

Home, Farm and Shop

The third largest group of inventions (422) was made up of items that might be found around the house, on the farm, or in a shop or store. They were varied in nature; many might be found as readily in town as in the country. Many seem quite simple to us today.

Farm Items

A number of traps were patented. They included a cage trap by Henry Bagley of Mechanicsville, used for catching prairie fowl, and the bird trap invented by Rudolph Rex of Charles City. The latter was supposed to be especially good for catching grouse and other birds which fed on the ground. Other traps were intended to catch rats, gophers and similar rodents.

Henry D. Brown of Tipton invented a sheep shearing chair. He claimed the parts that were new included oscillating racks for the sheep, adjusted and fastened by braces; a bolster attached to the chair by which the sheep's skin was prevented from wrinkling; and the manner of fastening the hind legs with straps and pins to keep the sheep from kicking the man who was shearing it.

Theodore G. Pelton of Lyons patented a "hog tamer" in 1865. To prevent a hog from rooting,

he inserted a piece of barbed wire in its nose.

An ox yoke that could be readily fitted and secured on the necks of animals was the contribution of Joseph Langenbach of Dorchester. The yoke could be adjusted to fit larger or smaller necks.

We may conclude that George W. Haviland of Ft. Dodge had encountered some pretty obstreperous cows. At any rate he patented a milking stool holder and guard to prevent a kicking animal from overturning the pail and spilling the contents.

Agricultural boiler (2): Cloud, Grinnell; Pryor & Ludwick, Kellogg.

Agricultural boiler and steamer: Hazen, Calmus.

Animal and bird trap (10): Bagley, Mechanicsville; Coppock, Dexter; Eddy & Wilber, Twin Springs; Henrie, Vandalia; Knight, Adel; McKay, Frankville; Parker, Winterset; Pittman, Ft. Madison; Rex, Charles City; Stamper, Pella.

Augers, earth (10): Ballard, Mt. Pleasant; Beach & Hanson (2), Hamburg; Burns, Anamosa; Christian, Hamburg; Gates, Perry Twp., Buchanan Co.; Harris, Dresden; Salyer (2), Corning; Wertz, Middletown.

Auger handle: Hemenway, Lansing.

Auger, well (2): Christian, Hamburg; Spees, Tabor.

Baling press: Purviance, Mt. Zion.

Branding stamp: Garretson & Draper, Oskaloosa.

Brush, rotary horse: McKay, Ossian.

Calf weaning device: Welling, Cedar Falls.

Corn crib: Clark, Pleasant Grove.

Crib ventilator: Ross, Davenport.

Doubletree: Martin, Clarence.

Draft equalizer (2): Collins & Stiles, Cedar Rapids; Shadduck, Lyons.

- Equalizer, three horse draft:** Toof, Ft. Madison.
- Fan, grain (2):** McPhail, Charles City; Reynerson, Pleasant Plain.
- Feed mangers and troughs (3):** Goss, Bloomfield; Steller, McGregor; Van Nest, Clayton.
- Feed-water heater (2):** Codling & McCunniff, Fairbank; Wilson, Columbus City.
- Grapple:** Dexter, Mason City.
- Grain fork:** Bullis, Manchester.
- Hedge shears:** Minor, Wapello.
- Hog tamer:** Pelton, Lyons.
- Holdback:** Kruse, Sabula.
- Horse power (5):** Berkely, Cedar Rapids; Bogue, Trenton; Heuermann, Davenport; Leibey, Davenport; Richardson, Onawa.
- Hotbed shutter:** Weed, Muscatine.
- Husking glove:** Titus, Independence.
- Lantern:** Naylor, Independence.
- Line and wire tightener:** Crosby, Manchester.
- Manure, appliance for distributing liquid:** Clark, Iowa City.
- Marking stock:** Devin, Ottumwa.
- Middlings purifier:** Scholfield, Dunlap.
- Milking device:** Nichols, Davenport.
- Oats from wheat, screen for separating:** Ferren, Decorah.
- Pens for livestock (4):** Dow, Davenport; Gifford (2), Pedee; Morley, Manchester.
- Plant and tree protector (4):** Mendenhall (2), Fairfield; Weed (2), Muscatine.
- Plow clevis (3):** Brison, Compentine; Stewart, Ft. Madison; Wright, Ft. Madison.
- Plow clevis pin:** McKiney, Earlham.
- Scraper, barnyard and road (2):** Langdon, Fairfield; Steffensen, Lyons.
- Sheep rack:** Stapleton, Iowa City.
- Sheep shearing chair:** Brown, Tipton.

