The Samuel Jackson – George Washington Surveyor’s Compass

There was no scientific instrument of greater value to the settlement of America’s western frontier lands than the surveyor’s compass or “circumferenter.” Consisting of a compass and protractor indicating points and degrees, often mounted on a turned block of wood with a sighting arm on either end, the circumferenter enabled American frontier surveyors to plot horizontal angles in determining the boundaries of a piece of land. Set on a simple tripod and used in conjunction with two poles connected by a chain with which to measure distance, the circumferenter was an essential tool in determining, measuring and marking the myriad claims, grants and purchases of settlers and speculators who vied for ownership of western Virginia during the mid-eighteenth century.

A possibly unique example of an early American circumferenter which was used in surveying land in Monongalia County, West Virginia and Fayette County, Pennsylvania during the late eighteenth and early nineteenth centuries was recently donated to the West Virginia and Regional History Collection. Made of brass and wood, the instrument is believed to have once belonged to George Washington. Included with the compass are two finely engraved rules: a two-foot “Gunter scale,” and a six-inch sighting rule which bears the initials “GW” and the date “1781.”

While surveying sounds like a relatively safe, if tedious and exacting task to the modern mind, it was not nearly so sedate or precise during the early settlement period in American history. In terms of safety, danger lurked around every corner whether in the form of flora and fauna or mankind.
Monongalia County's first surveyor, John Madison, met his end when he was ambushed by Indians while plying his trade in 1783. Surveyors also found themselves embroiled in local disputes regarding competing and overlapping claims. Such disputes were exceedingly common for a variety of reasons including, among others, the limited skill of some frontier surveyors. Furthermore, to encourage settlement in the west, the state of Virginia had a policy of rather indiscriminately granting up to 400 acres to anyone who occupied the land and made "improvements." These claims were often staked by merely chopping blaze marks on tree trunks at the corners of the claimed property. While the state's definition of "improvements" included clearing at least several acres, many claimants did little more than score some trees which made their claims technically invalid. Legitimate claimants often abandoned their claims for one reason or another and upon returning years later found that others now claimed the properties. This situation was further complicated by the fact that the state of Virginia miscalculated the extent of its western lands and granted rights to more land than actually existed.

For all the above reasons, the ability to accurately survey land was a valuable skill on the frontier, and all who had even a rudimentary knowledge of the trade found ready employment as well as professional respect akin to that accorded to doctors and lawyers. The profession also offered unlimited opportunity to gain personal wealth through the knowledge of how to select and acquire choice tracts of land in one's own name.

Among the earliest and certainly most celebrated surveyors of the present day West Virginia frontier was George Washington. Washington decided to pursue a career in surveying after his half-brother's suggestion that he become a seaman was vetoed by his mother. Mary Ball Washington no doubt changed the course of history when she declared that she'd rather see her fourteen-year-old son "apprenticed to a tinker" than face the harsh existence of life at sea. She evidently found surveying to be a much more suitable profession.

Washington began studying surveying in earnest during the summer of 1747 when he was fifteen years old. His lesson books and notes, which
Thomas Fairfax, 6th Lord Fairfax of Cameron (1693-1781)

survive to this day, document his exercises in mathematics, and in the use of a compass and plotting scale to measure acreage and draw the boundaries of a parcel of land to scale. Tutored initially by an unknown local surveyor, during the spring of 1748, he served a brief apprenticeship with the surveyor for Prince William County, James Genn. Genn was at the time engaged in surveying several large tracts of land belonging to colonial Virginia’s premier landowner, the American colonies’ only resident nobleman, Thomas Fairfax, 6th Lord Fairfax of Cameron.

