



MG 108 -- H.A. Lewis fonds

Dates: 1899-1989 (inclusive); 1923-1962 (predominant).

Extent: 2.2 m of textual and photographic records.

Biography: Hartford Allan ("Hal") Lewis was born in Wolseley, Saskatchewan on 13 May 1905. Lewis initially enrolled at the University of Saskatchewan in 1922, intending to become a dentist; but after two years in the pre-medical course, he transferred to agricultural engineering, convocating in 1928. In 1939 Lewis accepted his first appointment as a sessional lecturer with the Department of Agricultural Engineering. From 1939 until his retirement in 1962, Lewis divided his time between teaching at the University and farming near Grey, Saskatchewan.

Scope and Content: This fonds contains material pertaining to the research and instructional activities of the University's Agricultural Engineering Department. Specifically, it provides excellent documentation on the development of agricultural machinery and agricultural practices in the Canadian west.

Arrangement: This fonds is organized into 4 series:

	Pages
I. Western Canada Pictorial Index;	2
II. Agricultural Machinery/Farming techniques;	2
III. University of Saskatchewan;	28
IV. Miscellaneous.	32

Custodial History: Many of the items in this collection were originally owned and used by Professors A.R. Greig and E.A. Hardy of the University of Saskatchewan College of Agriculture.

Restrictions: There are no restrictions on access.

See also Faculty Biographies; University Publications Collection [Engineering – Agricultural Engineering].

Finding aid created by Patrick Hayes in 2015; Modified in 2017 by Cheryl Avery and Stevie Horn to conform to standards.

Box 1

I. Western Canada Pictorial Index. - 1987-1989. - 1 folder textual records + 3 folders of 416 slides.

This series contains correspondence, a slide list and 416 slides pertaining to the Western Canada Pictorial Index duplication of Mr. Lewis's photograph collection.

1. Correspondence. - 1987-1989.

2. Slides. - 1987-1989. - 3 folders.

II. Agricultural Machinery/farming techniques. - 1899-1987.

This series contains correspondence, notes photographs, negatives, pamphlets, articles, clippings, photocopies and reports pertaining to machinery and farming practices in Western Canada.

A. History of agricultural machinery/farming techniques. - 1926-1977.

1. *Agricultural Machinery Administration (AMA) Test Reports.* - 1959-1961.

2. Tractor history. - 1928-1977.
Notes, lists, clippings and articles.

3. Combine history. - 1927-1982.
Notes, lists, clippings and articles. Includes harvesting time for one acre, 1828-1982 and the *Combine yearbook* of 1929.

4. Plow, cultivators and disc harrow history. - 1942-1964.
Correspondence. article, notes, drafts and lists pertaining to the development on a global and local scale. There is also a blueprint of tractor hitch harrows produced by the U of S Agricultural Engineering Department.

5. Miscellaneous. - 1927-1952. - 3 folders.
Articles pertaining to history of the wheel, steam engines, motor cars, Department of Agriculture Engineering Extension, harvest excursions and

prairie farming.

Box 2

6. Header barges. - 1932-1936.

Correspondence, manufacturer fliers, articles and design drawings pertaining to header barges and stackers.

7. Twine. - 1931.

Article from *Canadian Farm Implements*.

8. Snow vehicles. - 1936-1984.

Promotional material, articles and clippings.

9. Batteries and wind chargers. - 1933-1946.

Promotional material, articles and clippings.

10. Grain cleaning. - 1927-1960. - 2 folders.

Promotional material, correspondence, radio script and articles.

11. Automobiles. - 1966-1970.

Clippings, articles and calendars.

B. Farm machinery historical photographs. - nd, 1927-1950.

1. One-way disc harrow. - nd, 1927-1950.

. 1 Homemade disc harrow. - ca. 1927. - 4 photographs.

. 2 Emerson combined disc and seeder. - [1920's].

. 3 R.A. Johnston's 1st machine, Beadle, Sask. - 1945.

. 4 A.L. Mckinnon - Regina. - 1946. - 3 photographs.

Regina clay.

. 5 Floyd Ganshorn - Regina. - 1946. - 4 photographs.

. 6 Gregg one-way disc-harrow. - ca. 1950. - 3 photographs.

. 7 Fred Snyder - Eston. - 1946-1947. - 8 photographs.

Sold his design rights to American Harvester Co. Also spelt Schneider.

. 8 Hitching for One Way Discs and Diskers. - nd. - 10 photographs.

Various hitches used in Saskatchewan.

. 9 McCormick Deering tractor and IHC discer. - 1933.

First model of IHC one way in Canada. D.J. Birmingham, Saskatoon.
Photo by Steele.

- . 10 Hitch too high on one-way. - nd.
- . 11 Lumpy conditions after one-way discing. - nd.
- . 12 Mouldboard ploughing and one-way discing. - 1940.
Melford experimental farm.
- . 13 Stand of wheat from one-way disc seeding. - nd.
- . 14 Trash cover on one-way discing. - nd.

2. Discers - Lewis farm. - nd, 1946-1950.

Photographs and the pamphlet *Questions and Answers About C.C.I..L.*
Discers manufactured or tested on the Lewis farm.

- .1 1st Handmade Coop Discer. - 1946. - 10 photographs.
- .2 Coop Discer. - 1946-1949. - 2 photographs.
- .3 First discer tryout on the Kindersley tests. - 1946.
- .4 Heavy duty cultivator work in the clay soil. - nd.
- .5 Coop discer seeding stubble. - 1950.

3. Discers developed at Kindersley. - nd, 1944-1946.

- .1 Field day held at Kindersly. - 1945. - 3 photographs.
First successful homemade discer studied by the Agricultural
Engineering Department.
- .2 Les Wyman discer. - 1945-1946. - 18 photographs.
- .3 M.G. Cressman - Kindersly. - nd.
First unit to be fitted with a seeding attachment.
- .4 R.A. Johnston's 1st machine, Beadle, Sask. - 1943-1945. - 4 folders.

4. Two discer hitch. - 1920-1950.

- . 1 Stevenson Brothers of Richleu, Saskatchewan use a D6 Catipilar to pull two John Deere 20 foot surflux discers. - 1946. - 5 photographs; 4 negatives (nitrate).
- . 2 Merle Boesch Farm at Riceton use an International TD 18 Trac Tractor pulling two discers seeding. One Massey Harris Wide Level disc and one Co-op Implement Disker. - 1949-1950. - 7 photographs.
- . 3 Multiple implement hitches for large tractors. - 1920-1945. - 8 photographs.

5. International Harvester and Coop. - 1948.

- .1 International Harvester Co. - 3 photographs.
- .2 Russell Tyke - Sceptre. - 2 photographs; 1 negative (nitrate).

.3 Coop - Duguid - Eston. - 2 photographs.

6. Lignite coal surface mining - Estevan. - nd. - 3 photographs.
Photos Truax-Traer Coal Co., Ltd.

7. Miscellaneous discers and packers. - nd, 1911-1954.

.1 W.H. (Bill) Foster - Abernethy. - 1947. - 4 photographs.
Co-op discer Allis Chalmers "U" Tractor.

.2 Russell Clarke - Eston. - 1946. - 3 photographs.
Prof. Evan Hardy checks a two wheel design homemade discer.

.3 Cockshutt Disker. - 1947. - 2 photographs.
One of the earliest machine companies to enter the discer field.

.4 Plow and Pony Press drill - Asquith. - nd, 1930. - 4 photographs.

.5 John Deere surflux discers. - 1949.

.6 John Deere discer - Beadle. - nd. - 8 photographs.
An international tractor pulls two John Deere discers.

.7 Six foot one way discer - Floral. - 1938.
Eight mules pull. Line of draft from centre of disc to centre of team.

.8 Caterpillar D2 and unknown discer. - nd.

.9 Flexi-coil. - 1945-1954. - 15 photographs.
Early models of Flexi-coil land packers and depth control attachments for seed drills developed by August Summack and sons of Delisle in the mid 1940s. Also Emmerson Summack at Asquith.

.10 Massey Harris tractor and discer. - 1949.
101 tractor and one-way disc with crowfoot type packer. Seeding width 8 ½ feet. University Farm outfit.

.11 Case tractor and 8 ½ one-way discer. - 1940.

.12 A 15 foot home built discer. - 1946.
"A Saskatchewan farm scene".