- Sheep shearing machine:** Harsin & Sanders, Kirkville.
- Sheep shearing table:** Ellyson, West Branch.
- Sheep shears:** Johnson, Marshall.
- Sheep, device for holding:** Lewis & Lewis, Iowa City.
- Sieves, grain (7):** Carpenter (2), Buffalo Grove; Follett, Clermont; Mann (4), Burlington.
- Snap hook:** Hagny, Keokuk.
- Splinter bar, three horse:** Morrison, Ft. Madison.
- Stool, milking (2):** Haviland, Ft. Dodge; Hoit, Cedar Falls.
- Tap-borer:** Crocker, Maquoketa.
- Tumbling rod cover:** Heuermann, Davenport.
- Whiffletree (2):** Owen, Parkersburgh; Woeber, Davenport.
- Wire and rope stretcher:** Taylor, Golden Prairie.
- Wood, rack for hauling:** Landis, Colesburgh.
- Yoke and pole coupling, neck:** Skinner, Des Moines.
- Yoke, ox:** Langenbach, Dorchester.

Fences and Gates

Joseph F. Glidden of DeKalb, Illinois, received a patent for an "Improvement in Wire Fences" on November 24, 1874. His improvement became known as barbed wire and made possible the cheap and efficient fencing of vast areas of western farm lands.

The improvements in fences prior to that time were in making them portable, providing new types of support, and arranging the boards or slats in a new manner. For instance, Davis Harvey of Mt. Pleasant placed a narrow panel or a broad board on top of an ordinary fence. It projected

outward and upward at about 45°, far enough to prevent dogs and wolves from scaling or surmounting the fence. It was used to enclose sheep and protect them from the ravages of wild animals.

J. B. Reyman used wire to fasten pickets to rails in constructing his fence. The pickets, which were alternated, supported the rails in such a manner that the whole fence was held firmly and bound tightly together for any required length.

Iowans received 21 patents for various kinds of gates. A. L. Grinnell of Des Moines invented a gate that could be turned from the horizontal to the vertical. This left the passageway entirely clear.

A similar gate was invented by Patrick Freeman of Leroy Township, Benton County. It could be opened in the normal manner. In addition, it could be raised to a vertical position in case of obstruction, snowdrifts or rubbish. By raising it only a short distance, it allowed the passage of small animals, such as hogs and sheep, when it was desirable to separate them from larger animals.

The description of Freeman's gate does not seem to be too different from that patented by Franklin Ball of Cleona a year earlier. His gate was balanced on hinges, opening and closing like an ordinary hinged gate. At the same time it could be opened by elevating or raising it vertically. This was resorted to if there was snow or ice or

other obstruction that prevented the gate from swinging.

Fence (33): Abbott, Iowa City; Allison, West Dayton; Belt, Newton; Billings, Lyons; Brooker, Atalissa; Bundy, West Liberty; Carlisle, Columbus City; Crandal, Marshalltown; Crocker, Fredonia; Drummond, Mt. Pleasant; Ensminger, Richland; Faulkner (2), Mt. Pleasant; Force, Mt. Pleasant; Garside, Danville; Garver, Albion; Harvey, Mt. Pleasant; Haviland, Davenport; Hewett, Eagle Grove; Huxford, Boonesborough; Killian, Marshall; McMaken, Middletown; Milner, Des Moines; Montrose, Nashua; Morris, McGregor; Odell, Winterset; Orvis, Ellington; Prouty, Springfield; Reedy, Toledo; Reyman, Dubuque; Sherman, Geneseo Twp., Tama Co.; Wallis, Milton; Warner, Oskaloosa.

