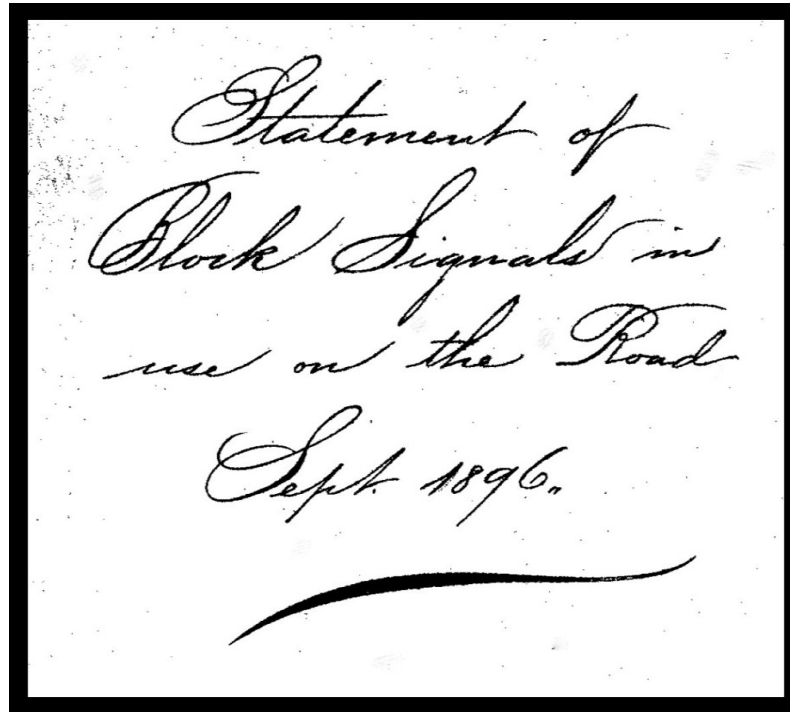


"Statement of Block Signals In Use on the Road"
September 1896
Norfolk & Western Railway



**A Rendition in Microsoft Excel
of Information Contained in an Old Document**

**Created by Abram D. Burnett
February, 2012 A.D.**

INTRODUCTION

In 1988, William M. Harman, a 1940-hire N&W Radford Division Telegrapher, sent me a document produced by the N&W Ry. in 1896 and titled "Statement of Block Signals in Use on the Road, September 1896." At the time he sent me this item, I had known Bill for more than thirty years.

The document dates from a decade before the N&W's first limited use of Automatic Block Signals. The "Block Signals" it references are those used at Telegraph Offices which blocked trains under Manual Block Rules, operated by hand. It also references signals which were used exclusively as Train Order Signals, not being used as Block Signals.

For each station listed, there are ten columns of information, delineating whether the signal was an absolute block signal or a permissive block signal; whether it had one or two semaphore blades; whether it was pulled by pipe, wire or rope; and whether it met "Present Standards" or was "Old Form Prior to 1890" (the meaning of which category I do not understand.)

The document from which I worked is a carbon copy of a typescript, made on onion skin paper with green (not black) carbon paper, and consists of five sheets. It was typed vertically on legal size paper (8.5" x 11",) was mounted on a hard paper backing sheet and attached thereto with three brass brads at the top, and was folded twice, to facilitate easy storage. As folded, the document measures 8.5" x 3.75". I was obliged to use a magnifying glass to read most of the document.

The document is badly faded, is almost illegible, and is in deteriorated condition. It is so badly faded that it could not be satisfactorily reproduced by either scanning or Photoshopped digital images. Therefore, realizing the historical significance of the document, I undertook to set up in the Microsoft Excel program all the data it contains, using the same columnar arrangement as the original.

In transcribing the document into Excel, I have in all cases followed the orthography, capitalization and abbreviations of the original, even where some abbreviations differ at different places in the original.

Now that I have finished my work with the document, I am donating it to the N&W Railway Historical Society Archives in Roanoke, Va, where it will be available for future generations.

I have also added at the end of this PDF file a reproduction of the four page, pencil-written letter of June 30, 1988, which Bill Harman included when he sent me the document, a smaller note he included in the envelope as a post script, and a copy of a Xerox reproduction he included showing two pages from an old Time Table (no date available.)