.13 Massey Harris Canada. - nd

.14 Unidentified discers. nd. - 2 photographs.

.15 McCormick-Deering tractors and discers. - 1929. - 6 photographs.
Wilson brothers Lake View farm at Harris. Photos by Steele of Saskatoon.

. 16 Caterpillar D4 and unknown discer. - 1937-1938. - 3 photographs.
Photos by Caterpillar.

. 17 An International tractor pulls McCormick-Deering new wide level

- discers. - 1958. - 2 photographs.
- . 18 Massey Harris - W.H. Foster, Abernethy. - 1941.
Home-made V wheel packer behind a one way disc.
 - . 19 John Deere D Tractor and Case one way. - 1925.
 - . 20 Tractor pulling packer - Fred Schneider.- Eston. - 1953. – 3 photographs.
Also spelt Snyder.
 - . 21 Home-made power takeoff driven rod weeder. - 1925-1926. - 3 photographs.
Eston.
 - . 22 Crowfoot type packer. - nd. - 2 photographs.
The old flat faced crowfoot type packers were not good for use in clay soil. This picture illustrates severe soil plugging requiring dissembly for clean out.
 - . 23 Packer on clay soil. - 1930. - 6 photographs.
Horse and tractor pulled.
 - . 24 Packer on loam soil. - 1930.
 - . 25 Crowfoot sub-surface packer behind a one-way disc. - nd
Wallis tractor and Massey Harris one-way.
 - . 26 Home-made disc packer for one-way discing. - nd.
 - . 27 Massey Harris - W.H. Foster, Abernethy. - 1944. - 2 photographs.
Home-made hitch to lower the line for draft on a one-way.
 - . 28 John Deere plow packer with sub surface wheels. - 1926.
 - . 29 Case DC4 tractor and 6 ft wide double disc-harrow. - 1949.
Case field demonstration.
 - . 30 No 20 Dempster Furrow Seeding Machine. - 1920. - 5 photographs.
Furrow seeder and fields after crop has emerged.
 - . 31 Massey Harris tractor and seed drill. - 1919.
 - . 33 Massey Harris double disk open seed drill. - 1928.
 - . 34 Cockshutt double disk open seed drill. - nd.
For use in heavy clay soil.
 - . 35 Cockshutt one way and packer behind a tractor. - 1935.
 - . 36 45' truck tire on 8" spacing. - 1953.
Prof. Oliver Symes inspecting to home-made packer, six miles north of Snipe Lake. Too much pulverization to be effective.
 - . 37 Mogul 25-45 hp tractor hitched to 28 foot disc harrow. - 1918.
 - . 38 3 Mogul 25-45 hp tractors hitched to 55 Oliver plows. - 1911.

8. Straw buncher. - 1946. - 6 photographs.

9. The Header Barge in Saskatchewan. - nd, 1930-1943.

During the short strawed crops of the thirties many farmer developed and built header barges to harvest their crops. Barge stacks were dumped in rows to be thrashed through hand feeding a combine that came to the stacks or by transporting the stacks by home built stack loaders.

- . 1 Tilt bottom barge and stacks at Conquest. - 1936-1937. – 6 photographs.
- . 2 Nu Way header stacker. - 1930.
Never gained any general acceptance.
- . 3 Binder attachment for use as a header - Swift Current. - nd.
- . 4 Threshing stacks with combine - Rockhaven. - 1936.
- . 5 Header Barge Stack feeder, - M.J. Simpson. - nd.
- . 6 Stack feeder and sweep. - 1938.
- . 7 Hay stacker - Scott Experimental Station. - 1938. – 2 photographs.
- . 8 Home made header barge - C.A. Lawcett and Sons - consort. – nd.
- . 9 Power Sweep Rake. - 1943.
- . 10 New Way Harvester. - 1935. - 2 photographs.
- . 11 One way and binder hitched in combination. - 1935.
- . 12 Binder with buncher attachment. - 1931.
- . 13 New Way Low Mounted Buck. - nd.
- . 14 Unidentified header barges. - nd. - 9 photographs.
- . 15 Stacks from Tractor Header Barge - Kindersley. - 1936.
- . 16 Kindersley. - 1937. - 2 photographs.
- . 17 Unidentified barge stack sweep. - 1937.

Box 3

10. Hay and light crop handling machines. - nd, 1929-1955. - 2 folders.

- . 1 Two horse hay sweep. - 1935, nd. - 3 photographs.
Used in Saskatchewan from the 1920s to the 1950s.
- . 2 Threshing stacks with combine - Rockhaven. - 1935. - 3 photographs.
- . 3 Threshing barge stacks - Kindersley. - 1935. - 3 photographs.
Brought to thresher by sweep.
- . 4 Poverty box. - 1931. - 3 photographs.
- . 5 Binder with header conveyor attachment. - 1935. - 2 photographs.
Used to cut short crops.

- . 6 A light tractor sweep. - 1935.
- . 7 Binders used as swathers. - 1938. - 6 photographs.
- . 8 Unidentified sweeps. - nd. - 2 photographs.
- . 9 Tractor header barge - Delisle or Conquest. - 1937. - 3 photographs.
Ray Frey with a McMillan dump bottom barge.
- . 10 Header and automatic stacker. - nd.
- . 11 Dump barge and power take off driver header - Gliden. - 1936. - 3 photographs.
- . 12 A.J. Anderson - Girvin. - nd. - 4 photographs.
- . 13 Dump floor Barge built upon a combine frame. - nd.
- . 14 Dump floor barge with caster mounting. - nd.
- . 15 W. Reid Hoosier. - nd.
- . 16 Geo Brown - [Treelon]. - nd.
- . 17 Jamieson Sweep and Stacker. - nd
- . 18 Barge stacks. - nd, 1929. - 5 photographs.
- . 19 Booster buck. - nd.
- . 20 Unidentified threshing. nd. - 2 photographs.
- . 21 Farmer Jones's Rocker bottom stacker. - 1940.
- . 22 Caterpillar diesel tractors pull binders. - nd.
Photo by Caterpillar.
- . 23 Barge sweep and IHC Farmall tractor. - Experimental Station,
Lethbridge. - 1943. - 12 photographs.
Another small barge stack sweep or hay sweep with winch
lift mounted of the front of a IHC Farmall tractor. Two
photos have a blade on the front.
- . 24 Cable winch to lift barge stock. - nd. - 5 photographs.
Old car rear axle assembly and differential rigged to use as a cable
winch. Attached to an Allis Chalmers Tractor.
- . 25 Barge stack sweep built on a Ford Ferguson 8N tractor. - 1940. - 3
photographs.
- . 26 Home-made barge stack sweep - Wm. Simpson of Sedgewick. - 1939.
- 5 photographs.
- . 27 Barge stack sweep mounted on McCormick-Deering tractor. - 1939. -
2 photographs.
With home-made differential winch.
- . 28 Jayhawk hay stacker on a Massey Harris 101 tractor. - nd.
- . 29 Stook sweep built on back of 2 tone truck. - 1938.
- . 30 Stook sweep on a John Deere DE tractor. - 1938-1944.
- . 31 Stook sweep on an Oliver 70 tractor. - 1938-1944.
- . 32 Power hay rake and power hay baler - Forget. - nd.

- . 33 Mechanical power controls - Lethbridge Experimental station. - 1941.
- 2 photographs.
Developed prior to hydraulic lifts.
- . 34 Mechanical lift power hay rake - G.H. Nordell, Foam Lake. - nd. - 7
photographs.
- . 35 Raking Russian Thistles - Pultz Bros., 10 mi NW of Saskatoon. - 1938.
3 photographs.
- . 36 Horse draw IHC (McCormick) reapers. - nd. - 4 photographs.
- . 37 Innis self (straw) baler. - 1930. - 2 photographs.
- . 38 Combine pickups. - 1951. - 7 photomechanical prints.
Examples of various types of combine pickups. Companies
identified are Massey Harris, McCormick-Deering, John Deere,
Minneapolis and Cockshutt.
- . 39 Case tractor and hay pickup. - 1955.