Fence post: Haviland, Ft. Dodge.

Fence post driver (3): Israel, Utica; Parker, Buffalo Grove; Watson, Albia.

Gates (21): Ball, Cleona; Balschmiter, Davenport; Brown, Keokuk; Freeman, Leroy Twp., Benton Co.; Greenside, Ft. Dodge; Grinnell, Des Moines; Harrah, Davenport; Harrier, Muscatine; Kent, West Union; Munger, Cedar Falls; Munger (2), Jaynesville; Noble, LaMotte; Regan & Mensy, LaMotte; Sibley (2), Ames; Smith, Ft. Madison; Spragg & Mott, Tabor; Van Eps, Farmington; Warfield (2), Muscatine; Webb, Muscatine.

Gate post: Hutson, Iowa City.

Hinge, gate (2): Greenside, Ft. Dodge; Hoar, Floyd.

Latch, gate (5): Bourne, DeWitt; Herrick, Independence; Klein, Oskaloosa; Lawton, Algona; Redhead, Des Moines.

Hardware

Nuts, bolts, joints, connecting rods and other parts used by plumbers, machinists and manufacturers were among the hardware items patented by Iowans.

Cock, cylinder (2): Dennison, Ottumwa; Kilgore, Washington.

Cutoff, water (2): Bixby, Iowa City; Stewart, Ft. Madison.

Nuts and bolts (7): Davis, Ft. Madison; Delfer, Burlington; Miller, Marshalltown; Smith (2), Ft. Madison; Stamper, Osceola; Stuart, Cedar Rapids.

Lubricator (2): Dickinson, Dubuque; Pelton, Lyons.

Pipe joint: Hammond, Tipton.

Pitman rod (3): Fish (2), Colfax; Ketchum, Estherville.

Shackle joint: Reiner, Columbus City.

Shaft coupling (2): Ross, Davenport; Uric, Corning.

Valve, pump (3): Barnes, Maquoketa; Clark, Pulaski; Moore, Lyons.

Universal joint: Heuermann, Davenport.

Harness

The 67 patents for harness ranged from bridle rosettes to tug clips. At least thirteen of them were related in some way to horse collars. C. J. Fisher of Waukon patented a collar with a wooden front portion. The rear portion was of leather or other flexible material.

A. A. Livingston placed an India rubber foot-piece in a stirrup. The foot was prevented from slipping in the stirrup, and the horse and rider were relieved from much of the jarring and jolting that came from using ordinary stirrups.

Iowa newspapers frequently printed lists of patents that had been issued recently. On January 18, 1868, the *Des Moines Register* listed a patent for a "Pad Crimp Press" granted to George Kennedy of Clarksville in Butler County. The newspaper writer added the following comment: "We suppose that last machine is a female machine—

at least, 'pads' and 'crimps' are suggestive of 'made-up' women. The patentee has doubtless been studying the female 'human form divine,' and seems to have had models to study by."

The writer in the *Register* was slightly in error. The pad crimp press was a machine by which the back pads of harness could be easily and accurately formed.

Awning frame for horses: Pullman, New Oregon.

Collar, horse (13): Barton & Stanley, Washington; Bratnober, Ft. Dodge; Fisher (3), Waukon; Gordon, Brighton; Harbaugh, Washington; Hull, Oskaloosa; Jones, Burlington; McClure (2), Wyoming; Sharp & Shannon, Tama City; Shipley & Moody, Montezuma.

Bridle: Mason, Bentonsport.

Bridle rosette: O'Brien, Cedar Rapids.

Buckles, harness (13): Abeel, Marshalltown; Barrows, Centerville; Brooks, Mt. Pleasant; Brown, Albia; Cissna, Burlington; Gaston, Lyons; Hagny, Keokuk; Kittleman (2), Bloomfield; Martin, Mt. Pleasant; McMillan & Rowan, Webster City; Schwaner, Keokuk; Seifert, Knoxville.

Halter: Porter, Ottumwa.