Bill's father and grandfather had both been telegraphers on the Radford Division. If I recall the story correctly, Bill's grandfather had known and been favorably impressed with a Philadelphia contractor named Gaynor, who had been employed by the N&W in the 1890s to construct the "Charlton Grade," a new line extending eastward from Vicker to raise the alignment up out of the Crab Creek bottoms. The Grandfather had been so favorably impressed with the contractor that he named his own son after him, Gaynor. (Gaynor would have been Bill's father.) Bill several times asked me if information could be developed on Gaynor, the contractor from Philadelphia, but I could never find a trace. Also to be mentioned is the fact that the ICC Railroad Accident Investigation Reports at least twice reference an operator (towerman) Harman who had been involved in collisions at Belspring and Walton. I do not know if the person(s) mentioned was/were related to Bill.

I would be remiss if I did not, in preserving and disseminating this information for posterity, mention that Bill Harman was a Southern Gentleman of the Old School, a kind and charitable man. I think I first met Bill when he was working at "DO" Telegraph Office at 16th Street, Roanoke, in the mid-1950s. But I got to know him in 1957, when I was a young man riding passenger trains between Roanoke and Christiansburg, where he was (I think) the relief Agent.

Two weekends before Bill became a "Silent Key" in May of 2000, I was privileged to spend about twenty minutes working a Morse telegraph wire with him. He was at a Morse Day gathering in Roanoke, and I was seated in "SW," my own basement telegraph office in Pennsylvania. We were working over the national telegraph wire which was at that time set up annually on the Saturday nearest Samuel F.B. Morse's birthday in April.

You were a good man, Bill, and always a good influence on the younger generation. Blessed Repose and Eternal Memory.

Abram Burnett
New Cumberland, Pennsylvania
February 18, 2013

| Stations & Offices. | Absolute Block | Permissive Block. | One Blade | Two Blades | Present Standard. | Pipe Connected | Wire Connected | Old Form Prior to 1890 | Cord Connected. | Remarks: |
|---------------------------|----------------|-------------------|-----------|------------|-------------------|----------------|----------------|------------------------|-----------------|--|
| <u>Shen. Div. Con'td:</u> | | | | | | | | | | |
| Ashby | 1 | | 1 | | 1 | 1 | | | | Not in use. |
| White Post | 1 | | 1 | | 1 | 1 | | | | |
| Boyce | 1 | | 1 | | 1 | 1 | | | | |
| Berryville | 1 | | 1 | | 1 | 1 | | 1 | 1 | |
| Rippon | 1 | | 1 | | 1 | 1 | | | | |
| Charles Town | 1 | | 1 | | 1 | 1 | | 1 | 1 | Note: On W-2. |
| Shepherdstown | 1 | | 1 | | 1 | 1 | | 1 | 1 | Div. in use. |
| Antietam | 1 | | 1 | | 1 | 1 | | 1 | 1 | Red flag & lantern are used only for train orders and not for blockading. |
| St. James | 1 | | 1 | | 1 | 1 | | 1 | 1 | |
| <u>PULASKI DIV'N:</u> | | | | | | | | | | |
| Dublin | 1 | | 1 | | | | | 1 | 1 | |
| N.C. June | 1 | | 1 | | | | | 1 | 1 | |
| Pulaski Office | 1 | | 1 | | | | | 1 | 1 | |
| Pulaski Station | 1 | | 1 | | 1 | 1 | | 1 | 1 | For orders only. |
| Max Meadows | 1 | | 1 | | | | | 1 | 1 | |
| Wytheville | 1 | | 1 | | | | | 1 | 1 | Note: On Pulaski Div. red flag & lantern are used to indicate presence of Train Orders - |
| Crockett | 1 | | 1 | | | | | 1 | 1 | |
| Rural Retreat | 1 | | 1 | | | | | 1 | 1 | |
| Atkins | 1 | | 1 | | | | | 1 | 1 | |
| Marion | 1 | | 1 | | | | | 1 | 1 | |
| 7 Mile Ford | 1 | | 1 | | | | | 1 | 1 | |
| Chilhowie | 1 | | 1 | | | | | 1 | 1 | |
| Glade Spring | 1 | | 1 | | | | | 1 | 1 | |
| Meadow View | 1 | | 1 | | | | | 1 | 1 | |
| Abingdon | 1 | | 1 | | | | | 1 | 1 | |
| Wyndale | 1 | | 1 | | | | | 1 | 1 | |
| Wallace | 1 | | 1 | | | | | 1 | 1 | |

Scan of a portion of Page 4 of the original document, after heavy Photoshopping to improve color and contrast. Page 1 was so badly faded that it could not be satisfactorily reproduced either by scanning or by Photoshopped digital imaging.