11. H.A. Lewis farm - Gray, Sask. - nd, 1925-1948.

- . 1 Acme sheaf loader. - 1925. - 3 photographs.
- . 2 Farm buildings. - 1942-1948. - 10 photographs.
- . 3 Allis Chalmers - model e. - 1928. - 2 photographs.
- . 4 Massey Harris Pacemaker tractor on John Deere 16 foot swather.
1942 - 2 photographs.
- . 5 Testing under the direction of the Agricultural Engineering
Department. - 1948.
- . 6 Massey Harris 25 tractor. - 1938.
With home made cab fashioned from an old Federal Truck cab.
- . 7 Cockshutt combine. - 1942. - 4 photographs.
- . 8 Cockshutt SP112 self propelled combine. - 1939-1945. - 6 photos.
- . 9 John Deere Disc Tiller. - 1940. - 1 photograph; 1 negative.
- . 10 Evaluation crops. - 1943. - 4 photographs.
- . 11 John Deere swather and combine. - 1928. - 3 photographs.
Early drum type pickups were not as efficient as the dropper or
roddle types.
- . 12 A home made hitch to pull 30 foot harrow. - 1932.
- . 13 Power take off auger truck unloader. - nd. - 6 photographs.
1948 Dodge one tonne truck unloads grain. Auger runs off the
Truck engine at slow idle speed. Home-made. Also includes data
sheet.
- . 14 Hand operated dump winch on a 1 ½ ton 1940 truck. - nd.
- . 15 Combine surge tank. - 1928.
Holds about 250 bushels.

- . 16 1940 Chev 2 ton with hand crank hoist. - nd. - 5 photographs.
Designed by Lewis. Forerunner of the hydraulic hoists introduced in the 1950s.
- . 17 2 types of 20 ft swathers. - 1940.
- . 18 Hitch arm extension on the Cockshutt on way. - 1938.
- . 19 John Deere one way. - 1938. - 2 photographs.
Five disc plow in clay soil.
- . 20 Massey Harris tractor pulls a John Deere Power take Off swather on rubber wheels. - 1942.
- . 21 Grain auger. - 1936.
1st spiral auger. Build by The Tractor Bone Yard - Regina. No transportation wheels.
- . 22 Gear type pump. - 1948.
Pumping water at dugout to irrigate garden and potato patch.

12. Farm structures. - 1921-1955.

- . 1 House constructed of ramed earth bricks. - 1937. - 2 photographs.
- . 2 Modern farm house - Gray. - 1949.
- . 3 Log house - sheep herders wagon - near Maple Creek. - 1936.
- . 4 Farm root cellar. - 1924.
- . 5 Wind mill - Ricelou. - 1947.
- . 6 Wood silo. - 1925.
- . 7 Temporary grain bins. - nd, 1952. - 3 photographs.
- . 8 Barn full of wheat. - 1952. - 3 photographs.
Over 23,000 bushels - braced on the outside to resist the pressure.
- . 9 Granary - Murphy Bros. Milestone. - 1948.
Built from salvaged from old portable granaries.
- . 10 Temporary of grain storage. - 1948-1955. - 7 photographs.
Used during good crops years 1948-1955.
- . 11 Hoop and vertical stave silos. - 1928.
- . 12 Berube farmstead. - 1928.
"Good equipment and mixed farming foundation of Berube's success" - Pierre Berube - Beaumont, Alberta.
- . 13 Ditter farmstead - Clavet. - 1930.
"S. Ditter wins with mixed farming".
- . 14 Wilson Bros. farmstead. - 1930.
"A monument to the success of power farming".
- . 15 A mud hut. - 1921.
Plastered and whitewashed to make a very comfortable rural

- home.
- . 16 Farm house. - 1949.
Orval Lewis' house on farm at Esttin shortly after completion.
 - . 17 A Texas style gate. - 1938. - 3 photographs.
Used in ranching areas.
13. Garden tractors. - 1942, 1948.
- . 1 Home made garden tractor - W. Thompson Pense. - 1942.
 - . 2 Hal and Ron Lewis planting potatoes - T. Eaton maker. - 1948.
14. Crops. - nd, 1941-1952.
- . 1 Good swathing - Regina. - 1952.
 - . 2 Windrow carried by stubble. - nd. 3 photographs.
 - . 3 On ground from snow. - nd.
 - . 4 Duckfoot cultivation vs one way disc. - nd. - 2 photographs.
Regina experimental station.
 - . 5 Sunflower crop south of Moose Jaw. - 1941.
 - . 6 Cadillac crested wheat grass. - nd
 - . 7 One way disc seeding. - nd.
 - . 8 Furrow seeding. - nd. - 2 photographs.
Crop that had been sown with a Kirchner Seeder plow.
15. Dynamometer. - nd., 1925.
- . 1 University of Wisconsin. - nd.
 - . 2. Gibb brothers - Regina. - 1925. - 2 photographs.
The Gibb brothers of Lumsden were Saskatchewan champion team in horse pulling. They were never beaten in Canada. Photo by Capital Studios of Regina.
16. Tractor drawn swathers. - 1925-1942.
- . 1 McCormick Deering swather and tractor. - 1925-1930. - 12 photographs.
All photographs are dated. Farms identified are Smeltzer of Bremmmer, Alberta, Nelson of Saskatoon, Wilsons Bros. of Harris, Piper of Claver and Sparrow Ranch in Alberta.
 - . 2 Case L tractor and case swather. - 1932. - 3 photographs.
Photo by Case.
 - . 3 Holt caterpillar and swather. - 1929.
Swathing in haled crop.
 - .4 Massey-Harris 12 foot tractor drawn header. - 1931. - 2 photographs.

- Artist rendering of header with rear delivery. Used in Saskatchewan from 1931 to 1937.
- . 5 Holt Windrow Headers - Alberta. - 1928.
Three units laying down for the pick-up attachment to feed into combine at a later date when dry. Caterpillar 30 pulling outfit on the right.
 - . 6 Double swathing. - 1942. - 2 photographs.
Holt and Massey Harris swathers. Lewis of Gray and Clarke of Estlin.
 - . 7 I.H.C. centre delivery swather. - 1928.
Introduced as a new method of harvesting.
 - . 8 Unidentified swather - E. Nelson of Saskatoon. - 1928.
 - . 9 Holt overshot swather. - 1928. - 2 photographs.
“Drying the grain and weed by windrowing”.
17. Tractors and combines. - nd, 1927-1943.
- . 1 McCormick Deering tractor and combine. - 1928-1943. – 37 photographs. - 2 envelopes.
All photographs are dated. Farms identified are E. Nelson of Saskatoon, Sherry of Druid, F. Nickol of Harris, Wilson Brothers of Harris, J.A. Baker of Cayley, Alberta, Hugo Kutz of Elrose, Hodges of Richlea, Sithmann of Hughton, Dittmer of Clavet, Olser of Sutherland and Hess of Hughton.
 - . 2 Holt tractor and combine. - 1928.
Prentiss Farm, Grand Prairie, Alberta (Peace River District).
 - . 3 Caterpillar tractor and Holt combine. - 1928. - 3 photographs.
Pat Burns ranch in Alberta.
 - . 4 Caterpillar tractor and Holt combine. - 1927-1928. - 6 photographs.
Photos by Caterpillar. The Holt Model 36 with the short feeding table was the first really successful combine to be used to pick up a swath from a Holt swather. Introduced into the Regina area in the fall of 1927.
 - . 5 Case tractor and combine. - 1930. - 11 photographs.
Photos by Case. Near Swift Current.
 - . 6 Caterpillar diesel tractor and combine. - 1933.
Photo by Caterpillar.
 - . 7 Minneapolis combine and McCormick Deering - Bryce near Riverhurst. - 1927. - 2 photographs.
Cost without including depreciation on machines was \$1.06 per acre.

