



CAROL STUART WATSON

*The Beall-Dawson House, c. 1815
home of the Montgomery County Historical Society
103 W. Montgomery Ave., Rockville, Maryland*

THE MONTGOMERY COUNTY STORY

Published by the Montgomery County Historical Society

Nancy S. Hafer
President

Mary Charlotte Crook
Editor

Vol. 29

November 1986

No. 4

MONTGOMERY COUNTY INVENTORS AND INVENTIONS, 1803-1873

by Mark Walston

The inventors of early America have attained an almost heroic stature in our nation's history. Eli Whitney, Cyrus McCormick, Samuel F.B. More - their names recall a time of unbridled optimism in the progress of the United States; and their inventions - the cotton gin (1794), the reaper (1834), the telegraph (1840) - stand as shining symbols of American ingenuity.

There is no denying the significance of these "landmark" inventions in the creation of a national cultural and technological standard. They are, however, isolated inventions among the many which preceded and succeeded them, many of those going before having laid the groundwork for the subsequent "landmark."

Some of the less-popularized inventions had as great an impact upon the life of young America, although often of a more immediate or local nature. All grew out of need; some never transcended the personal necessity which prompted their creation, and some were of dubious benefit to either the inventor or society. Nevertheless, most inventions, when considered in their historical setting, are reflections of specific cultural, social, or technological needs.

From the records of the United States Patent Office it is possible to identify the patents issued to Montgomery County residents. However, before these patents are identified and discussed, a review of the early history of the Patent Office provides some background information.

The first federal patent act was signed into being by President Washington in 1790. Under the provisions of that act, a board consisting of the Secretary of State, the Secretary of War, and the Attorney General was invested with the responsibilities of patent review and issuance. The inventor was required to submit a description, a drawing, and, when possible, a model of the invention. Among other considerations, the board was to determine, if able, whether the proposed invention was truly new rather than an insignificant modification of a previous patent.

In the first years of existence, however, the three-member board found this application-review procedure too burdensome an addition to their other duties. In 1793, the law was changed, reducing the patent board to only one member, the Secretary of State. In addition, the issuance process was redesigned into what was, in effect, merely a registration system under which patents were granted to applicants with the intention of leaving it to the courts to decide which inventions were, in fact, new.

The 1793 system, which remained in force for the next 33 years issuing unnumbered patents, was eventually deemed inadequate in protecting the individual inventor's interests. In 1835, Senator John Ruggles of Maine, himself an inventor, initiated congressional action which resulted in the establishment of a new patent system. Under the act of 1836, the Patent Office, headed by a Commissioner of Patents, was made a separate bureau under the Department of State, and the former registration system was supplanted by the original examination system, by which appointed examiners reviewed each application for originality. Patents were, for the first time, assigned serial numbers, with Patent Number 1 issued July 28, 1836, to Senator Ruggles for an improved "locomotive steam engine for rail and other roads."

A significant number of patents were issued to Montgomery County residents in the first three-quarters of the nineteenth century - prior to the onset of technical specialization. Only one of these 38 inventions can be considered a "landmark" invention, but all, when taken in context, can be read as real expressions of the day-to-day concerns of county residents over a century ago.

Farming was still the first order of business in Montgomery County during the nineteenth century, and so, obviously, the majority of inventors of that time turned their attention toward improving the means and methods of agricultural production. These inventions derive primarily from the farmers themselves, inspired perhaps by encounters during the normal working day with things that did not work quite right, whether it be a plough that cut a poor furrow or a harvester that left behind too much grain. The inventions run the gamut from insignificant modifications of existing methods to bold attempts to solve hitherto unresolvable problems.

Of the latter group, the most striking example is an invention which holds the double distinction of being not only the first invention patented by a Montgomery County resident, but the most significant of the county's early nineteenth century inventions. On January 27, 1803, Thomas Moore, a Quaker and farmer of the Brookeville area whose long concern with the improvement of American agriculture earned him a friendship with the fellow agrarian Thomas Jefferson, was issued an unnumbered patent on a new device which Moore claimed would help farmers keep their dairy products fresh while being hauled to market. Essentially, the invention consisted of two different sized boxes, a smaller box set inside a larger box, with the cavity between the walls filled with coarse woolen cloth. Butter, milk, or other perishables then could be packed with ice inside the insulated inner box and taken over long distances without spoiling.

