



Smithsonian

National Museum of American History Kenneth E. Behring Center

Guide to the D. Ward King Road Grader Collection

NMAH.AC.1332

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2016

Archives Center, National Museum of American History

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Collection Overview

Repository:	Archives Center, National Museum of American History
Title:	D. Ward King Road Grader Collection
Date:	1902-2005
Identifier:	NMAH.AC.1332
Creator:	King, D. Ward (Creator)
Extent:	0.75 Cubic feet (2 boxes, 1 map-folder)
Language:	English .
Summary:	Photographs, publications and correspondence related to D. Ward King's invention the King Road Drag, or the Split-Oak drag, which improved rural travel in the early 20th century by introducing a simple design and low-effort system for grading poor-quality roads. The King Road Drag was promoted heavily across the United States and Canada via the "Good Roads Campaign" originally sponsored by the railroad companies in the early decades of the twentieth century.
Digital Content:	Image(s): D. Ward King Road Grader Collection

Administrative Information

Acquisition Information

Collection donated by Helene W. King and Amy Burbank King in 2014.

Processing Information

Processed by Sarah Hedlund, intern, 2016.

Preferred Citation

D. Ward King Road Grader Collection, 1903-2000, Archives Center, National Museum of American History.

Restrictions

Collection is open for research.

Conditions Governing Use

Collection items available for reproduction, but the Archives Center makes no guarantees concerning copyright restrictions. Other intellectual property rights may apply. Archives Center cost-recovery and use fees may apply when requesting reproductions.

Accruals

Received .50 of a cubic foot of material from Mrs. David B. King, II on July 12, 2019 and August 23, 2019. The donation is in honor of Colonel David B. King, II.

Biographical / Historical

Born and educated in Springfield Ohio, David Ward King (1857-1920), who was known as D. Ward King, moved to rural Maitland, Missouri after his marriage in 1881 and began life as a farmer. In 1896, he demonstrated the use of his simple invention, dubbed the "King Road Drag" or the split-oak drag, which consisted of two split logs attached by crossbeams and hitched with a loop of chain to horses, to be dragged along a stretch of rutted muddy road until it was smooth. His rudimentary road grader had the effect not only of flattening and compacting muddy soil, but creating a crest in the center of the road, sloping down at each side, so that the next rain would run off the packed surface into the ditch. This basic scheme had a revolutionary effect on rural life--farmers were often mired in mud on the roads to their fields or into town, their most powerful draft horses unable to contend with wagon wheels sunken into deep ruts after heavy rains. Use of King's drag soon made their roads not only passable, but faster and safer to travel, which saved time and money for all in the community.

In 1903, King was employed by the Chicago and North Western Transportation Co. to promote his product across the country as part of their "Good Roads Campaign," giving lectures and demonstrations. King patented the King Road Drag (US Patent 884,497 and US Patent 1,102,671) in 1908 and later improved it in 1914. The United States Patent Office called his invention a "Road Grader," but King referred to it as a "split log drag," the "King Road Drag,"

Although King patented his invention, the simple design made it difficult to enforce patent rights, so farmers were encouraged to build and make use of their own versions of the road drag. Even after the railroads withdrew their support (the road drag's success had the effect of sending more potential passengers on the roads with their bicycles and cars, rather than riding the train), King made a decent living for years on the lecture circuit, presenting in 46 of the 48 then- existing states and Canada. His midwestern education made him an eloquent, dynamic speaker, and his talks were often sold out. The invention of the road drag and its almost evangelical use across the country has been credited for increased automobile use in the early part of the century, as well as the advent of parcel post delivery and mail-order catalogue supply to rural areas.

Scope and Contents

This collection contains photographs, correspondence and articles documenting the road drag that D. Ward King invented to grade, drain water from, and improve the condition of rural roads in the early 20th century. Included are photographs of King, his family, the road drag, and the conditions of roads before and after treatment; a scrapbook containing letters and photographs; a blueprint of the road drag; as well as articles and reprints from various publications praising King's invention.

This collection would be of interest to researchers of the Good Roads movement, rural life and development in the early 20th century, and agricultural invention.

Arrangement

This collection is arranged into three (3) series.