Born in 1693 at Leeds Castle in Kent, England, Lord Fairfax inherited more than five million acres situated between the headwaters of the Potomac and Rappahannock rivers in 1719 stemming from a grant made by Charles II to his ancestors in 1649. Lord Fairfax relied initially on an agent named Robert “King” Carter to manage his lands, collect rents and handle sales of his property. When Carter died, he discovered that his agent had amassed a great fortune through these transactions, an extraordinary number of which benefited his (Carter's) own relatives. Lord Fairfax thereafter took a more proactive role in managing his affairs. Engaging his cousin, William Fairfax, to serve as his agent henceforth, he eventually decided to emigrate to America in order to personally oversee his Virginia holdings. He had only recently established residence in America when he met and befriended young George Washington whose family happened to be distantly related to a branch of the Fairfax clan.

In March 1748, sixteen-year-old Washington embarked on his first field excursion, and first trip west of the Blue Ridge Mountains, in the company of Genn, William Fairfax and the latter’s son, George William Fairfax. Heartily impressed by the “beautiful Groves of Trees...and richness of the land,” Washington became enamored with the Shenandoah Valley and with the concept of owning a stake in Virginia’s pristine western lands.

It was likely through Lord Fairfax’s patronage that Washington was appointed to his first public office, Surveyor of Culpeper County, the following year at just seventeen years of age. Over the next four years he completed literally hundreds of surveys for dozens of clients. Rather than in Culpeper County, which was relatively settled by this time, most of his activity occurred in Frederick County, which was largely virgin country and then encompassed all of West Virginia’s Eastern Panhandle. He performed a number of surveys during these years for members of his own family, himself included. He acquired his first property, a tract of nearly 500 acres five miles southwest of Charles Town, in December 1750. Over the next two years, he added an additional 1500 acres to his Shenandoah Valley holdings.

Washington’s professional surveying career came to an abrupt end in November of 1772 when he received a military commission from Virginia’s colonial governor, Robert Dinwiddie. Yet, for the next half century he would continue to draw upon his surveying skills — as a military officer in laying out grounds for fortifications and encampments; as the proprietor of Mount Vernon, which he inherited
in 1754, in settling repeated boundary disputes; and above all, in pursuing the lust for western lands that had gripped him during his initial trek across the Blue Ridge. His holdings would eventually swell to more than 52,000 acres, including immense tracts in present day West Virginia along the Ohio and Kanawha rivers, as well as parcels of several thousand acres each in Kentucky, southwestern Pennsylvania and New York. The management of these lands, which possibly brought him more grief than profit, continued to occupy much of his time for the remainder of his life.

Washington is known to have owned a wide variety of surveying instruments and related equipment during his lifetime. His first surveyor’s compass was likely among the “surveyor’s instruments” valued at “1 pound, 10 shillings” listed in the inventory of his father, Augustine Washington’s estate. Washington’s letters and diaries contain numerous references to other instruments he acquired later in life. In a letter of April 20, 1755, he mentioned that among the casualties of his ill-fated Fort Necessity military campaign was “a very valuable and uncommon Circumferenter calculated not only for Superficial Measure but for taking of Altitudes.”

Correspondence also exists between Washington and the famous American scientist and instrument maker David Rittenhouse (1732-1796). Rittenhouse made at least two surveyor’s compasses for
Built in 1774-1776 at a cost of several thousand dollars, Washington's Mill, near present-day Perryopolis, PA was perhaps the finest mill west of the Alleghenies. Washington found it to be in a state of shocking disrepair during his 1784 visit.

Washington which survive to this day in the collections of the Smithsonian Institution and New York State Library.

The Samuel Jackson – George Washington Compass now preserved in the West Virginia Collection is thought to be yet another surviving Washington circumferenter. A native of Chester County, Pennsylvania, Samuel Jackson settled at Redstone, Fayette County, on the present site of Brownsville, Pennsylvania about 1780. In the ensuing decades he became one of the region's most prominent and diversified entrepreneurs. Family lore holds that Washington met the budding businessman while visiting Fayette County shortly after the Revolutionary War and presented him with the compass for his use in surveying local lands.