- . 8 Holt combines operating in Saskatchewan. - 1927-1928. – 6 photographs.
- . 9 McCormick Deering tractor and combine James Sharpe - Kelfield. – 1928. - 2 photographs.
Arrow points to Sam. Titled “6508 Combine In Saskatchewan”.
- . 10 Massey Harris 9B Combine and Wallis tractor. - 1929.
- . 11 McCormick Deering tractor and Case model P combine. - 1929. - 2 photographs.
Tom Pope of Madison.
- . 12 Holt Hillside Combine. - 1929.
- . 13 Massey Harris tractor pulling unidentified combine. - nd.
- . 14 One man operated combine outfit - Tom Wozney, Gray. - nd.
Built and operated by Mr. Wozney on 1/4 section farm.
- . 15 Caterpillar tractor and Holt combine. - 1928.
Photo by Caterpillar. A Belsker, Alberta farmer combines the crop From the previous fall. “Grain combined in the Spring of 28”.
- . 16 Caterpillar tractor and Holt combine. - 1937.
Photo by Caterpillar. Diesel RD4 pulling a model 36 20 foot cut combine.
- . 17 Case tractor and combine. - nd.
LA tractor and pick up combine in a light crop.
- . 18 Caterpillar tractor and Holt combine. - 1932. - 2 photographs.
Two combines behind two tractors. Russel and Wallace Clarke Estlin, on the Regina Plains.
- . 19 McCormick Deering and Massey Harris Combine. - 1929.
“Combing in Saskatchewan”. Photo by Steele.

18. Self-propelled combines. - nd, 1929-1952.

- . 1 Case combine near Swift Current. - 1929-1930. - 6 photographs.
Photos by Case.
- . 2 Harvesting sunflowers in December near Moose Jaw. - 1941, 1946. - 5 photographs.
Massey Harris. Hand-made reel bats and cutter bar modification on a power take off combine.
- . 3 Massey Harris SP #21 - Saskatoon. - 1942-1946. - 12 photographs.
- . 4 Massey Harris SP #20 - Saskatoon. - 1937-1939. - 4 photographs.
Used the engine and transmission of the MH 25 tractor. 16' cut it was a forerunner of the SP 21.
- . 5 Cochshutt SP137. - 1952.
Photo by Cochshutt.

- . 6 Waterloo Sunshine combine - J.W. Young farm at Madison. - 1938. - 11 photographs.
First self-propelled combine.
- . 7 Minneapolis Molin combine. - nd. - 2 photographs.
Not many sold in Saskatchewan.
- . 8 Dolly wheels on belt pickup - Russel Clarke at Esltin. - 1945-1948. - 2 photographs.
Home-made caster wheels to replace shoes on a John Deere belt pick-up.
- . 9 Unidentified Massey Harris combine. - nd.
- . 10 Cochshutt SP132. - 1952.
Photo by Cochshutt.

19. Threshing machines. - nd, 1906-1941.

- . 1 Stanley Jones separator. - 1924. - 3 photographs.
A small individual farm threshing outfit made up of a Stanley Jones separator and a Ford Model T engine.
- . 2 McCormick Deering. - 1926-1930. - 8 photographs.
All photographs are dated. Farms identified are W.W. McLeod of Athabasca, Alberta, G.W. Boses of Saskatoon and Thorssen Bros. of Calgary.
- . 3 P.T.O. from tractor to Grain separator. - 1926. - 4 photographs.
Series of photographs detailing the stages in harvesting process.
- . 4 Transitt Thrasher Co. - 1906.
P.T.O. early. 4 cylinder. Forerunner of Big 4.
- . 5 Unidentified threshing outfit. - 1926.
Elevated shot of threshing in progress. Farm buildings in background.
- . 6 Unidentified threshing outfit. - ca. 1938.
- . 7 Caterpillar diesel tractor and thresher - Resource. - 1941.
Photo by Caterpillar.
- . 8 Threshing in Saskatchewan and Egypt. - 1921.
Photo has two images comparing long age in Egypt and in Saskatchewan using an Avery Yellow Fellow separator.
- . 9 Case tractor powers a case 32 X 54 separator. - 1915.
- . 10 1893 Gaar-Scott and Co. - Richmond, Ind. - nd.
Self-feeder. Artist drawing.
- . 11 George White. - nd.

20. Twine. - 1927.

.1 International Harvester binder twin mill. - 1927. - 4 photographs.
Views of the factory in Hamilton, Ontario.

21. Horse drawn combines. - 1925-1927. - 5 photographs.

22. Self-propelled swathers. - 1948-1951.

. 1 Massey Harris - Agar farm at Floral. - 1948. - 2 photographs.

. 2 Pioneer experimental model. - 1950-1951. - 8 photographs.

Jack McFaul farm at Zealandia. J.Y.M. McFaul and Vic Boulivue operators.

23. Horse drawn binders. - nd, 1927-1938.

. 1 Massey Harris - four house. - 1927, 1938. - 2 photographs.

In one of the photos Prof. Frey of the U of S tests the draught of the binder using a university made dynamometer designed by Evan Hardy.

. 2 McCormick wire type binder. - nd.

24. Stooker. - 1926.

. 1 IHC Stooker. - 1926. - 5 photographs.

Worked fairly well on level ground but was not successful on hilly land. Combines in 1928 placed it as obsolete.

25. Motor trucks/automobiles. - nd, 1915-1948.

. 1 International 1 1/4 ton Speed Truck - W.L. Walker of Strathcona, Alberta. - 1929.

. 2 International 4 cylinder with hoist box. - 1924-1929. - 4 photographs.

Truck hauled 70 bushels of wheat. One photo is taken by the Government Elevator on 11th Street in Saskatoon; Quaker Oats in Saskatoon; two are at an unidentified wooden elevator.

. 3 Six Speed Special International Motor Truck. - 1928-1929. - 4 photographs.

. 4 Unidentified International trucks. - 1928-1930. - 9 photographs.

Three of the trucks were used for commercial use with the firms' name printed on the side: Empire Meat Co. Ltd, Saskatoon; John Duff and Sons Pork Packers, Hamilton; Western Livestock Limited, Saskatoon.

. 5 1907 IHC Auto Wagon. - nd.

Prof Evan Hardy driving a vintage auto.

- . 6 Three automobiles on riverbank. - 1948.
1905 Cadillac, 1907 Maxwell and a 1948 Pontiac. Photo by Western Producer.
- . 7 Ford touring Car. - 1915. - 1 photomechanical print.
Advertisement in 1915 issue of the Farmers Advocate.

26. Tractor drawn seed drills. - nd, 1926-1938.

- . 1 Caterpillar diesel tractor pulling 54 foot grain drill. - 1933.
- . 2 Seeding and packing on the big Wilson Farm at Harris. - 1929, 1937. - 4 photographs.
McCormick Deering tractor and packer.
- . 3 Minneapolis tractor (17-30B) and Kirchner seeder plow. - nd.
- . 4 Caterpillar tractor and IHC seed drill - Regina. - 1938.
- . 5 Filyk Bros. - 1927. - 5 photographs.
A well built attachment to seed grain on a 21 ft disc harrow. It worked well mechanically but suffered many problems in operation as a seeding machine and was eventually discarded as impractical. Tested by R.P. Frey of the U of S.
- . 6 McCormick Deering tractor and mouldboard plow with Van Brunt 7 run plow press drill. - 2 photographs. - 1927.
- . 7 McCormick Deering tractor with Massey Harris duplex hitch for two drills. - 1929. - 2 photographs.
Used a small 7 run drill on the hitch with two standard 20, 24 or 28 run drills pulled behind. A popular large unit.
- . 8 Cockshutt Tiller with packer behind tractor. - 1929. - 2 photographs.
Heavy surface packer for one-way discing. George Rourlege of Delisle.
- . 9 Home-made press drill - J.A. Hager, Chamberlain. - 1930.
- . 10 Tractor pulling unidentified Plow and Pony Press drill. - 1938.
This combination was a popular seeding method in light soil areas from 1925 to 1955.
- . 11 Drifting soil. - nd.
- . 12. John Deere model D tractor and J.D. Van Brunt duplex seed drill. - 1928.
- . 13 McCormick Deering tractor and 41 marker duplex drill. - 1929.

- . 14 McCormick Deering tractor with drill and packer. - 1930. - 2 photographs.

Harold McLaughlin and J. McGregor Smith stand in a field at Spruce Grove, Alberta.

- . 15 Van Brunt (John Deere) pony press drill. - 1926.
- . 16 Massey Harris Wide Level. - 1948. - 3 photographs.
First production model.