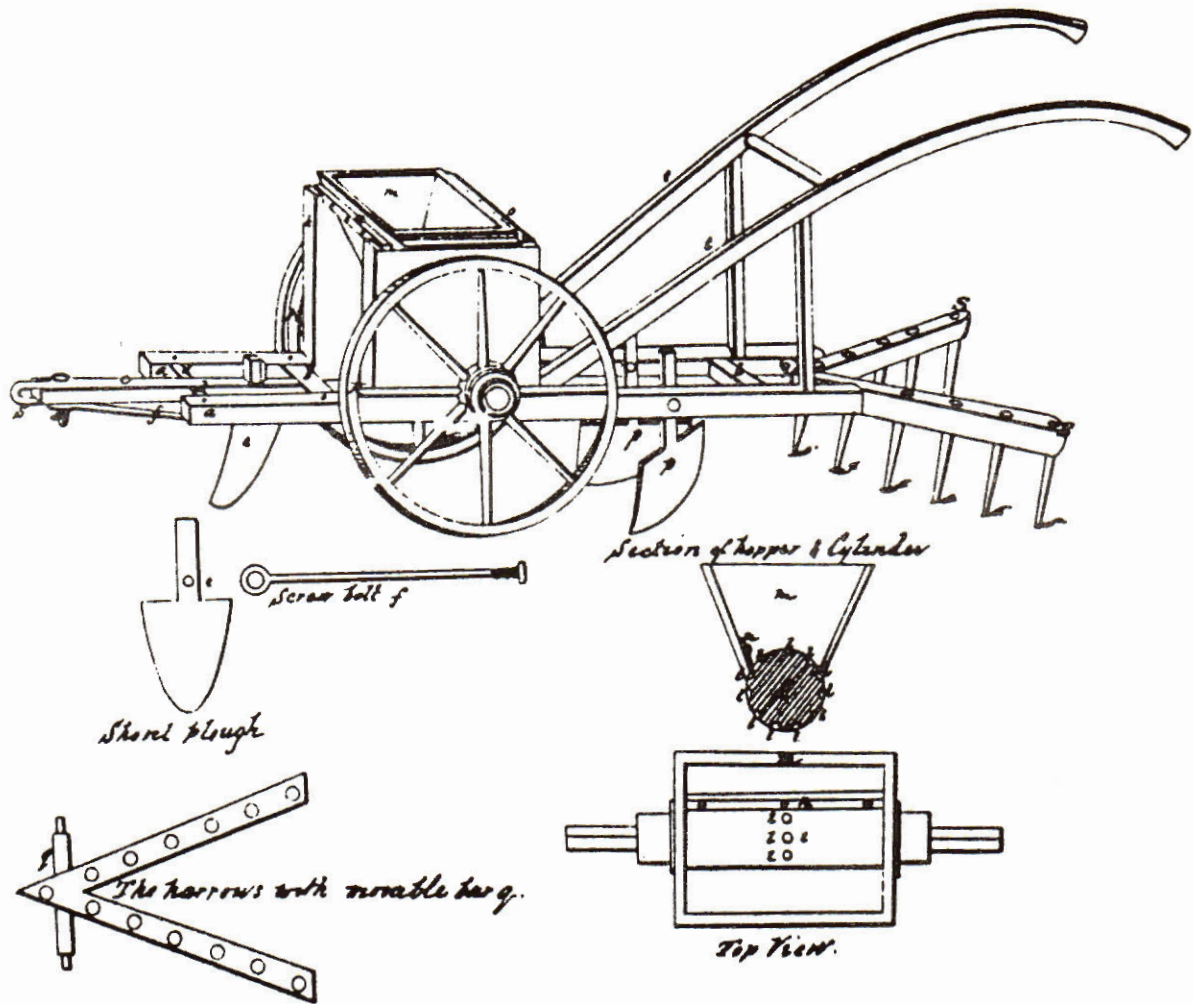
The word Moore coined to describe his new invention - derived from the Latin "refrigerāre, to cool repeatedly" - is now applied to the kitchen appliance used by millions of Americans daily: the refrigerator. The principle of Moore's "ice box" continued in use until the advent of electrically powered domestic refrigerators in the early twentieth century. Unfortunately Moore's rendering of the early refrigerator was lost when a disastrous fire swept through the Patent Office in December 1836.

Moore apparently granted licenses to various Baltimore businesses for the commercial manufacture of his invention, but it is not known whether or how many of the devices were actually built and sold. Moore, as well, universally extended permission to the poor to construct his patented invention without charge for their own use.