Series 1: Correspondence, 1907; 1909

Series 2: Publications, 1903; 1907-1917; 1999

Series 3: Photographs, circa 1905-1915; 1908-1910; 1919-1920

Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

- Graders (Earthmoving machinery)
- Inventions
- Inventors -- 20th century -- United States
- Road drainage
- Road machinery
- Road scrapers
- Roads
- Roads -- Accessories
- Roads -- Design and construction

Types of Materials:

- Articles -- 20th century
- Blueprints -- 20th century
- Letters (correspondence) -- 20th century.
- Photograph albums -- 20th century
- Photographs -- Black-and-white photoprints -- 1900-1950
- Poems
- Reprints
- Scrapbooks -- 20th century
- Writings

Container Listing

Series 1: Correspondence and Speeches, 1907

Box 1, Folder 1	Correspondence, 1896-1925 Notes: Includes correspondence with the United States Department of Agriculture, Office of Public Roads; Congressman Halvor Steenerson (9th District Minnesota); and Congressman William E. Hull (16th District Illinois).
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Box 1, Folder 2	Drafts of letters to various editors on scratch paper, circa 1909
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Box 1, Folder 3	Letter to county judges in Oregon, Missouri re: bridge in bad condition, 1909 December 4
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Box 1, Folder 3A	Speeches, 1904, 1909, undated
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Series 2: Publications, 1903-1917, 1999

Box 2, Folder 1	Split-log drag blueprints: State Highway Department, undated
Box 1, Folder 4	Missouri State Board of Agriculture Monthly Bulletin: "Road Dragging" (extra edition), 1903 August
Box 2, Folder 2	Articles/information about King and the road drag, 1907-1909, undated
Map-folder 1	"Dragging Roads," The Evening Post, Nevada, Missouri, 1902-01-10
Box 1, Folder 5	Pamphlet: "How to Have Good Dirt Roads; a story of the split log drag" by D. Ward King, reprint from Technical World Magazine, 1909 September
Box 1, Folder 6	Western Life Mutual Insurance Co. "Quarterly," volume 4, number 1: reprinting of poem "The Man With the Drag," with explanation, page 10-11, 1910 January
Box 1, Folder 7	"Good Roads" articles and information, 1910, undated
Box 1, Folder 8	Promotional brochure pages for lectures/demos by King, undated
Box 1, Folder 9	"The Great Highway" (promotional brochure), undated
Box 1, Folder 10	Articles and editorials on road drags and Good Roads, 1910-1915
Box 2, Folder 3	Articles/information about King and the road drag, 1908-2005
Box 1, Folder 11	Poems about King and the road drag, undated
Box 1, Folder 12	Roads and Their Builders, 1971
Box 2, Folder 1	Drawing for Road Grader (US Patent 884,497), 1908-04-14

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Series 3: Photographs, 1919-1920, circa 1910-1915, 1908-1910

[Image\(s\)](#)

Box 1, Folder 13	Portrait of D. Ward King and sons, Robert Quigley King and David Bryant King, undated
Box 1, Folder 14	Men and boys posing with a road drag, possibly part of the "Good Roads Campaign", circa 1905-1915
Box 1, Folder 15	Horse-drawn drags, circa 1905-1915
Box 1, Folder 16	Home-made road drag pulled by tractor, circa 1905-1915
Box 1, Folder 17	Road drag pulled by roadster, circa 1905-1915
Box 1, Folder 18	Ditch cleaner, undated
Box 1, Folder 19	Horses and buggy mired in muddy road, circa 1905-1915
Box 1, Folder 20	Dragging residential roads, circa 1905-1915
Box 1, Folder 21	Dragging a forest road, circa 1905-1915
Box 1, Folder 22	Demo of road grade, before and after dragging, circa 1910-1915
Box 1, Folder 23; Box 2, Folder 2	Road demo: before and after dragging, circa 1910-1915
Box 1, Folder 24	Road drag demonstrations, circa 1910-1915
Box 1, Folder 25	Wagons on a road, before and after dragging, circa 1910-1915
Box 1, Folder 26	Scrapbook of photos and correspondence, 1919-1920, 1908-1910, undated

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Miscellaneous

Box 1, Folder 3B	Miscellaneous ephemera, 1907, 1912 Notes: Include an American Road makers membership (1907); a postcard from Cairo depicting a road making scene in Upper Egypt (1912), and notes.
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Map-folder 1	Banner, Good Roads Without Money/Hear D. Ward King/ Meridian, Apr. 24th/ He Will Show you, circa 1900
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Box 2, Folder 2	Horse Psychology , circa 1907 Notes: Includes advertisments for D. Ward King's lectures about and ability to break wild horses without touching them.
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