Box 4

- 27. Tractor drawn ploughs and harrows. - nd, 1927-1955.
 - . 1 Case tractor and plough. - 1955 - 3 photographs.
Photos by Case.
 - . 2 Caterpillar diesel tractor pulling 3 ploughs. - 1934.
Photos by Caterpillar.
 - . 3 McCormick Deering tractor and plough. - 1937.
Swift Current Dominion Experimental Farm.
 - . 4 Co-op oscillating harrow. - 1942-1943. - 2 photographs.
The CCIL Coop Harrow was a self-cleaning harrow designed by a farmer in Alberta. Harrow dump, F.F. Popoff, Blaine Lake.
 - . 5 McCormick Deering WD 9 tractor pulling a Graham Hoeme heavy duty cultivator. - 1945-1948. - 17 photographs.
The first make of heavy tillage cultivator imported into Saskatchewan from the USA. Some photographs are of the fields after work has been complete.
 - . 6 Caterpillar 60 tractor pulling 55 foot of stiff shank cultivators. - 1935. – 2 photographs.
PFRA project south of Swift Current. Attempt to control soil drifting.
 - . 7 Plowing match at Floral. - 1927.
 - . 8 Caterpillar 60 tractor pulling 50 feet of cultivators. - 1930. – 2 photographs.
3.6 miles per hour, Percy Lasbey Farms, Moose Jaw.
 - . 9 Home-made harrow hitch - Hawarden. - 1930. - 2 photographs.
Prof Manley Champlin looking at a heavy home-made harrow hitch.
 - . 10. McCormick Deering WD 9 tractor pulling 50 feet of flexible harrows. - 1948. - 2 photographs.
A.G Lewis testing an Agricultural Engineering designed harrow hitch on the farm of Gordon Brown of Riceston.
 - . 11 Home-made, wheel supported harrow drawbar 48 ft of diamond harrow - Asquith. - 1950.

- . 12 John Deere D tractor and a Superior cultivator. - 1950. – 2 photographs.
- . 13 Home-made harrow hitches. - 1930-1950. - 9 photos.
Variety used in Saskatchewan.
- . 14 V type Blade Noble Rod Weeder cultivator. - 1940-1950. – 15 photographs.
- . 15 Unidentified tractor pulls a McCormick Deering Rod Weeder. - 1930.
- . 16 McCormick Deering tractor and harrow. - 1926.
- . 17 Rotary hoes. - 1951. - 4 photographs.
Found to be not suitable.
- . 18 Tandem hitches for one-way disc. - nd. - 4 photographs.
Caterpillar tractor pulls two one-way discs in the Rosetown area.
- . 19 Tandem hitches for one-way disc. - 1938.
George Ritledge of Delisle operates a Reeves Steamer pulling three one-way discs.
- . 20 Hitch too high on one-way disc. - nd.
- . 21 Schumann plow without moldboards. - nd.
- . 22 Early type of blade weeder. - 1926.
- . 23 Case tractor pulls harrow dump - F.F. Popoff, Blaine Lake.. - 1938.

28. Horse drawn seed drills and ploughs. - nd, 1924-1940.

- . 1 Massey Harris Drill and Mitchell sub-seeder attachment. - nd.
- . 2 McCormick Drill and Mitchell sub-seeder attachment. - 1926. – 3 photographs.
- . 3 Unidentified seed drill. - nd. -2 photographs.
- . 4 8 horse tandem pulling a 3 bottom mouldboard plows. - nd.
- . 5 Spring tooth harrows. - nd.
Limited use in Saskatchewan very poor trash clearance. Used mostly in the 1920s made by John Deere Co.
- . 6 Plowing match at Floral. - 1927.
- . 7 Kirchner seeder plow. - 1924-1940. - 6 photographs.
About 100 Kirchner seeder plows were sold and operated in Saskatchewan. They were superceeded by the one way. A Swedish import.
- . 8 Ten horse hitch for eight foot Massey Harris one-way. - nd.

- . 9 Eight horses pulling a three bottom engine gang plow. - 1920s. - 2 photographs.

The hitch was made from front and wheels of a wagon. Near Lockwood.

- . 10 Horse hitch cart for engine gang plow. - 1926. - 2 photographs.
- . 11 Six horses pulling a seed drill. - nd. - 3 photographs.
Two furrow plow and press drill.
- . 12 Seeder plow and packer - five horses. - nd.
R.P. Frey testing.
- . 13 Used in Saskatchewan. - 1916-1925. - 6 photomechanical prints.
Examples.
- . 14 Home made horse drawn rod weeder. - 1926. - 3 photographs.
Developed and built by A. Marty - Blacksmith Gray, Sask.

29. Ox drawn machinery. - nd.

- . 1 John Vallens - Unity . - nd.
John Vallens backsetting after 1st crop on his homestead near Unity. During the late thirties Mr. Vallens was associated as director of PFRA projects in Saskatchewan.

30. Bush cutters. - nd, 1935-1945.

- . 1 Homemade A type push brush cutter. - 1938. - 3 photograph.
Used in northern Saskatchewan.
- . 2 Homemade push bush cutter. - nd. - 2 photographs.
The University of Agricultural Engineering Department of the University of Saskatchewan sent out literally hundreds of these pictures to northern farmers in the 1930s and 1940s.
- . 3 Side cutting bush cutter. - 1930s.
For bush and small trees up to 3 inches in diameter. Attached to the side of a farm tractor.
- . 4 John Charnetski and R. Brown - Prince Albert. - 1939. - 3 photograph.
Land breaking machine (plow).
- . 5 H.C. Yelland - Runciman. - 1939.
"Will operate north of Tisdale in May".
- . 6 Brush rake. - 1939. - 4 photographs.
- . 7 Type of clearing in northern Sask. - 1936-1939. - 20 photographs; 1 photomechanical print.

31. Tractors. - nd, 1899-1940.

- . 1 Caterpillar Diesel 30 tractor pulling an Oliver plow. - 1934.

- Photo by Caterpillar.
- . 2 Caterpillar Diesel 50 tractor pulling grain drills - Montana. - 1933.
Photo by Caterpillar.
 - . 3 Caterpillar 36 tractor pulling McCormick Deering stiff tooth cultivators and seed drills. - 1930. - 3 photographs.
 - . 4 Caterpillar 60 tractor pulling Cockshutt Deering stiff tooth cultivators in transportation position. - 1930.
 - . 5 Caterpillar RD4 tractor on a 21 foot disc - Regina. - 1937.
 - . 6 Base Model L tractor with three plows. - 1929.
Kerosene burning tractor.
 - . 7 Caterpillar Diesel 35 tractor. - 1934. - 2 photographs.
Photo by Caterpillar.
 - . 8 Caterpillar RD4 tractor pulling a one way. - Sedley. - 1937. - 2 photographs.
Photo by Caterpillar.
 - . 9 Caterpillar RD6 tractor pulling John Deere disk tillers. - Regina. - 1936.
Photo by Caterpillar.
 - . 10 Caterpillar Diesel 40 tractor pulling a John Deere plow. - 1935.
Photo by Caterpillar.
 - . 11 McCormick Deering TD 35 Diesel Trac Tractor - Elrose. - 1940. - 3 photographs.
 - . 12 A 1926 Minneapolis cross mounted motor tractor. - 1930.
Unit to produce gas from coal and burn the gas in a low combustion tractor.
 - . 13 Fordson tractor - British. - nd.
 - . 14 A 1917 Moline Universal tractor. - nd.
A two cylinder opposed horizontal engine.
 - . 15 IHC TracTracTractor TD 40. - 1935. - 2 photographs.
One of the first diesel engines built by IHC.
 - . 16 Case model C. - 1930. - 2 photographs.
Artist drawing. A smaller brother of the 1929 Model L
 - . 17 McCormick Deering Farmall tractor. - 1929. - 5 photographs.
Various locations of the tractor pulling plows. Farms identified are: GS McFarlane of Branford, Ontario; LP Kirkland of Ladner, BC; John Bell of Hodgeville; and W.E. Lee of Clandeboye, Ont.
 - . 18 McCormick Deering - Frank Cox Athabasca district of Alberta. - 1929.
Tractor is pulling a train of sleds loaded with ties on the frozen Athabasca River.
 - . 19 McCormick Deering 10-20 tractor. - 1930.
Alex Davie of the delta region of the Fraser River.