Perhaps the most intriguing of agricultural patents was that issued to Henry Blair, a freeman from Montgomery County who, in 1834, reportedly became the first black American to receive a patent from the United States Patent Office.

During the 1830's, Blair lived at Glen Ross, a farming hamlet located near present-day Silver Spring. The community took its name from the nearby estate of the Cissel family; Glen Ross Road, near the present intersection of 16th Street and Georgia Avenue, today marks the community's former location.

Few details are known of Blair's life. Like so many of the county's "common folk," he left behind no letters, no diaries, very little for later generations to know him by. As a free black, Blair was most likely a tenant farmer. Courthouse records do not reveal Blair as a landowner, and it would be surprising had it been otherwise, since most whites in Montgomery County before the Civil War were hesitant to allow blacks to establish freeholds in their communities.



Henry Blair's "Seed-Planter," Patented October 14, 1834,
Unnumbered (U.S. Patent Office)

In contrast to many of his neighbors who could cultivate large tracts of land using slave or hired labor, Blair, a solitary farmer, had to make do on his own. And therein lay the inspiration for his patented device; in Blair's case, the old adage rings true, that "necessity is the mother of invention."

In an attempt to reduce the amount of time and energy expended in cultivating his land, Blair combined in one machine the three-step process of ploughing, sowing, and harrowing a field. To the front of his horse-drawn machine Blair attached a shovel plough to cut a single furrow in the earth, into which seeds were automatically dropped from a hopper mounted above the axle of the two large wheels which helped to move the machine. Small cups set in a single line around the middle of the axle collected the seeds; the turning of the wheels spilled them out in a row. Angled blades located behind the hopper then closed the furrow, and soil was spread over the row by the teeth of a light harrow trailing behind.

None of the parts of Blair's machine were particularly new to farming; it was *how* they were all put together that made the invention unique.

Henry Blair must have been quite a sight to neighboring farmers watching as he guided his "new fangled contraption" over the open fields. Some perhaps scoffed at the notion of a black man inventing anything of worth. But others, impressed by the ingenuity of the device, undoubtedly encouraged Blair to patent his machine, lest his idea be stolen.

Blair did just that, and, on October 14, 1834, the United States granted Henry Blair a patent on his new "seed-planter." Since the law at that time barred issuance of patents to slaves, Blair had to prove his freedom before he could be issued the patent. In the patent record, Blair is described as "colored," the only man so designated in the history of the Patent Office.

Again, it is not known whether Blair built more than one model of his machine, or whether the seed-planter was put into production by others. Nor is the fate of Blair himself known, for after 1834, no record of him has been found in Montgomery County.

Adequate transportation, for both people and products, was as much a concern in the nineteenth century as it is today, and a number of Montgomery County inventors turned their attention toward improving existing means. Their inventions range from the simple modification of the lever-type wagon brake made by B.R. Codwise, a farmer of Montrose (Patented December 17, 1867, Number 72370), to the sulky prototype made by the Sligo wagon builder, Jesse Jenkins (Patented November 1, 1870, Number 108911).

Perhaps the most peculiar new vehicle patented by a county resident was created by Basil B. Pleasants of Brookeville. Pleasants, variously a farmer, a miller, and a prospector, apparently was disturbed by the occasionally soggy condition of mail delivered by postmen driving open wagons in pouring rain. To remedy the situation, Pleasants devised a "weather proof mail carriage" (Patented December 7, 1837, Number 509). The carriage essentially consisted of a large barrel turned on its side and

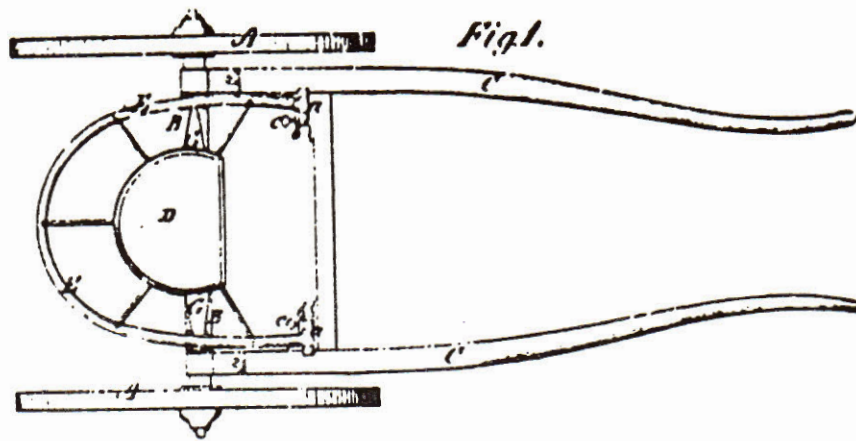


Fig. 1.