Halters, manufacturing: Ware, Burlington.

Hames (6): Alexander, Manchester; Kittleman, Bloomfield; Paddington & Crew, Waubeck; Stansbury, Marion; Tompkins & Wegand, Clarksville; Woolsey, Bloomfield.

Harness attachments (10): Beebee, Dubuque; Dickinson, Dubuque; Devin, Ottumwa; Garrett, Mt. Pleasant; Kerr, Ames; Lerew, Panora; Moore (2), Albia; Ward, Ward's Corner; Welpton, Tabor.

Harness tree (2): Sharp & Shannon, Tama City; Sturgess, Washington.

Line loop: McMillan, Osage.

Horse neck-pad: Fisher, Waukon.

Pad billet: Hays, Ames.

Pad crimp press: Kennedy, Clarksville.

Rein holder (2): Fahrney, Deep River; Gray, Elkader.

Saddle-tree, lady's: Rhodes & Hazlewood, Bloomfield.

Stirrup: Livingston, Cedar Rapids.

Trace attachments (8): Dowell, Vinton; Hiatt, Plum Hollow; Hutchinson, Burlington; Koss, McGregor; Porter, Ottumwa; Reed, Independence; Short, Gosport; Thompson, Ottumwa.

Tug clip: Welpton, Tabor.

Housekeeping Items

Many labor saving devices and improvements in housekeeping utensils were invented and patented. The greatest emphasis was on brooms, 13 being issued on this single item. Most were means of fastening the broom corn to the handle.

The object of S. M. Sherman of Fort Dodge was to obtain a stronger and more durable method of holding broom corn together in the proper shape and fastening it. In case the handle worked loose, as frequently happened, the broom fell apart. This inventor used metal bands or hoops to clamp the broom corn which was compressed by rivets through the bands.

Before the advent of electricity, gas lights and other improved methods of lighting, the candle was of great importance. August Hengstenberg of Muscatine received Patent No. 16,056 on November 11, 1856, for his candle mold. With his machine one person could produce 20 to 30 times more candles than by hand. It molded 36 perfect candles at one time.

The wick yarn on 36 spools remained stretched at all times. The candles being molded and cooled were pulled out all at once so none was broken or remained in the molds. The machine was light enough to be moved easily from place to place even when the tallow had just been poured and was hot. The construction of an ice- and water-box served in the summer to cool off candles in the mold. Candles could be made from tallow, sperm, stearin, wax or any material with equal facility.

Insects and flies were a nuisance to most Iowans. J. B. Lunbeck of Leon developed a compound to destroy the "borer" and other worms, grubs and insects which preyed on fruit and other trees. He used one gallon pine tar, one quart soft soap, one-half pint tobacco juice and one-half gallon of strong alkali. When these were well mixed, the compound was removed from the fire. One-half pint of unslaked lime and one pint of "strong dry ashes" were added and well stirred in. Then one ounce of oil of tansay was added. The mixture should be the consistency of thick paint, Lunbeck said. It was applied to the trunk of the tree.

Edward D. Pugh of Fort Plain combined a bottle in which honey and wax had been placed, a light and a pan partly filled with soapsuds or other liquid. Moths were attracted by the light. Some would fall into the liquid and be destroyed. Others

would enter the bottle and remain until removed and killed.

Basket: Sherman, Ft. Dodge.

Brooms (13): Bates, Cedar Rapids; Carpenter, Cedar Rapids; Copson, Hamburg; Crandal, Marshalltown; Kilgore, Washington; Langdon & Kellogg, Quasqueton; Langdon & Weitman, Hazleton; Paine & Caviness, Fairfield; Power, Middleton; Sherman (2), Ft. Dodge; Smith, Muscatine; Weitman, Independence.

Brush, scrubbing: Wood, DeWitt.

Bucket, wood: Vail, Keokuk.

Candle mold: Hengstenberg, Muscatine.

Carpet fastener: Clark, Des Moines.

Carpet sweeper: Hess, West Union.

Comb cleaner: Toof, Ft. Madison.