BLOCK SIGNALS IN USE ON THE ROAD, SEPTEMBER 1896.
ISSUED BY ENG. MAINT of WAY, SEPT. 21, 1896
(NORFOLK & WESTERN RAILWAY)

| Stations & Offices | Absolute Block | Permissive Block | One Blade | Two Blades | Present Standard | Pipe Connected | Wire Connected | Old Form Prior to 1890 | Cord Connected | Remarks |
|--------------------|----------------|------------------|-----------|------------|------------------|----------------|----------------|---------------------------|----------------|--|
| NORFOLK DIV'N: | | | | | | | | | | <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>NOTE: On Norfolk Div'n. red flag and lantern are used to denote presence of Train Orders.</p> </div> |
| N. & S. Junction | 1 | | 1 | | | | | 1 | 1 | |
| Tucker | 1 | | 1 | | | | | 1 | 1 | |
| Suffolk | 1 | | 1 | | | | | 1 | 1 | |
| Windsor | 1 | | 1 | | | | | 1 | 1 | |
| 39 Mile Office | 1 | | 1 | | | | | 1 | 1 | |
| Ivor | 1 | | 1 | | | | | 1 | 1 | |
| Wakefield | 1 | | 1 | | | | | 1 | 1 | |
| Waverly | | 1 | | 1 | 1 | 1 | | | | |
| Disputanta | | 1 | | 1 | 1 | 1 | | | | |
| Church Road | | 1 | | 1 | 1 | 1 | | | | |
| Ford | | 1 | | 1 | 1 | 1 | | | | |
| Wilson | | 1 | | 1 | 1 | 1 | | | | |
| Wellville | | 1 | | 1 | 1 | 1 | | | | |
| Blackstone | | 1 | | 1 | 1 | 1 | | | | |
| Nottoway | | 1 | | 1 | 1 | 1 | | | | |

| Stations & Offices | Absolute Block | Permissive Block | One Blade | Two Blades | Present Standard | Pipe Connected | Wire Connected | Old Form Prior to 1890 | Cord Connected | Remarks |
|---------------------------|----------------|------------------|-----------|------------|------------------|----------------|----------------|------------------------|----------------|---|
| LYNCHBURG DIV'N: | | | | | | | | | | <div>NOTE: With expeptions named below, red flag and lantern are used to indicate presence of Train Orders on Lbg. Div.</div> |
| Burkeville | 1 | | | 1 | | | | 1 | 1 | |
| Rice | 1 | | | 1 | | | | 1 | 1 | |
| Farmville | 1 | | | 1 | | | | 1 | 1 | |
| Prospect | 1 | | | 1 | | | | 1 | 1 | |
| Pamplin | 1 | | | 1 | | | | 1 | 1 | |
| Evergreen | 1 | | | 1 | | | | 1 | 1 | |
| Appomattox | 1 | | | 1 | | | | 1 | 1 | |
| Spout Spring | 1 | | | 1 | | | | 1 | 1 | |
| Concord | 1 | | | 1 | | | | 1 | 1 | |
| James River Siding | | 1 | | 1 | 1 | | | | | |
| Lynchburg Tower | 1 | | 1 | | | | | 1 | 1 | |
| Durham Junction | 1 | | | 1 | 1 | 1 | | | | |
| Bellevue Office | | 1 | | 1 | 1 | 1 | | | | |
| Lowry | | 1 | | 1 | 1 | 1 | | | | |
| Bedford | | 1 | | 1 | 1 | 1 | | | | Office in Frt. Station |
| Thaxton | | 1 | | 1 | 1 | 1 | | | | |
| Montvale | | 1 | | 1 | 1 | 1 | | | | A third arm for Train orders attached. |
| Blue Ridge | | 1 | | 1 | 1 | 1 | | | | |
| Bonsack | | 1 | | 1 | 1 | 1 | | | | A third arm for Train orders attached. |
| E. End D.T. Roanoke Tower | 1 | | | 1 | 1 | 1 | | | | |
| West Roanoke Tower | | 1 | | 1 | 1 | 1 | | | | |

