

Transportation

The carriages, spring wagons and sleighs patented and manufactured in Iowa were "favorably known throughout a large section of the country." For instance, it was said of Thomas Connally's carriage factory in Dubuque: "No establishment west of the Alleghenies . . . has achieved a more widespread reputation."

There were nearly as many patents for railroad and streetcar equipment as for means of land transportation. Although the railroad had been in Iowa for a comparatively short time, many Iowans were thinking of the comfort of the passenger and the improvement of the equipment.

Andrew Cathcart of Madison constructed a locomotive that, when required, could draw a heavy load up a steep inclined plane. Its speed on ordinary grades was not affected. Small-toothed wheels were added which prevented slipping on the rails.

Although river transportation was of great importance in those early days, few patents were secured. Of those, one or two pertained to ocean steamers. In addition, some inventions pertained to related activities—baggage checks, mail, and the telegraph.

Land Transportation

- Axle lubricator, wagon (2):** Loewenstein, Keokuk; Soellinger & Noetzli, Keokuk.
- Carriage (2):** Jack, Des Moines; Whitehead, Ames Station.
- Carriage bow irons:** Woeber & Woeber, Davenport.
- Carriage axle:** Bollinger, Cedar Rapids.
- Carriage brace:** Howe, Mt. Pleasant.
- Carriage brake (3):** Jones, Dubuque; Lewis (2), Iowa City.
- Carriage curtain:** Woeber, Davenport.
- Carriage hound:** Maddock, Dubuque.
- Carriage spring:** Woeber, Davenport.
- Carriage wheel:** Harman, Hamburg.
- Carriage, propelling:** Swank, Newton.
- Carriages, securing wheels of:** Bruns, Davenport.
- Carriage wheels, attaching rubber tires to:** Ham, Iowa City.
- Dumping platform:** Fish, Glenwood.
- Felly, carriage wheel:** Turley, Council Bluffs.
- Fifth wheel and coupling:** Silsby, Ottumwa.
- Hub, vehicle wheel:** Hitt & Chapman, Waterloo.
- Sled runners (5):** Berkeley, Cedar Rapids; Holdiman, Waterloo; Lockwood & Frederick, Marshalltown; Logan, Waterloo; Noble, Vernon Springs.
- Sleigh (4):** Arneman, Guttenberg; Heald, Marshalltown; Huyck, Chariton; Pierce, Waverly.
- Sleigh brake (4):** Ast, Maquoketa; Cassidy, Montezuma; Dutton, Iron Hills; Sloan, Highland.
- Sleigh shoes, mold for casting (2):** Russell, Cedar Falls; Sthore, Montana.
- Thill coupling (8):** Boynton, Lyons City; Clark, Davenport; Cole, Columbus City; Graves, Waterloo; McCargar, Masonville; Will, Columbus City; Woeber & Woeber (2), Davenport.
- Tongue support, wagon (2):** Houck, Iowa City; Nunamacker, Earlham.

Trucks, moving (7): Barlow, Van Meter; Bradstreet, Monticello; French (2), Davenport; Hoyt, Davenport; Rentgen, Keokuk; Walker, Albion.

Vehicle spring: Wright, Ft. Madison.

Vehicle wheel (3): Kellogg, Floyd; Lahman, Panora; Roberts, Waverly.

Wagon (3): Post, Clinton; Stamper, Pella; West, Saylorville.

Wagon bed (3): Balfour, Mason City; Bratton, Oskaloosa; Chatfield, Waterloo.

Wagon brake (10): Bean, Iowaville; Bennett, Burlington; Coe, Des Moines; Cook, Lyons; Egeberg, Columbus City; Pierce, Maquoketa; Roberts, Dubuque; Schultz, Mt. Pleasant; Urie (2), Springfield.

Wagon jack: Long, Council Bluffs.

Wagon loader: Johnson, Iowa City.

Wagon lock (3): Counts, Indianapolis; Kenyon, McGregor; Noethlick, Muscatine.

Wagon reach: Plumb, DeWitt.

Wagon seat: Rockwell, Glenwood.

Wagon standard (2): Harding, Ainsworth; Smith, Dixon.

Wagon step: Floyd, Bloomfield.

Rail Transportation

Ash pan, locomotive: Dee, Grand Junction.

Axle box, railway car: Campbell, Clinton.

Car axle (2): Hard (2), Decorah.

Car, barrel: Plantz, Iowa Falls.