Washington's writings confirm that he did, in fact, visit Fayette County in September, 1784, and spent the better part of a week there. The purpose of his journey was to ascertain the state of his holdings in the area which included one of the region's finest mills and numerous tenant farms. He was disappointed upon arrival to find that his mill had fallen into a state of serious disrepair during the war years and that his farms had fared little better. To make matters worse, several of his properties had been occupied by squatters who now challenged his ownership.

Washington's movements through both Fayette and Washington counties are well documented in his diary. While he does not appear to have visited Redstone, Samuel Jackson's home, he did spend several days at "Simpson's" near present day Perryopolis just ten miles away. The most significant event that occurred during this entire trip was a well advertised auction that Washington organized at Simpson's on September 15 to sell long-term leases to his various properties in the region. "Many people gathered" for the event, Washington noted in his diary. Unfortunately, most had come "out of curiosity than from other motives."

Jackson, one of the county's most ambitious entrepreneurs, likely attended this sale, quite possibly in the company of his Redstone neighbor, Major Thomas Freeman. Two days after the sale occurred, Washington engaged the latter gentleman to serve as superintendent of all his western lands. Jackson may have assisted Freeman in the fulfillment of his duties to a greater or lesser extent. In fact, in a letter to Washington written by Freeman at Redstone the following summer, Freeman mentions that he is sending his employer a communication which “will come immediately into your Hands by the Bearer Mr. Jackson,” suggesting that Jackson may have visited Washington at Mount Vernon that summer. Three months later, Washington himself mentions “Mr. Jackson...an Inhabitant of Redstone" in a letter written to one Levi Hollingsworth regarding a scheme to use Potomac River bottom mud to fertilize Mount Vernon's agricultural fields. President Washington mentions Jackson again by name in a letter of July 28, 1794 to Israel Shreve regarding the asking price of his Fayette County lands.

After concluding his business in Fayette and Washington counties in September 1784, Washington intended to proceed to his lands on the Kanawha and Ohio rivers. He was forced to abandon this plan by the receipt of numerous reports of
hostilities on the western Virginia frontier between settlers and Indians. Concluding that such an excursion was not only dangerous but would inflame the situation, he decided instead to conduct an investigation of potential avenues of transportation between eastern Virginia and the frontier that might be developed in order to promote economic intercourse between the two regions.

Washington’s investigation began with an assessment of the navigational possibilities of the Cheat River. Upon initial inquiry, the general was advised that the river, “though rapid and bad,” was navigable upstream for a distance of 25 miles to a point known as Dunkers Bottom. From there, he was told, the North Branch of the Potomac was just thirty miles away and that a road between the two had already been marked if not opened.

Determined to personally investigate these reports, shortly before noon on September 22, 1784, Washington departed Beasontown (now Uniontown) for the mouth of the Cheat River. Arriving at about 5 pm, Washington was informed that the office of Captain Samuel Hanway, Monongalia County surveyor, was just a few miles up the river.

According to Washington’s journal, Hanway’s office was located “at the house of one [Col. John] Pierpont.”

_Pursuing my inquiries respecting the navigation of the western Waters, Capt. Hanway proposed, if I would stay all night, to send to Monongahela Ct. House at Morgan town, for Col. Zachy. Morgan and others; who would have it in their power to give the best acct. that were to be obtained._

"Map of Washington’s Western Tour, September, 1784," from Archer B. Hulbert’s Washington and the West, 1905.
The General accepted Hanway’s invitation and on the following day received detailed reports from a variety of citizens, not only about navigation on the Cheat but about watercourses and roads throughout western Virginia.

Washington was “somewhat discouraged from the acct. given of the passage of the Cheat River through the Laurel hill.” He therefore “resolved to try the other Rout” proposed to him for returning eastward, “the New road to Sandy Creek.” Departing Pierpont’s on September 25 just before sunrise, Washington arrived “at a ferry kept by one Ice” after traveling a distance of about three miles. The traveler questioned the ferryman at length about navigation on the Cheat before proceeding eastward towards Sandy Creek. Crossing the creek near present day Bruceton Mills, Washington veered southeastward in the direction of Oakland, Maryland. He passed that night in the “Yohiogany glades...with no other shelter or cover than my cloak & and was unlucky enough to have a heavy shower of Rain.”