| Stations & Offices | Absolute Block | Permissive Block | One Blade | Two Blades | Present Standard | Pipe Connected | Wire Connected | Old Form Prior to 1890 | Cord Connected | Remarks |
|----------------------|----------------|------------------|-----------|------------|------------------|----------------|----------------|---------------------------|----------------|--|
| RADFORD DIV'N: | | | | | | | | | | <div>NOTE: On Radford Div. red flag & lantern are used to indicate the presence of Train orders.</div> |
| Salem Tower | | 1 | | 1 | 1 | 1 | | | | |
| Deyerle Tower | | 1 | | 1 | 1 | 1 | | | | |
| Elliston | | 1 | | 1 | 1 | 1 | | | | |
| Shawsville Station | | 1 | | 1 | 1 | 1 | | | | |
| Montgomery Office | | 1 | | 1 | 1 | 1 | | | | |
| Houchins Office | | 1 | | 1 | 1 | 1 | | | | |
| Christiansburg Tower | | 1 | | 1 | 1 | 1 | | | | |
| Vicker Tower | | 1 | | 1 | 1 | 1 | | | | |
| E. Radford | | 1 | | 1 | 1 | | | | | |
| Radford Tower | | 1 | | 1 | 1 | 1 | | | | |
| Schooler Office | | 1 | | 1 | 1 | 1 | | | | |
| Belspring | | 1 | | 1 | 1 | 1 | | | | |
| | | | | | | | | | | |

End Page 1 of Original Typescript

| Stations & Offices | Absolute Block | Permissive Block | One Blade | Two Blades | Present Standard | Pipe Connected | Wire Connected | Old Form Prior to 1890 | Cord Connected | Remarks |
|----------------------|----------------|------------------|-----------|------------|------------------|----------------|----------------|------------------------|----------------|--|
| RADFORD DIV. Cont'd. | | | | | | | | | | <p>For Rad. Div. Trains Interlocked</p> <div>NOTE: On Poca. Div. red flag and lantern are used to denote presence of Train Orders.</div> |
| Dry Branch Office | | 1 | | 1 | 1 | 1 | | | | |
| Eggleston | | 1 | | 1 | 1 | 1 | | | | |
| Pembroke | | 1 | | 1 | 1 | 1 | | | | |
| Ripplemead | | 1 | | 1 | 1 | 1 | | | | |
| Curve Office | | 1 | | 1 | 1 | 1 | | | | |
| Shumate Office | | 1 | | 1 | 1 | 1 | | | | |
| Lurich | | 1 | | 1 | 1 | 1 | | | | |
| Wills Office | | 1 | | 1 | 1 | 1 | | | | |
| Oakvale Office | | 1 | | 1 | 1 | 1 | | | | |
| Hardy Office | | 1 | | 1 | 1 | 1 | | | | |
| E. River Office | | 1 | | 1 | 1 | 1 | | | | |
| Ada | | 1 | | 1 | 1 | 1 | | | | |
| POCAHONTAS DIV'N: | | | | | | | | | | |
| Bluefield E. End | | 1 | | 1 | 1 | 1 | | | | |
| Bluefield Tower | | 1 | | 1 | 1 | 1 | | | | |
| Graham Tower | | 1 | | 1 | 1 | 1 | | | | |
| F. Top Yd. Tower | | 1 | | 1 | 1 | 1 | | | | |
| Bluestone Jct. | | 1 | | 1 | 1 | 1 | | | | |
| Cooper | | | | | | | | | | |
| E. End Tunnel | | 1 | | 1 | 1 | 1 | | | | |
| Coaldale | | 1 | | 1 | 1 | 1 | | | | |
| Switch-back | | 1 | | 1 | 1 | 1 | | | | |

| Stations & Offices | Absolute Block | Permissive Block | One Blade | Two Blades | Present Standard | Pipe Connected | Wire Connected | Old Form Prior to 1890 | Cord Connected | Remarks |
|----------------------|----------------|------------------|-----------|------------|------------------|----------------|----------------|------------------------|----------------|---|
| SCIOTO VALLEY DIV'N: | | | | | | | | | | <div>Office in Pass. Sta.</div> <div>Office in Pass. Sta.</div> <div>NOTE: On Scioto Div. red flag and lantern are used to denote presence of Tr. Orders.</div> <div>Office in Frt. Sta.</div> <div>Office in Frt. Sta.</div> |
| N. Kenova | 1 | | 1 | 1 | | | 1 | | | |
| Coal Grove | 1 | | 1 | 1 | | | 1 | | | |
| Ironton | 1 | | 1 | 1 | | | 1 | | | |
| Hanging Rock | 1 | | 1 | 1 | | | 1 | | | |
| Haverhill | 1 | | 1 | 1 | | | 1 | | | |
| Franklin Furnace | 1 | | 1 | 1 | | | 1 | | | |
| Wheelersburg | 1 | | 1 | 1 | | | 1 | | | |
| Sciotoville | 1 | | 1 | 1 | | | 1 | | | |
| Portsmouth | 1 | | 1 | 1 | | | 1 | | | |
| Lucasville | 1 | | 1 | 1 | | | 1 | | | |
| Clifford | 1 | | 1 | 1 | | | 1 | | | |
| Wakefield | 1 | | 1 | 1 | | | 1 | | | |
| Piketon | 1 | | 1 | 1 | | | 1 | | | |
| Waverly | 1 | | 1 | 1 | | | 1 | | | |
| Highby | 1 | | 1 | 1 | | | 1 | | | |
| Chillicothe | 1 | | 1 | 1 | | | 1 | | | |
| Kingston | 1 | | 1 | 1 | | | 1 | | | |
| Circleville | 1 | | 1 | 1 | | | 1 | | | |
| Asheville | 1 | | 1 | 1 | | | 1 | | | |
| Valley Crossing | 1 | | 1 | 1 | | | 1 | | | |

