: Moses, B.D.

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note

Character of soil used in testing Rubber tires. (a) Shows how the ground broke up with chisel 10 to 16" deep. (b) Same as (a). (c) and (d) shows character of soil before chiseling in the foreground and after working in background. That in foreground shows the kind of traction presented to tractor wheels.

Box 66:36

3739a 3739b Rubber Tires on John Deere G.P. Tractor, Davis 1933 September 2

Photographer: Moses, B.D.

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note

Testing h.p. and fuel consumption. For details of performance see Rubber Tire project 400D. Trost driving, measuring fuel by timing gasoline running from calibrated flask. 113cc - Moses riding on platform, timing Iowa dynamometer.

Box 66:36

2921 Traction Device, Wallace Trust Estate, Fresno, California 1929 May

Photographer: Moses, B.D.

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note

Wheelbarrow. Motorcycle wheel used.

Box 66:36

2574 Standard Fordson Wheel, University Farm 1926 Summer

Photographer: McKibben, E.G.

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note

See Project 400-R, page 43.

Box 66:36

2576 McLaughlin Wheel, University Farm 1926 Summer

Photographer: McKibben, E.G.

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note

See Project 400-R Page 43.
Box 66:36  2578 McCormick Deering Lugs, University Farm 1926 Summer
Photographer: McKibben, E.G.
Subjects and Indexing Terms
 .42573 Traction devices
Scope and Content Note
See Project 400-R Page 44.

Box 66:36  2575 Hamilton Spade Lug, University Farm 1927 Summer
Photographer: McKibben, E.G.
Subjects and Indexing Terms
 .42573 Traction devices
Scope and Content Note
See Project 400-R page 43.

Box 66:36  2572 Lug Testing, University Farm 1926 Summer
Photographer: Fletcher, L.J.
Subjects and Indexing Terms
 .42573 Traction devices
Scope and Content Note
See Project 400-R page 41.

Box 66:36  2854a 2854b 2854c Tractor Lugs and Fire Flanges 1929 March
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
 .42573 Traction devices
Scope and Content Note
Showing worn lugs that injure paving. (a), (b), (c) - Showing how wear sometimes makes highly destructive chisel points on lugs.

Box 66:36  2854d 2854e Tractor Lugs and Fire Flanges 1929 March
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
 .42573 Traction devices
Scope and Content Note
Showing worn lugs that injure paving. (d) a destructive fire flange. (e) Wheels with lugs.

Box 66:37  2800 Model for studying side draft, Kansas 1927 June
Photographer: Moses, B.D.
Subjects and Indexing Terms
 .42573 Traction devices
Scope and Content Note
Built in lab at State College for studying side draft.

Box 66:37  Tractors, University Farm 1921
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
 .42573 Traction devices
Scope and Content Note
Device for illustrating side-draft.
Tractors and Hitches, Fremont, Nebraska 1917

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note
N.W. Tractor Demonstration. (1 and 2) - Pioneer special - one rear wheel. (3 and 4) - Case hitched to binder with line control.

Tractors and Hitches, Fremont, Nebraska 1917

Photographer: Stirniman, E.J.
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note
Tractor Demonstration. (1) Eagle Tractor and Power Lift. (2) Common sense, one wheel rear. (3) Eagle

AE 270 Tractor Hitches 1920 February

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note
Plowing and harrowing combination.

AE 301 AE 302 Tractor plowing and Hitches, Swingle Ranch 1920 January

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note
(301) Plain tractor hitch. (302) Tractor plowing - Hauling gangs.

220 225 Tractor Hitches, George Haussler Ranch 1919 November 13

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note
(a) Pierce type Harrow Cart and Haussler A Harrow Hitch. (b) Lift Type Harrow Cart with Haussler A Harrow Hitch Width 45' as shown.

889a 889b 889c Parker Safety Hitch 1921

Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note
Test to find loads at release, steady pull and jerk.

816 816b Tractor Hitches undated

Photographer:
Subjects and Indexing Terms
.42573 Traction devices
Box 66:37 820 Tractor Hitches undated
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note
Rigid clutch - no free link.

Box 66:38 624 658a 658c Tractor Hitches 1921
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note

Box 66:38 350 Tractor Plowing, University Farm, Davis 1920
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note
Side draft to left eliminated by running one wheel in the furrow.

Box 66:38 Tractor Hitches, Conaway Ranch undated
Photographer: Hoffman, A.H.
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note
(a) Harrow cart - 65' between side wheels. (b) Boom of harrow cart.

Box 66:38 481 Horse Hitches undated
Photographer:
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note
Eveners for combined Harvester.

Box 66:38 Tractor Hitch undated
Photographer:
Subjects and Indexing Terms
.42573 Traction devices
Scope and Content Note
Crossed Chain Hitch.
Box 66:38 **Tractor Hitches 1921**
Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note
Model for studying side draft.

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Box 66:38 **Tractors undated**

Photographer:

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note
Drawbar.

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Box 66:38 **Untitled undated**

Photographer:

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note

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Box 66:38 **Tractor Hitches, U.F. 1922**

Photographer: Hoffman, A.H.

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note
Ashley Chain Hitch Bar for backing plows, etc.

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Box 66:39 **Tractor Hitches undated**

Photographer:

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note
Adjustable drawbar.

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Box 66:39 **Tractor Hitches undated**

Photographer:

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note
Chain lessens down draft on forecarriage.

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Box 66:39 **Tractor Hitches undated**

Photographer:

Subjects and Indexing Terms
.42573 Traction devices

Scope and Content Note
Tractor type of fore-carriage.
632 625a 625b  **Tractor Hitches, Davis 1922**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42573 Traction devices
Scope and Content Note Close hitch and lengthened hitch.

857 **Tractor Hitches 1920**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42573 Traction devices
Scope and Content Note Force Diagram, see chain hitch.

Box 66:39

857 **Tractor Hitches; Plows and Plowing, Merritt Ranch 1919 November 13**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42573 Traction devices
Scope and Content Note (218) Plowing around turn, common bar hitch. (226) Common bar hitch.

Box 66:39

**Tractor Hitches, Montgomery Ranch 1919 October**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42573 Traction devices

Box 66:39

277 280 **Tractor Hitches, Ranch of F.B. Grieve, West of Dixon, California 1920 January 19**
Photographer: Hoffman, Hoffman, A.H.
Subjects and Indexing Terms .42573 Traction devices
Scope and Content Note (a and b) Swivel wheel Harrow Cart made by M. Carpenter, Dixon, California.

Box 66:39

AE 273 AE 274 **Tractor Hitches, West of Davis, George W. Pierce Ranch 1920 January**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42573 Traction devices
Scope and Content Note Original George W. Pierce Harrow Cart. In use since 1915.

Box 66:39

229 284 **Tractor Hitches, Merritt Ranch 1919 November 12**
Photographer: Hoffman, A.H.
Subjects and Indexing Terms .42573 Traction devices
Scope and Content Note (a) Common hitch on the Merritt Ranch. Note swinging drawbar. (b) Common Bar Hitch (Alvin Sykes).
Series 2. Negatives circa 1915-1951

Physical Description: 7.6 linear feet

Scope and Content Note

Contains negatives of the images described in the index to images. However, not all of the images in the index have an associated negative.