Traversing the Briery Mountains, Washington continued on a southeasterly course for the next several days passing through Petersburg, and on to Staunton, making careful inquiries about river and road navigation all the while. He arrived home at Mount Vernon before sundown on October 4th, having traveled, according to his calculations, 680 miles in 34 days.

In the years that followed, Washington would continue to be disappointed in the productivity of his Pennsylvania lands, due mostly to poor management and the difficulty of finding reliable tenants. Samuel Jackson’s fortunes in the region, on the other hand, soared. He built and operated a wide assortment of milling enterprises including saw mills, a grist mill, and a linseed oil mill. He invested in a woolen mill and in a glass factory. During the 1790s, with a fellow Quaker partner, Joseph Sharpless, he built the first paper mill west the Alleghenies, an achievement hailed in June 1797 by the Pittsburg Post which promptly lowered its rates due to the local availability of newsprint.

Jackson was also engaged in building boats with which to transport both goods and people up and down the Monongahela and beyond. In addition to modest crafts like flatboats and keelboats, he was keenly interested in the construction of sophisticated vessels. The American inventor Samuel Slater’s memoirs include references to discussing steam paddlewheel technology with “Samuel Jackson of Redstone” during the mid 1780s. He was also interested in traditional wind powered sailing ships. During the early twentieth century
there was much debate regarding who built the first ocean-going vessel on western waters. For many years, the honor was divided between advocates of ships built at Marietta, Ohio and Elizabeth, Pennsylvania, respectively, both of which set sail during the late spring of 1801. The claims of both were trumped by the discovery of a notice in a Pittsburgh newspaper published earlier that same year: “Now riding at anchor in the Monongahela, opposite this place, the schooner Redstone, 45 feet in keel, built at Chester’s ship yard, near Redstone, by Samuel Jackson & Co. with masts, spars, rigging, &c., of the growth and manufacture of this western country.”

Around the turn of the nineteenth century, Jackson expanded his growing empire to include interests in the region’s budding iron industry, first in Fayette County, and then in neighboring Monongalia County. In the words of Monongalia County historian Earl L. Core, Samuel Jackson was to become “the best known name in the story of the development of the iron industry in this region.”

About 1800, Jackson built a log dam and mill below Ice’s Ferry in a location now submerged beneath Cheat Lake. According to Core, the ruins of the mill were clearly visible from the present Ice’s Ferry bridge until the completion of the Cheat Lake dam in 1926. By 1804, Jackson was selling bar iron for cash or exchange in all manner of goods. Two years later, he bought nearly three hundred acres adjacent to his mill and built a factory that produced iron goods ranging from cut nails to stoves. He continued to produce bar iron that was shipped as far north as Lake Erie where it helped build Oliver Hazard Perry’s fleet, and as far south as New Orleans where it provided cannon balls and shot for Andrew Jackson’s army.

The Jackson Iron Works eventually developed into an elaborate complex of businesses and structures, with a tangled web of ownership, including interests in assorted Cheat area iron furnaces. When Jackson died in 1818, he left his iron business to his son Josiah who expanded operations. In addition to constructing the Woodville Furnace in Darnell Hollow three miles north of Ice’s Ferry, it was Josiah who likely began construction of the Henry Clay Furnace before selling his entire business during the mid 1830s. Known alternately as the Jackson, Cheat, or Laurel

*Detail of the Jackson – Washington twenty-four inch Gunter Rule (above), and six-inch rule (below) bearing the inscription “GW 1781” (on right edge).*
ironworks, it is said that the enterprise employed more than 1,000 workers during Samuel Jackson’s day and perhaps twice that number several decades later.

In addition to the Jackson Iron Works, Josiah Jackson inherited his father’s surveying equipment and is thought to have had the skill to use it. Josiah in turn left it to his son, William Fleming Jackson who left it to his son, Oliver Fleming Jackson. Oliver passed it on to his nephew, Herbert McMillen, who spent several years working as a surveyor in Preston County as a young man during the early twentieth century.