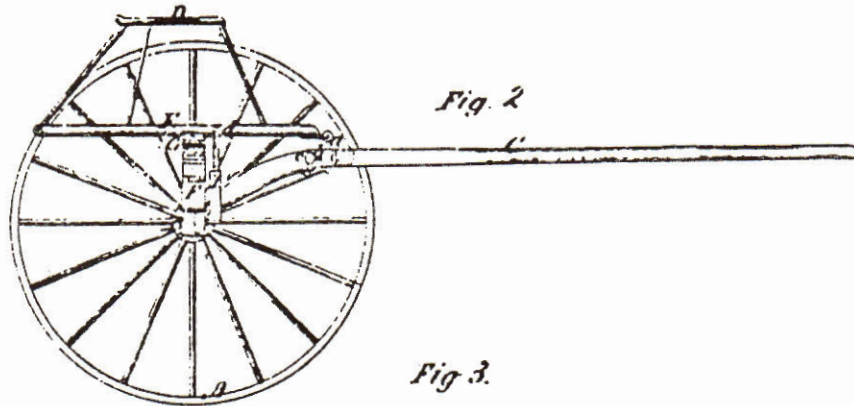


Fig. 2.

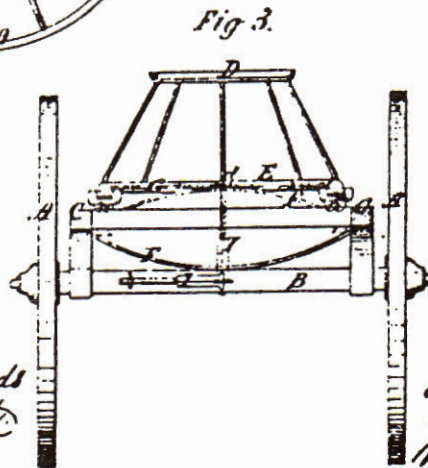
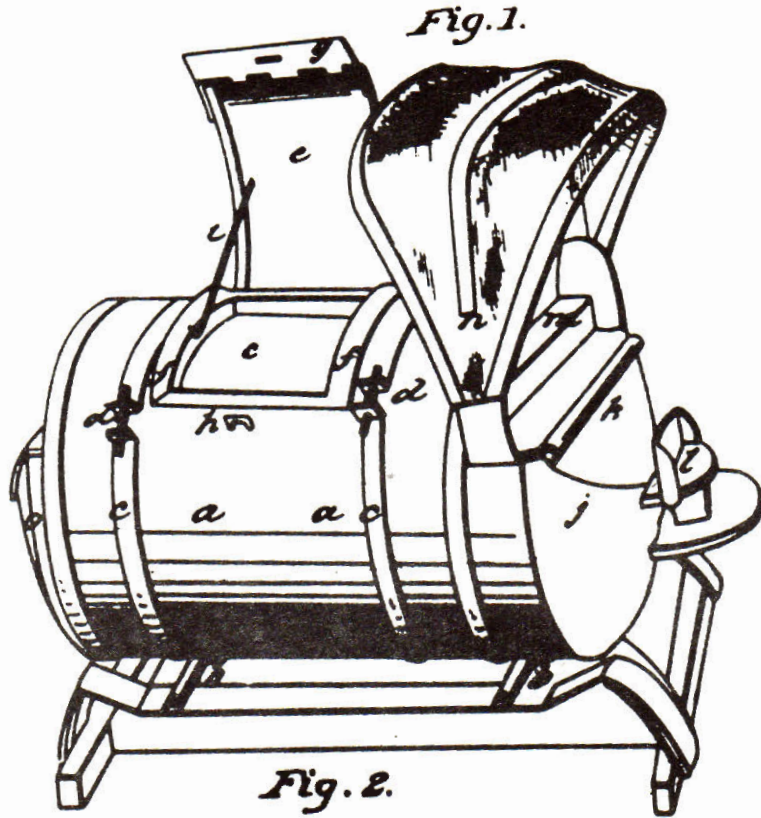


Fig. 3.