- . 20 IHC 40 HP tractor with 3 cylinders. - 1908.
Pulling a cockshutt plow with The Canadian Malting Co. Elevator in the background.
- . 21 IHC 25 HP tractor. - 1909.
Pulling a cockshutt plow.
- . 22 IHC 15 HP tractor with single cylinder. - 1909.
Pulling a cockshutt plow.
- . 23 John Deere 820 - 2 cylinder diesel tractor and heavy duty cultivator. – 1958.
- . 24 John Deere 830 tractor and heavy duty cultivator. - nd.
- . 25 1911 IHC Titan 30-60 twin cylinder horizontal. - nd. - 1 photograph; 1 negative (nitrate).
Before restoration.
- . 26 A 1920 30-60 Aultman Taylor - 4 cylinder horizontal tractor. - nd. - 1 negative (nitrate).
At Elbow.
- . 27 Avery Model C. - 1920.
Pumping water.
- . 28 The first Case gas tractor. - nd.
"Tractor built in 1892". Never in production because of poor combustion.
- . 29 Avery tractor at factory. - 1917. - 2 photographs.
On a traction break test.
- . 30 Hollis. - 1916-1918.
Artist drawing.
- . 31 First IHC Diesel motor. - 1935.
Used in the WD 40 and TD 40 tractors. Photograph by IHC.
- . 32 Waterloo. - 1899.
- . 33 Hornsby 1340. - 1903.
Hornsby's 1,000 pound prize military tractor.
- . 34 Avery 45-85. - 1921.
Turtle Lake, North Dakota.
- . 35 Gaar-Scott 40-120 H.P. - 1910.
Double cylinder compound engine. Pulling seed drill and plow at Gjertson farm at Grosse Isle, Manitoba. Gaar-Scott was bought by Rumely Co in 1911.
- . 36 Case model L. - 1929. - 5 photographs.
Plowing and breaking grass land.
- . 37 Case 110 Steam. - 1913.
Steam shearing gear.

- . 38 Hornsby semi diesel. - 1904.
Hot bulb ignition.
- . 39 40-80 Hart Parr Gas tractor. - 1909.
4 cylinder opposing piston, oil cooled. Artist drawing.
- . 40 25-45 Rumley Oilpull. - 1910.
Artist drawing.
- . 41 Hart Parr single cylinder vertical tractor engine. - 1912.
Artist drawing.

32. Steel wheels and rubber tires. - nd, 1925-1941.

- . 1 Solid rubber tires - Saskatoon . - 1939-1941. - 8 photographs.
Not popular. In the early 1940s many farmers removed the steel lugs and bolted old rubber tires to the face of the tractor rear wheels in an attempt to reduce the rolling resistance and improve the economy of operation. It was only moderately successful.
- . 2 Wagons and trailers. - nd. - 5 photographs; 6 photomechanical prints.
- . 3 Steel wheels vs rubber tires. - 1938. - 3 photographs on board.
- . 4 Early Goodyear Diamond tread. - 1937.
Low pressure tires on an Oliver 70 tractor.
- . 5 Testing performance of rubber tires. - 1936. - 6 photographs.
Shortly after rubber tires were introduced to tractors in Saskatchewan. Three of the photos are a tractor pull the U of S dynamometer.
- . 6 Case tractor with rubber tires. - nd.
- . 7 Steel lug wheels. - 1925-1937. - 16 photographs; 1 photomechanical print.
Rubber tires were introduced to tractors in 1937.

33. Grain handling. - nd, 1926-1946.

- . 1 Hydraulic piston hoist on 1938 Ford Truck. - 1948 5 photographs.
Homemade steel box and hydraulic hoist on a Ford 1 ton truck, B.N. Burwell - Gray.
- . 2 Home-made grain elevator. - nd.
24' long from P. Kool's farm at Barons.
- . 3 Unidentified elevators and augers. - nd. - 4 photographs; 1 clipping.
- . 4 Home-made grain elevator - F.W. Ferguson, Sedley. - nd. - 2 photographs.
- . 5 Gravity weed seed screen. - nd. - 2 photographs.
In the 1940s there was a market of weed seeds \$.01/lb. Used by

Kjalander Bros at Wilcox.

- . 6 McCormick Deering 15-30 tractor pulling two 125 bushel grain tank wagons. - 1929.
- . 7 Grain tank for use behind separator. - 1926.
- . 8 Shelf bottom portable grain bins. - 1928. - 6 photographs.
Used between 1918-1930 to collect grain from thresher and unload quick into wagons for hauling to elevator or farm yard storage.
- . 9 Panogem seed clearer. - 1946. - 3 photographs.
A mercuric liquid treatment for smut control in seed grain.
- . 10 Tractor drawn trailers. - 1937-1945. - 4 photographs.

34. Combine straw bunchers. - nd, 1946-1948.

- . 1 Straw bunching - Asquith. - nd. - 22 photographs.
Combine straw saving devices used in Saskatchewan from 1940-1950.
- . 2 Homemade straw saving elevator on combine. - 1946. - 4 photographs.
Made by C. Taywell of Adanac. On a Massey Harris combine.
- . 3 Roll over type. - 1948. - 3 photographs.
Too expensive to building for the type of work.
- . 4 Cascade Bros. - Brandon, Man. - 1947. - 3 photographs.

35. Spreaders. - nd, 1929.

- . 1 Home-made spreader - Brooks, Alberta. - nd. - 2 photographs.
- . 2 John Deere Model H. - nd. - 2 photomechanical prints.
- . 3 Two horses pull a McCormick Deering spreader. - 1929. - 2 photographs.

36. Snow vehicles. - 1948-1960.

- . 1 Bombardier promotional photos. - 1960. - 3 photographs.
Vehicles for bush work. Photos by Bombardier Snowmobile Limited.
- . 2 Bombardier double track vehicle. - 1960.
Department of Highways vehicle based in La Ronge.
- . 3 Huskymobile - Saskatoon. - 1953. - 5 photographs.
Parked at Hamilton Service Station in Saskatoon. A single Bombardier type track spring mounted between two side rails of channel iron. Powered by a 25 HP air cooled engine.

- . 4 Home-made snowmobile - Art Docking, Weyburn. - 1948-1949. - 5 photographs.
Three passenger, 6 HP powered aircooled engine.
- 37. Wartime Traction Jeep. - 1946. - 12 photos.
Testing for use as a farm tractor . Tests conducted for ULA in 1946 under the direction of CJ Simpson, MSA. Results no as encouraging as the group had hoped, "limited practicality".
- 38. Snow ridges in files. - 1943. - 6 photographs.
A caterpillar tractor with a blade attachment ridges snow at the Scott experimental farm.
- 39. Radio controlled tractor ploughing. - 1932. - 3 photographs.
Built by J.J. Lynch of Miles City, Montana. An International truck broadcast to a McCormick Deering Farmall tractor.
- 40. Horse drawn carriages and wagons. - nd.
. 1 Landough carriage of about 1910. - nd.
- 41. Community Bee. - 1943. - 3 photographs; 1 negatives (nitrate).
Seeding the crop for a neighbour who was sick and unable to get his own work done.
- 42. Tractor cabs.- nd, 1939-1958.
 - . 1 Home-made, K.W. Jackson - Glidden. - 1945.
 - . 2 Home-made, W. Heise - Kindersley. - 1939. - 3 photographs.
 - . 3 Home-made, Russel Fyke - Scepter. - 1948.
 - . 4 Aircraft cab near Gilidden. - nd
 - . 5 MacDonald cab. - 1945-1958. - 4 photographs; 3 photomechanical prints. MacDonald Bros. Aircraft Ltd. of Winnipeg. Cost \$195.00.
 - . 6 Home-made, O.H. Haroldson and Sons - Hanley. - 1948. - 3 photographs.
- 43. Western Development Museum. - nd, 1949-1952.
These images of artifacts that were gather of the museum in the early 1950s. The location is museum was on 11st St. W. in Saskatoon.
 - . 1 Semi tailor truck hauling machinery. - 1949. - 5 photographs.
 - . 2 1911 6-16 Saunderson and Gifkin. - nd.