The Jackson – Washington Compass now comes to the West Virginia Collection from Herbert McMillen’s daughter, Edith McMillen Wilson. Though Mrs. Wilson had elder siblings, her father entrusted this family heirloom to her because she was the only member of the family still residing in West Virginia. Now a resident of Florida, Mrs. Wilson has placed this treasured artifact in our care in honor of her father’s wishes that it remain here where it was once employed by the “Iron Master of Cheat.”

Selected Recent Accessions


Color copy of three-page Civil War letter dated 30 June 1861 authored by William Bowen Gallaher of Company E, Virginia 1st Cavalry, from a “camp near Hainesville, Berkeley County”. It touches on a number of subjects, most pertaining to the Berkeley County and Martinsburg, West Virginia area. Includes references to the aftermath of a battle at Williamsport, recruits from Augusta County and Washington College, among many other topics. Also includes one additional page with brief histories of William Gallaher and Charles Dalhouse.


Six letters authored by a CCC participant from Camp Bowers, Valley Head, West Virginia. Subjects include projects and recreation at the camp, and family matters.


Seven handbills and announcements for theatrical events in Clarksburg and Fairmont, West Virginia. Includes: 1) “Merely Mary Ann” (ca. 1904-1913; by Israel Zangwill); 2) “The Fighting Hope” (1908); 3) “The Trail of the Lonesome Pine” (ca. 1908-1909; by John Fox, Jr.); 4) “Excuse Me” (1911; by Rupert Hughes); 5) “Oh, My Dear!” (ca. 1918; 2 copies); 6) Giles Button, Comedian (undated); and 7) William Carr, Musician with Carr Trio (undated).


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Account ledger for store in Moorefield, Hardy County. Provenance is thought to be through the Gregory and Havenar families, possibly from the Havenar store. Transactions are entered chronologically, and include date, name of customer, goods purchased, and value in dollars and cents.


Historical material compiled by Rene Henry, including 1) two clippings and two related photographs regarding the history of South Charleston, West Virginia; 2) four photographs of Fred B. Secrest as a locomotive engineer (step grandfather to Rene Henry); and 3) eight copies of “train orders” for Fred B. Secrest, some on “Kanawha and Michigan Railway” letterhead. Also includes clipping authored by Rene Henry, regarding the 1950 West Virginia University football team that appeared in the South Charleston Free Press.


Papers of Mabel Welch Wims Hoggard documenting the career of a dedicated educator and a pioneer in breaking many racial barriers, including the first African-American staff writer for the Williamson News (Mingo County, West Virginia, ca. 1942), administrative staff member for the Williamson Housing Authority (ca.1942), and the first permanent African-American teacher in the state of Nevada (1945). The collection includes her personal and professional correspondence (ca.1926-1980), and records from her student years, including: a 1924 University of Chicago class schedule; articles from a progressive 1932 Chicago newspaper, *The Western Ideal*, regarding racism; and a 1939 Bluefield State Teachers College class syllabus. There is also a 1940 invitation from the Colored Republicans of West Virginia, a 1941 handbill regarding segregated housing in Williamson, two undated photographs (likely of Mabel Hoggard), a 1945 military base visitors pass, ephemera from the Mabel Hoggard Sixth Grade Center in Nevada, and a 1982 newspaper (*The Black Monitor*). The collection also contains biographical information such as newspaper articles, obituaries, a United States Congressional Tribute, a memorial service program, and family genealogy.