Dust pan: Morgan, Davenport.

Fire kindler (5): Batcheller, Des Moines; Lowe, Ottumwa; Smith, Dubuque; Van Ausdall, Keokuk; Winkley, Des Moines.

Fly trap (3): Parker, Dubuque; Rosentrater, Des Moines; Whitmore & Beebe, Waterloo.

Foot-warmer and reflecting lamp combined: Merwin & Metcalf, Dubuque.

Insect destroyer (4): Bennett, Janesville; Lunbeck, Leon; Pugh, Ft. Plain; Shockey, Mt. Pleasant.

Lantern, insect trap: Pitman, West Point.

Matchbox: Burhans, Burlington.

Mop (2): Kirkwood & Riley, Iowa City; Cook, Sioux City.

Mop wringer: Bradway, Maquoketa.

Mop wringer and scrubber combined: Winter, Cedar Falls.

Picture frame hanger: Moulton, Des Moines.

Potato bugs, machine for destroying: Pitchforth & Benson, Muscatine.

Quilting frame: Simmons, Chariton.

Razor strap: Wolf, Ft. Madison.

Safe, kitchen: Coletrane, Cedar Twp., Van Buren Co.

Shawl or dress pins: Strong, Lansing.

Toilet case: Dapron, Davenport.

Items for the House

Many items closely related to the house were invented. Among these were door bolts and latches, flooring, lightning rods and window blinds of various types.

William Hall of Dubuque patented "William Hall's Continuous Cylindrical Lightning-Rod" in 1868. He claimed these advantages: perfect continuity; perfect uniformity, causing an equal distribution of the free electricity over the entire surface of the conductor, and offering no obstruction to its transmission; and great strength and durability.

Nathaniel Otis of Charles City patented a hollow lightning-rod formed without joint or break from top to bottom.

Round sticks in place of flat strips or slats were used as sections of a window shade by Adolph Binner of Muscatine. They were not likely to cut or quickly wear out the cords. T. B. James, also of Muscatine, used square or lozenge shaped sticks woven together so the passage of the sun's rays was prevented, but light and air could pass through the inclined spaces between the sticks.

S. M. Sherman of Ft. Dodge used metallic in-

stead of wooden dowels in his window blind. *The Dubuque Times* noted that to all appearances it could be constructed cheaply. It was simple, convenient, and "we should think will soon come into general use."

The firm of Herrick and Sherwood was in business in Independence from 1862 to 1868. They sold watches, jewelry and silverware. It is interesting to note that C. F. Herrick's four patents did not pertain to any of these. Instead he invented curtain fixtures and door latches.

Alarm lock: Swingle, Davenport.

Blinds, window and venetian (7): Andresen & Aabahr, Davenport; Byam, Ft. Dodge; Sherman (2), Ft. Dodge; Sloan (2), Hamburg; Swafford, Butler & Hess, Muscatine.

Burglar and fire alarm: Giebrich, Ottumwa.

Cistern regulator (2): Beach, Iowa City; Plumb, Davenport.

Curtain fixtures (6): Herrick (2), Independence; Hobart, Mt. Pleasant; Marinus, Independence; Smith & Foster, Des Moines; Taylor, Dubuque.

Doorbell: Stuart, Cedar Rapids.

Door catch (3): Blood, Independence; Devin, Ottumwa; Phillips, Council Bluffs.

Door lock (3): Clark, Mt. Pleasant; Fisher, Waukon; Roberts, Lacona.

Doors, hanging: Holly, Low Moor.

Fire alarm: Coulson, Oskaloosa.

Fire escapes (7): Buttkerreit, Toledo; Hancock, Lansing; Heuermann (2), Davenport; Knocke, Davenport; Sharp & Hollenbeck, Tama City; Wahle, Davenport.

Floor: Wood, Marion.

Keyhole guard: Russell, Prairie City.

Latch, door (3): Gammell, Spring Valley; Herrick, Independence; Stuart, Plainfield.

Lightning rod (2): Hall, Dubuque; Otis, Charles City.