Car brake (6): Borthwick, Montana; Lee (2), New London; Mitchell, Osceola; Portlock & Dodds, New London.

Car coupling (25): Allen & Boyles, Mt. Pleasant; Cady, West Union; Stewart, Lyons; Cary (2), Burlington; Clark, Burlington; Evans, Homer; Graves, Hickory; Hargar, Des Moines; Hughes, Nutting & Aldrich, Horton; Huston, Keokuk; Johnson, Ft. Madison; Kenworthy, Adel; Lockwood, Denmark; Mason, Keokuk; Moore (2), Lyons; Moore, Last Chance; Morris, New Sharon; Patton, Des Moines; Pearson, Sterling; Rague, Dubuque; Tichnor, Council Bluffs; Wheeler, Afton; Wheeler & Chase, Batavia.

- Car, dumping:** Sharp, Tama City.
- Car, hand:** Johnston, Eddyville.
- Car, railway:** Lawless, Montana.
- Car, railway cattle:** Street, Marshalltown.
- Car replacer:** Pullman, New Oregon.
- Car seat, railway:** O'Neill, Clinton.
- Car spring, railway (2):** Allen (2), Dyersville.
- Car starter:** Wheeler, Grinnell.
- Car, street:** Turner, Des Moines.
- Cars, combination brake and propelling mechanism for:** Hill, Jefferson.
- Cars, construction of seat:** Bundy, West Liberty.
- Cars, head support for railway:** Williams, Dubuque.
- Cars, loading cattle:** Cottle, Cedar Rapids.
- Cars, plow for unloading:** McMullin, Casey.
- Cars upon track, switch for replacing:** Pullman, New Oregon.
- Coach and car truss:** Chalender, Burlington.
- Fare box, streetcar:** Wormood, Dubuque.
- Journal lubricator:** Sellers, Keokuk.
- Locomotive cowcatcher:** Mitchell, Osceola.
- Locomotive for ascending inclined planes:** Cathcart, Madison.
- Plow, railway snow (3):** Hemenway, Lansing; Wheelock, Decorah; Wilson, Des Moines.
- Railway chair and tie:** Fouts, Albia.
- Railway gate:** Sherwood, Independence.
- Railway rail:** Tallant, Burlington.
- Railway switch (4):** Gelett, Keokuk; Pullman, New Oregon; Raymond, Charles City; Rockwell, Shell Rock.
- Railway train indicator:** Hemenway, Lansing.
- Spark arrester:** Dennison, Ottumwa.
- Stove, railway car:** Comstock, Keokuk.
- Streetcar:** Nichols, Osage.

Switching device (2): Patton, Hamburg; Sloan & Sweetser, Hamburg.

Track cleaner, railway: Blakly, Fairfield.

Truck bracket, railway car: Allen, Dyersville.

Truck, car: DeHuff, Summitville.

Truck, railway car (2): Allen, Dyersville; Thielsen, Burlington.

Truck, mode for applying bolster in: Harrison, Burlington.

Truck, mode for connecting railway car: Allen, Dyersville.

Turntable, suspension: Bonnell, Ft. Madison.

Valve gear, locomotive engine: Petersen, Davenport.

Weedcutter, railway: Boicourt, Boonesborough.

Wire-way, elevated railway: Killam, Ft. Dodge.

Water Transportation

Dock and wharf fender: Moomey, Clinton.

Governor for side wheel ocean steamers: Godfrey, Auburn.

Paddle wheel (3): Ehrhart, Muscatine; Merkel, Mt. Pleasant; Thompson & Doty, Chariton.

Propellers, elevating and depressing: Hill, Muscatine.

Propulsion for steamboats: Fellows, Maquoketa.

Rafting logs, mode for: Bouk, Clinton.

Rivers, devices for forming channels in: Harlan, Croton.

Rudder, vessel's: VanSant, Le Claire.

Valve for steamboat engine: Haley, Sioux City.

Related Patents

Baggage check (4): Cottle (2), Cedar Rapids; Curless, Cedar Rapids; McAlvin, Cedar Rapids.

Insulator, telegraph: Waite, Burlington.

Mailbag, airtight: Robbins, Iowa City.

Telegraph key: Bowers, Wheatland.

Telegraph cutout: Linn, Bloomfield.

Telegraph pole: Crandal, Marshalltown.

Telegraph sounder relay: Bryan, Cedar Rapids.

HOMER CALKIN—CORRINE CALKIN