- Made in Bedford, England used in the Biggar district until 1947.
- . 3 25-50 Sawyer-Massey - Central Butte. - nd.
 - . 4 Line-up of gas tractors. - nd. - 4 photographs.
 - . 5 Avery 18-36 - Strassbourg. - nd.
 - . 6 Linn half-trac tractor-truck. - nd.
From LePas Lumber Co.
 - . 7 Massey-Harris 4 wheel drive 1930. - nd. - 2 photographs.
From Swift Current Experimental Farm.
 - . 8 25-45 Rumley Oil pull - J.L. Philps Wilkie. - nd. - 2 photographs.
 - . 9 20 HP Mogul - Brada. - nd.
 - . 10 10-20 Titan - North Battleford. - nd.
 - . 11 Avery tractor-truck - Bulyea-Strassbourg. - nd.
To plow - to thresh - to haul.
 - . 12 5-10 Moline - Taber, Alberta. - nd.
1919 model with 4 cylinder vertical engine. The 1917-1918 models were using a 2 cylinder opposing horizontal engine.
 - . 13 Grain Growers Special 12-24 - Laura. - nd.
Specially built for Canadian trade by Minneapolis Steel now part of Minneapolis-Moline.
 - . 14 Saskatoon's old Waterous steam fire engine. - nd
 - . 15 110 hp Case - Speers. - nd.
Hitched to a 12 bottom Cocksutt gang from Osdge. Geo. Langley engine.
 - . 16 Sawyer-Massey 25-75 hp single cylinder steamer - Wadena. - nd.
 - . 17 IHC 15-30 4 cylinder Titan - Hanley. - nd.
 - . 18 IHC 25 1 cylinder Type D Titan - Biggar. - nd. - 2 photographs.
10 x 15 cylinder; 240 RPM.
 - . 19 Peerless limousine - Calgary. - nd.
Reported to cost \$13,000 new.
 - . 20 1912 IHC Auto-buggy - Edmonton. - nd.
 - . 21 English wagonette - Clair. - nd.
 - . 22 1905 Cadillac and 1907 Maxwell. - nd.
 - . 23 1911 Electric. - nd.
 - . 24 1912 Reeves 32-120 hp. - nd. - 2 photographs.
Special exhibit for moving picture.
 - . 25 Hearse - Allan. - nd.
 - . 26 110 hp Case tractor and 12 bottom Cocksutt plow. - nd.
Plow used between 1910-1920. This one is a 1915 model.
 - . 27 10-20 Case tractor - Balgonie. - nd. - 2 photographs.
 - . 28 1912 IHC motor wagon. - nd.

- First motor wagon was built by IHC in 1907.
- . 29 30-60 Sawyer-Massey. - nd.
- . 30 Line-up of steam tractors. - nd. - 3 photographs.
- . 31 Line-up of automobiles. - nd.
- . 32 Threshing machines awaiting restoration. - nd.
- . 33 Buggies. - nd.

C. Light Agricultural Motor Competition. - 1907-1958.

This was a section of the Winnipeg Industrial Exhibition which began in 1908. "Open to the World" it was also called the Winnipeg motor trails.

1. Photo albums. - 1912.

- . 1 1912 Winnipeg Industrial Motor Contest. - 1912.
24 pages and 48 photographs make up this photo album.
Tractors, plows, judges and general scenes make up the content. Some of the tractors in the photos are identified: Mogul 25; IHC Titan 45; Titan 30; IHC Mogul 45; Canadian Heer; Altman & Taylor; Holt 75; Rumley 15-30 Single cylinder; Sawyer Massey. An image of Prof A.R. Grieg is also included.

2. Photographs. nd, 1908-1911.

- . 1 Flour City tractor. - 1909.
Pulling a cockshutt plow with The Canadian Malting Co. Elevator in the background.
- . 2 Gas Traction. - 1908.
Pulling a cockshutt plow with The Canadian Malting Co. Elevator in the background. In 1910 renamed Big 4.
- . 3 Avery Undermounted. - 1910.
Two steam tractors, 20 and 30 hp.
- . 4 Rumley steam tractor. - nd. - 4 photographs.
One photo has a clear image of a Garr Scott.
- . 5 Avery Utility Tractor. - 1909.
This 12 hp vehicle was also a Truck-Tractor.
- . 6 Gas Traction. - 1909.
Pulling a plow, 30 hp. In 1910 renamed Big 4.
- . 7 IHC Titan 20. - 1909.
- . 8 Gould, Sharpley and Muir. - nd. - 2 photographs.
- . 9 Marshalls Cainsborough England. - nd.
- . 10 Flour City tractor 40 hp. - 1908. - 3 photographs.
Kinnard-Harris Minneapolis, Minn.

- . 11 Gas Traction. - nd.
1910 renamed Big 4.
- . 12 Garr Scott pulling 24 disc plow cutting 18 ft. - 1908.
- . 13 IHC 20. - nd.
- . 14 IHC Titan 45. - 1911.
10 - 14" bottoms in prairie soil.
- . 15 Case 110 hp steam tractor. - 1909. - 3 photographs.
- . 16 Marshall 12 hp. - 1908.
- . 17 Hart Parr Gas tractor. - nd.
Pulling a cockshutt plow.
- . 18 Tractors in field at rest. - 1909. - 2 photographs; 1 negative.
Tractors identified are: Marshal 12 hp; IHC 15 hp; Kinnard-Harris
Flour City 40 hp; IHC 20 hp; Gas Traction 35 hp; IHC 40 hp.
- . 19 Unidentified tractors. - nd. - 2 photographs.
- . 20 Pony brake in operation. - 1911. - 2 photographs.
- . 21 Buffalo Pitts - 3 cylinder. - 1911. - 2 photographs.
- . 22 Flour City. - 1911.
- . 23 Rumley 15-30 Oilpull. - 1911. - 3 photographs.
Two of the Rumley Bros. are picture in one of the photos.
- . 24 Sawyer Massey 3381. - 1911.
- . 25 IHC Titan 25. - 1911.
- . 26 IHC Mogul 25 - single cylinder. - 1909.
- . 27 IHC Mogul 20. - 1911.
- . 28 American Abell - Cock of the North. - nd. - 3 photographs.
135 hp steamer. They also had a 54" cylinder thresher.
- . 29 Gaar Scott Gas. - nd.
- . 30 Avery undermounted steamer 30-90. - 1911. - 4 photographs.
In two of the photographs you can also see a Flour City 40-60 Gas.
- . 31 Big 4. - nd.
- . 32 Case Steamer. - nd. - 2 photographs.
Pulling a plow.
- . 33 Gould Sharpley Muir Ideal 12-24. - 1911. - 2 photographs.
2 cylinder opposed 7.5 x 10 - 380 rpm. Made in Bradford, Ontario.
- . 34 American Abell Universal Farm Motor. - nd.
Also sold as Rumley Gas Pull Minneapolis Universal. Made by the
Universal Tractor Co. Stillwater, Minn.

Box 5

3. Motor Contest text files. - 1907-1958.

Programs, pamphlets, contestant application and competition results. Note that some oversized materials have been removed to **Oversize Box 1**

. 1 1907.

. 2 1908.

Includes a negative of International 40 hp Tractor.

. 3 1909.

. 4 1910.

. 5 1911.

. 6 1912.

. 7 1913. - 2 folders.

. 8 1914.

. 9 Miscellaneous. - 1909-1958.

D. Nebraska Tractor Tests. - 1920-1957.

The Nebraska Tractor Tests is a rest and report by the Agricultural Engineering Department of the University of Nebraska on the performance of a tractor. The U of S prepared bulletins from select information on tractors offered for sale in Canada.

1. University of Saskatchewan. 1938-1959- 2 folders.

Test results, data and bulletins.

Box 6

2. Miscellaneous publications. - 1920-1957.

Primarily test results from the University of Nebraska.

E. Western Development Museum. - 1948-1966.

Correspondence and publications.

III. University of Saskatchewan.

1. Straw cover panel. - 1953-1954.

Correspondence, articles and lists for the Farm and Home Week panel discussing the "Handling of Stubble and Straw Cover for Crop and Fallow".

2. Photographs. - nd, 1909-1956. - 2 folders.

. 1 Agricultural Engineering Building - Construction. - 1910, 1925. - 9 photograph; 1 negative (nitrate).

. 2 Tractor Laboratory. - 1919-1941. - 18 photographs. - 3 envelopes.