Papers of the Jackson Family of Monongalia and Preston counties, (West) Virginia, including business, financial, and legal documents. Included are business records of Josiah Jackson and Leonard Lamb recording transactions with Tassie and Church of Pittsburgh. A copy of a document dissolving their partnership is included. There is correspondence regarding the disposal by John Jackson (or executors) of property associated with St. John’s Furnace and Hampton Forge and subsequent legal proceedings, including summons to testify. The author of these documents is unknown; each bears the words “gave a copy to John Lyons” at the bottom. Other materials include: a promissory note to John Jackson (1814); a record of debts owed by Samuel Jackson, deceased, to be paid by his executors John and Samuel Jackson (1818); a copy of the will of Joseph Baily, of Dunkard, Greene County, Pennsylvania (1857) (the will was certified in Fayette County Pennsylvania, where James D. Jackson is shown to have lived, by evidence of the 1879 deed
in this collection, albeit twenty odd years later) (1857); a deed between grantors Daniel R. Jackson and his wife Rachel G. Jackson, William F. Jackson and his wife Elizabeth, James D. Jackson and his wife Lydia, and grantees [Grover?] C. Jackson and Bell Jackson concerning the disposal of their mother, Verlinda Jackson’s, property (1879); and pension records for Henry C. Jackson, son of Virlinda Jackson, who served in the 1st Regiment [West] Virginia Cavalry Volunteers.


Financial records of Milkint Brothers General Store in the town of Thomas located in Tucker County, West Virginia. Includes two account ledgers (1913-1914 and 1919-1951), and account journal for acquisition of inventory for the store (1912-1919). Also includes group portrait photograph entitled “Charles Milkint and Sons”.


Thaddeus Clark Noble (b. 1818) of Washington County, Pennsylvania, operated a general store in Claysville, Pennsylvania, from 1849 to the mid-1870s. Approximately 290 letters written in the late 1850s document the operations of Noble’s store in western Pennsylvania and his relationship with frequent customers and wholesale dealers. Business correspondence is chiefly from other grocers and merchants. Letters primarily concern goods purchased from Noble and sold to him (flour, salt, molasses, wool, hogs, barley, sugar, oats, wheat, lard, coffee, salt, clothing, hats, etc.); the prices of goods; account balances; freight charges; the shipping and packing of goods, and errors or problems with shipments. Regular correspondents include: Ohio River Salt Company; List, Morrison and Company; List and Howell; Baker and Hopkins; William Albright; Sam McFarland; A. Howell; O. D. Thompson; and A. Goldsmith. Most of Noble’s business correspondents were from Wheeling, West Virginia, and western Pennsylvania, but some were also from Philadelphia.


Order book of Battery E, 1st West Virginia Light Artillery, documenting orders received by the commander of the unit, Captain Alexander C. Moore, in the period 10/1863 to 3/1865. There are 49 leaves of material regarding: deportment of soldiers in town, disarming of citizens, leaves of absence and furloughs, logistics, medical duty assignments (“small pox”), missing in action report methodology, organization of units, protection of private property, desertion reports, treatment of private citizens, and troop movements, among other topics. This unit served in the Shenandoah Valley campaigns of 1864, among other assignments. Places identified in Maryland include: Baltimore, Cumberland, and Monocacy. Places identified in West Virginia include: Maryland Heights (Fort Duncan), New Creek, Romney, Springfield, and
Wheeling. Commanders issuing orders include: Major General Franz Sigel, Major General Philip Sheridan (2 items), Colonel Jacob M. Campbell, Colonel James A. Mulligan, and Major G.F. Merriam (commanding at Fort Duncan, Maryland Heights).


Papers of James Williams of northern West Virginia, including documentation of his service to the Union during the Civil War (West Virginia 17th Volunteer Infantry, Company E), and other personal papers. Civil War related records include discharge (1865), letter from WV Adjutant General awarding medal to Williams (1867), and pension records (ca. 1880-1905). There is also a blank enlistment form for Union volunteers. There is personal correspondence (1888-1907). Family business papers include lease agreements with Pittsburgh Coal, Coke and Gas Company (1897) and South Penn Oil Company (1902), tax records, and other material (ca. 1870-1905). There is a receipt with instructions on how to die wool (undated), and printed ephemera (including voter pamphlets for the 1884 and 1892 U.S. Presidential elections).