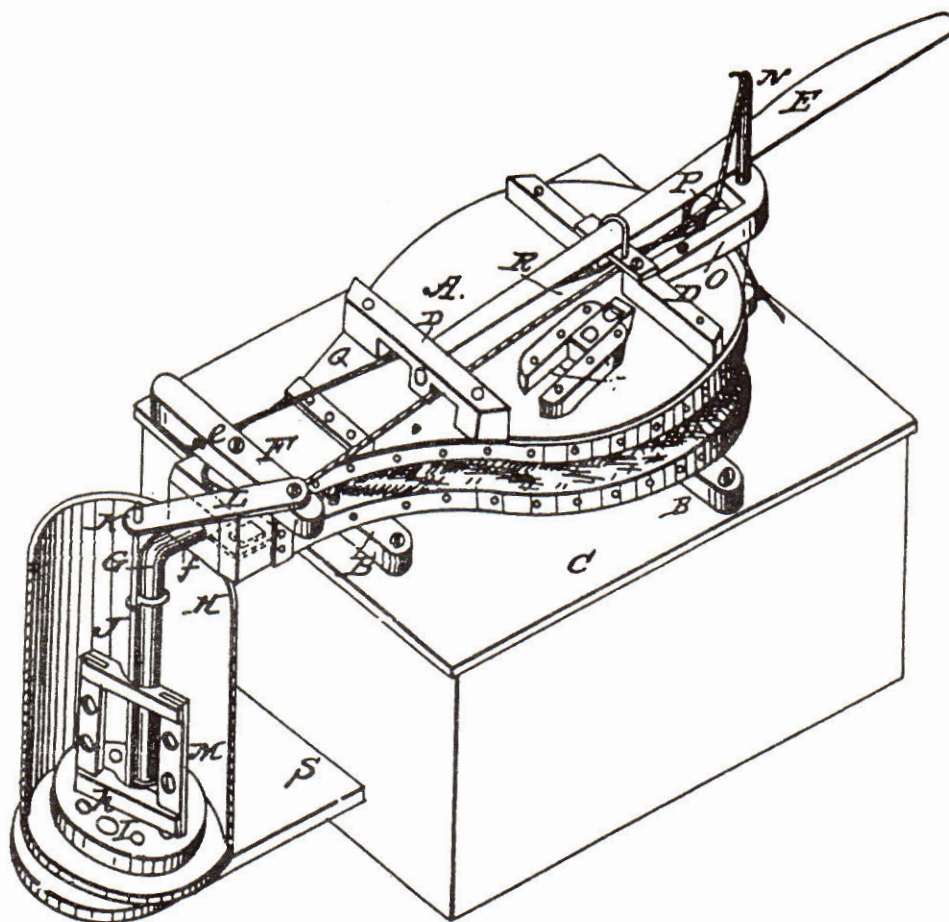
Witnesses.
 William H. Woods
 Henry H. Lygatt

Jesse Jenkins.
 By his Attorney,
 McPherson & Johnson

Jesse Jenkins' Sulky, Patented November 1, 1870,
 Number 108911 (U.S. Patent Office)



Basil B. Pleasants' "Water Proof Mail Carriage," Patented
December 7, 1837, Number 509 (U.S. Patent Office)



Witnesses
Octavius Knight
James W. Wright

Inventor
C. T. Anderson
By *[Signature]*
Attorney

Charles T. Anderson's Churn, Patented June 18, 1861,
Number 32553 (U.S. Patent Office)

set atop a wagon frame. On the upper wall of the body was a hinged door, sealed by a rubber gasket and fitted with a hasp, enabling the cylinder to be locked tight. If all postmen used this new carriage, Pleasants reasoned, the mail would not only be secure from theft but would be "protected from the weather or from being injured by submersion in water." It is uncertain if anyone in the postal service ever made his rounds in Pleasant's patented mail wagon.

In the realm of domestic-use inventions was that of Charles T. Anderson, a carpenter and blacksmith from Hyattstown. He devised an unusual churn which drew its power from the dual action of a bellows; the lever action of the bellows spun the dasher, while the forced air, directed by tubes, helped to keep the cream moving. What truly distinguished Anderson's "new and improved churn" (Patented June 18, 1861, Number 32553), however, was that, much like modern electric hand mixers, the dasher arrangement allowed the user to churn cream in any receptacle desired, whether it be "a wooden firkin, a common water pail, a can or a box."