Mirror, window: Voss & Brandt, Davenport.

Sash and door bolt: Woodman, Dubuque.

Sash balance: Rand, Dubuque.

Sash cord clamping device: Rand, Dubuque.

Sash fastener (6): Ball, Wilton Junction; Bonnell, Ft. Madison; Clark (2), Mt. Pleasant; Coin, Boonesborough; Smith, Cedar Falls.

Sash frame: Cowdery, Wheatland.

Sash holder (8): Ball, Sioux City; Cowles, Burlington; Hanna, Rossville; Kramers, Marion; LaDue, Carroll City; Morgan, Davenport; Sweetzer, Hamburg; Wilmot, Montana.

Shutter fastener: Hanna, Rossville.

Shutter, window (2): Brown, Springville; Sherman, Ft. Dodge.

Window cord locking device: Rand, Dubuque.

Window shade (5): Binner, Muscatine; James, Muscatine; Marinus, Independence; Simmons, Davenport; Vetter, Muscatine.

Tools

Iowa inventors turned their attention to improving wrenches, screwdrivers, ax handles, and other tools in common use. David Drummond of McGregor patented a screwdriver that revolved like a brace or in the ordinary manner by revolving the handle. W. A. Sharp of Tama City combined a spirit level, try square, bevel, sliding gage, foot rule and marking gages in a single instrument.

Samuel W. Wakefield of Keokuk patented a wrench with a tapered slot that would fit nuts of various sizes. There is a striking resemblance to wrenches being sold at present.

Benjamin D. Stevens of Decorah used a wedge shaped piece of rubber in fastening an ax head on the handle. He called it "Stevens' Handle Saver." The vise of H. C. Hunt of Ottumwa was constructed so that it would retain itself upon a table or bench.

Adjustable bit: Jonas, Burlington.

Ax handle: Stevens, Decorah.

Ax handle guard: Hoit, Cedar Falls.

Bevel: Sharp, Tama City.

Bolt cutters (4): Butler & Dunham, Marshalltown; Peters, Davenport; Taylor, Onslow; Thiesen, Waukon.

Bung cutter: Sternberg, Davenport.

Chain hook: Weed, Lyons.

Depthing tool: Rush, Fairfield.

Drill: Nottingham & Duncan, Vinton.

Drilling and babbiting jig: Underwood, Muscatine.

Floor clamp (2): Blinn & Hewett, Dubuque; Patlock, Pleasant Grove, & Smith, Toolesborough.

Gage and try square (2): Castle (2), Montana.

Grindstone: Farris & Miller, Red Rock.

Hammer, power: Harrison, Maquoketa.

Hay knife: Wolfe, Lytle City.

Ice cutter: Marvin, Keokuk.

Joiner's clamp: Todd, Mechanicsville.

Lever shears: Sandgren, Lyons.

Lifting jack: Diver, Boone.

Measuring can for liquids: Bridge, Leon.

Metal cutter and shearer: Dubois, Boonesborough.

Pinchers and grappling tool: Dexter, Mason City.

Pipe wrench: Woodruff, Lansing.

Plane: Odell, Winterset.

Plane bench: Hunt, Ottumwa.

Planing irregular surfaces, machine for: Nelson, Oskaloosa.

Pruning shears (3): Bell, Wapello; Gilbert, Camanche; Samson & Dill, Crawfordsville.

Punch, portable: Lafely, Ottumwa.

Saw filing and setting machine: Ross, Mitchellville.

Saw filing gage: Tyson, Otho.

Screw driver: Drummond, McGregor.

Screw-wrench: McDonald, Dubuque.

Shovel handle: Alsip, McGregor.

Tool handle fastening: Sweat, Harlan.

Try square: Toof, Ft. Madison.

Vise (2): Hunt, Ottumwa; Johnson, DeWitt.

Wire cutter: Johnson, Marshalltown.

Wrench (5): Delfor, Burlington; Dunlap, Maquoketa; McDonald, Dubuque; Owen, Homer; Wakefield, Keokuk.

Wrench and grappling tool: Dexter, Mason City.