- Tractors, automobiles and Fokker.
- . 3 Machine shop. - 1920.
2nd floor north wall at the back.
 - . 4 Black smith shop. - 1920.
1st floor west wing. A bearing building lab.
 - . 5 Oil testing laboratory. - 1920.
2nd floor.
 - . 6 Farm machinery laboratory. - 1919-1920. - 2 photographs
3rd floor east wing.
 - . 7 Carpentry shop. - 1920.
3rd floor west wing.
 - . 8 Mr. Tom Anderson - Laboratory instructor. - 1939-1942.
Illustrating a proper vertical line of draft in the hitching of a one-way McCormick Deering 109 tractor and a John Deere one way. Photo take in the tractor lab. Anderson was a demonstrator.
 - . 9 Tinsmithing laboratory. - 1920.
Adjourning the machine shop.
 - . 10 Short course group photos. - 1912-1949. -25 photographs. - 2 envelopes.
Taken inside the engineering building.
 - . 11 The farm water supply - small dugout. - 1921. - 2 photographs.
 - . 12 Pumping liquid from a sewerage. cistern. - nd.
 - . 13 Engineering Building exterior. - 1910-1950. - 10 photographs; 1 negative (nitrate).
On the back of one of the photos is a story of how the books and papers were saved from fire by students.
 - . 14 Stone and boulder blasting. - nd. - 16 photographs.
One of the laboratory class demonstrations conducted each spring by the Agricultural Engineering Department for Agricultural and Engineering students.
 - . 15 Testing Mayfath grain auger. - 1956. - 2 photographs.
 - . 16 A 45 Mogul Tractor pulling 5 IHC double disc harrows. - 1911.
Operated by Tom Porter. See back of photograph for inventory of the U of S farms machinery.
 - . 17 Return soldiers farming course. - 1919. - 2 photographs.
Gordon tractor and 8 foot binder and a Titan 10-20 pulling two Massey Marris #5 binders cutting winter rye.
 - . 18 H.A. Lewis and Prof Hardy addressing Imperial Oil Short course. - 1947. - 2 photographs.
 - . 19 Straw gas experiment. - 1918. - 5 photographs.
Prof A.R. Greig burning straw gas in a 1916 model McLaughlin touring

- car. Experiments conducted in 1918. Quite successful but not practical was less than \$0.25 per gallon. Prof Hardy was also involved.
- . 20 Agricultural Engineering students and staff. - 1940-1950. - 9 photographs; 1 negative (nitrate).
 - . 21 Wind electric studies. - 1939-1948. 8 photographs; 6 negatives (nitrate).
Images of wind generators including three images of those on the roof of the Engineering building. J.R.W. Young in charge.
 - . 22 Diesel short course. - 1941.
Tractor laboratory.
 - . 23 Short course staff. - 1912-1955. - 5 photographs.
 - . 24 Stationary engine laboratory. - 1927. - 2 photographs.
 - . 25 Prof Hardy conducts field day. - 1945. - 4 photographs.
For Case co dealers and personnel study tillage methods, speed of operation and timeliness to improve farm practices.
 - . 26 German Folker biplane. - 1920. - 2 photographs.
Captured German Folker biplane in the north end of the original Engineering Building tractor laboratory. This plane was used by the German air force in the 1st World War. It used a vertical in line air cooled engine. We also had a 7 cylinder rotary Gnome engine built in Germany. It used a stationary crank and cylinders rotated around the crank. It was supposed that the fire started in the area close to the plane even though the engine was not in operation. The 1st Engineering Building burnt in 1925. See also MG 108 II. B. 14. . 2 Tractor Laboratory.
 - . 27 Better farming train. - 1920-1921. - 4 photographs.
 - . 28 Engineering building fire. - 1925. - 14 photographs.
Showing the aftermath of the fire that destroyed much of the building.
 - . 29 University farm tractors. - 1912-1918. - 3 photographs.
30-60 Aultman Taylor, Mogul 45 and Mogul 10-20. Used to break and work down the 800 acre University farm 1912-1915.
 - . 30 University threshing outfit. - 1917-1918. - 6 photographs.
Mogul 45 and Rumble Ideal separator.
 - . 31 Sheep barn and poultry plant. - nd.
 - . 32 Farm machinery repair lot. - 1919.
Behind the Engineering Building.
 - . 33 Cutting grain on University Farm. - 1913.
Mogul 45 pulling two Massey Harris #4 binders and one Deering binder. Operated by Tom Porter.
 - . 34 Rubber tire equipped tractor. - 1938.
 - . 35 Spark plug display. - 1919.
 - . 36 Rammed earth building research. - 1936. - 2 negatives (nitrate).

- . 37 Saskatoon. - 1909.
Postcard of downtown Saskatoon, the same year the first university classes started in the city's Drinkle Building.
- . 38 Prof Evan Hardy in the field. - 1925-1929. - 2 photographs.
Dr. Hardy talks to farmers as they work.
- . 39 Allis-Chalmers united tractor pulling a 4 bottom mouldboard plow. - 1944.
It has the Agricultural Engineering Department's dynamometer registering the drawboard load at the University Farm.
- . 40 McCormick Deering W30 tractor pulling a 4 bottom mouldboard plow. - nd.
It has the Agricultural Engineering Department's dynamometer registering the drawboard load at the University Farm.
- . 41 Home-made Tractor cab. - 1948-1949. - 6 photographs.
Built by Don L. Trapp (cap) in the tractor lab. Henry Spencer, son of Dean Spencer in the sweater. For a McCormick Deering W6 and WD6.
- . 42 Home-made Tractor cab. - 1948. - 7 photographs.
Built by CV Simpson in the tractor lab. Cliff was a lab instructor. For a John Deere tractor.
- . 43 Massey Harris wide level disc. - 1948. - 6 photographs.
First model. Photos take in the tractor lab of the U of S.
- . 44 Prof Ray Frey inspecting crops.. - 1943. - 2 photographs.
Measuring an 18 bushel per acre flax crop.
- . 45 Delivery truck. - 1924.
Used on university campus.
- . 46 Massey Harris 4 wheel drive tractor. - 1932. - 3 photographs; 3 negatives.
Tested at the University of Saskatchewan.
- . 47 High tension magnetos. - 1936.
Sitting on laboratory stand used for instructional purposes.
- . 48 Indiana seminar. - nd.
Group photograph with people identification on the back. C.J. Simpson, Eldon Johnston, E.A. Hardy and H.A. Lewis are from Saskatchewan.

3. University history. - 1942-1976.

- . 1 Agricultural Engineering history. - 1942-1960.
Notes and lists pertaining to the Departments academic and extension activities. Includes recollections by Prof Oliver Symes.
- . 2. Department of Geology. - 1959.
- . 3 College of Engineering. - 1976.
- . 4 General. - 1959.
Winter, 1959 of *Saskatchewan History* with articles "The Contest For The University of Saskatchewan" by J.E. Murray and "Early Years In the

College of Agriculture" by L.E. Kirk.

4. Short Course material. - 1945-1961.
5. Articles prepared by Lewis. 1945-1962. - 2 folders.
Includes articles and bulletins by Lewis published by the Department of Agricultural Engineering.
6. Articles by Others. - 1937-1951.
Includes articles, pamphlets and bulletins by members by member of the Department of Agricultural Engineering other than Lewis.

IV. Miscellaneous publications.

Boxes 7-9

1. *Tractor Red Book*. - 1917-1982.
The original, illustrated reference book of tractors, tractor accessories and power farming machinery. Also know as *Cooperative Tractor Catalog* and *Tractor Field Book*. Incomplete run.

Box 10

2. *Farm Engineering - Vol. 1 Farm Mechanics* by Robb and Behrends - 1924.
3. *Agricultural Engineering* by Davidson - 1913.
4. *Farm Gas Engines* by Hirshfeild and Ulbricht - 1913.
5. *The Modern Gas Tractor Its Construction, Operation, Application and Repair* by Page - 1914.
6. *Dyke's Automobile and Gasoline Engine Encyclopaedia* by Dyke - 1941.
7. *Cyclopedia of Automobile Engineering* vol. 1-4 - 1913.
8. *Farm Power* by International Harvester Company of America - 1915.
9. *Transportation Progress* by Pound - 1933.
10. *Changes in the farms of west central and northern Saskatchewan, 1942-43 to 1947* by Andal - 1951.
11. *Equipment on farms in the plains region of Saskatchewan* - 1953.
12. *The Agricultural Machinery Act* - 1958.
13. *An economic analysis of farm power in Alberta and Saskatchewan* - 1935.
14. *Prairie farm rehabilitation* - 1939.