By 1865, Anderson had relocated to Clarksburg where he had set up a carpenter and blacksmith shop on the northern end of town, from which he presumably also made his patented churn available to any area homemakers interested in the "modern" method of churning.

These five patents are but a sample from the following list of patents issued to Montgomery County residents for the period 1803 through 1873. This list was compiled from the U.S. Patent Office yearbooks and from the *Subject Matter Index of Patents for Inventions Issued by the United States from 1783 to 1873, Inclusive*, compiled and published under the direction of Commissioner of Patents M.D. Legget in 1874. All spellings of names and residences are as they appear in the documents.

MONTGOMERY COUNTY PATENTS, 1803-1873

<u>Invention</u>	<u>Inventor</u>	<u>Residence</u>	<u>Date Granted</u>	<u>Number</u>
Bone and Plaster Mill	S.W. Powell	Brookeville	December 17, 1867	72418
Buckle	T. Duncan	Brookeville	June 21, 1870	104564
Carpet Stretcher	A.S. Richards	Montgomery Co.	November 1, 1870	108938
Carriage, Water Proof Mail	B.B. Pleasants	Brookeville	December 7, 1837	509
Cement for Lining Oil Barrels	S.H. Jones	Sandy Spring	August 20, 1867	67880
Churn	C.T. Anderson	Clarksburg	August 2, 1865	47507
Churn	C.T. Anderson	Hyattstown	June 18, 1861	32553
Fence, Flood	Z. Dowden and C.T. Anderson	Clarksburg	March 23, 1869	88447
File, Paper	A.S. Richards	Montgomery Co.	June 15, 1869	91268
Fire Arm Magazine, Cartridge				
Retractor for	E. Stabler	Sandy Spring	December 6, 1864	45356
Harvester	R.M. Williams	Rockville	October 12, 1869	95864
Harvester, Corn	C.S. Stull	Poolesville	February 28, 1871	112191
Harvester Cutting Apparatus,				
Corn and Cane	J.W. Batson	Triadelphia	July 29, 1856	15409
Harvester Raking Apparatus,				
Corn and Cane	J.W. Batson	Triadelphia	July 29, 1856	15408

<u>Invention</u>	<u>Inventor</u>	<u>Residence</u>	<u>Date Granted</u>	<u>Number</u>
Hoe and Roller, Combined	E. Blanchard	Poolesville	April 25, 1873	137124
Hay Fork, Horse	A.G. Thomas	Sandy Spring	April 6, 1869	88754
Hinge, Shutter	T.F. Duley	Olney	October 22, 1872	135512
Inkstand	T. Duncan	Brookeville	May 23, 1871	111041
Milker, Cow	W. Redding	Offuts X Roads	October 17, 1871	120100
Nails, Manufacturing and Brads from Rolled Iron	J. Elgar	Brookeville	December 16, 1803	--
Planter, Corn	H. Blair	Glenross	October 14, 1834	--
Planter, Corn	W.C. Bowman	Clarksburg Dist.	May 16, 1871	114908
Planter, Corn	Z.D. Waters	Brookeville	July 1, 1873	140562
Planter and Fertilizer, Corn	B.F. Grimes	Dawsonville	May 28, 1867	65073
Plough	G. Davis	Sandy Spring	May 26, 1818	--
Potato Digger	I. Shaw	Four Corners	March 23, 1869	88088
Potato Digger	I. Shaw	Four Corners	April 13, 1869	88916
Pump, Pneumatic Breast	J.P. Stabler	Sandy Spring	June 19, 1834	--
Railway	J. Elgar	Brookeville	March 12, 1845	3947
Refrigerator	T. Moore	Maryland	January 27, 1803	--
Reaper	O. Dorsey	Triadelphia	June 24, 1856	15174
Seeding Machine	Z.D. Waters	Brookeville	April 10, 1866	53909
Shafts to Vehicles, Attaching	S. Thompson	Montgomery Co.	April 7, 1868	76357
Steam, Manufacturing of Artificial	W.K. Boyle	Brookeville	September 15, 1868	82202
Sulky	J. Jenkins	Sligo	November 1, 1870	108911
Tewell and Water Back	G. Davis	Sandy Spring	May 26, 1818	--
Wagon	J. Jenkins	Sligo	November 28, 1871	121378
Wagon Brake	B.R. Codwise	Montrose	December 17, 1867	72370