| Stations & Offices | Absolute Block | Permissive Block | One Blade | Two Blades | Present Standard | Pipe Connected | Wire Connected | Old Form Prior to 1890 | Cord Connected | Remarks |
|-----------------------------------|----------------|------------------|-----------|------------|------------------|----------------|----------------|------------------------|----------------|------------------|
| Vaughan's Summit | 1 | | 1 | | 1 | 1 | | | | Not in use. |
| Rileyville | 1 | | 1 | | 1 | 1 | | | | |
| Manor | 1 | | 1 | | 1 | 1 | | | | |
| Front Royal | 1 | | 1 | | 1 | 1 | | | | |
| Riverton | 1 | | 1 | | 1 | 1 | | | | |
| End Page 3 of Original Typescript | | | | | | | | | | Not in use. |
| Ashby | 1 | | 1 | | 1 | 1 | | | | |
| White Post | 1 | | 1 | | 1 | 1 | | | | |
| Boyce | 1 | | 1 | | 1 | 1 | | | | |
| Berryville | 1 | | 1 | | 1 | 1 | | | | |
| Rippon | 1 | | 1 | | 1 | 1 | | | | |
| Charles Town | 1 | | 1 | | 1 | 1 | | | | |
| Shephardstown | 1 | | 1 | | 1 | 1 | | | | |
| Antietam | 1 | | 1 | | 1 | 1 | | | | |
| St James | 1 | | 1 | | 1 | 1 | | | | |
| PULASKI DIV'N: | | | | | | | | | | For orders only. |
| Dublin | 1 | | 1 | | | | | 1 | 1 | |
| N.C. Junc. | 1 | | 1 | | | | | 1 | 1 | |
| Pulaski Office | 1 | | 1 | | | | | 1 | 1 | |
| Pulaski Station | 1 | | 1 | | 1 | 1 | | | | |
| Max Meadows | 1 | | 1 | | | | | 1 | 1 | |
| WythevilleCrockett | 1 | | 1 | | | | | 1 | 1 | |
| Rural Retreat | 1 | | 1 | | | | | 1 | 1 | |
| Atkins | 1 | | 1 | | | | | 1 | 1 | |
| Marion | 1 | | 1 | | | | | 1 | 1 | |
| 7 Mile Ford | 1 | | 1 | | | | | 1 | 1 | |
| Chilhowie | 1 | | 1 | | | | | 1 | 1 | |
| Glade Spring | 1 | | 1 | | | | | 1 | 1 | |
| Meadow View | 1 | | 1 | | | | | 1 | 1 | |

NOTE: On Pulaski Div. red flag & lantern are used to indicate the presence of Train Orders.

| Stations & Offices | Absolute Block | Permissive Block | One Blade | Two Blades | Present Standard | Pipe Connected | Wire Connected | Old Form Prior to 1890 | Cord Connected | Remarks |
|--------------------|----------------|------------------|-----------|------------|------------------|----------------|----------------|------------------------|----------------|--|
| Abingdon | 1 | | 1 | | | | | 1 | 1 | <div>NOTE: On N.C. Div. red glag & lantern are used to indicate the presence of Train Orders.</div> <div>Not in use.</div> <div>NOTE: On C.V. Div. red glag & lantern are used to indicate the presence of Train Orders.</div> |
| Wyndale | 1 | | 1 | | | | | 1 | 1 | |
| Wallace | 1 | | 1 | | | | | 1 | 1 | |
| N.C. DIVISION: | | | | | | | | | | |
| Draper | 1 | | 1 | | | | | 1 | 1 | |
| Allisonia | 1 | | 1 | | | | | 1 | 1 | |
| Barren Springs | 1 | | 1 | | | | | 1 | 1 | |
| Bertha | 1 | | 1 | | | | | 1 | 1 | |
| Foster Falls | 1 | | 1 | | | | | 1 | 1 | |
| Austinville | 1 | | 1 | | | | | 1 | 1 | |
| Ivanhoe | 1 | | 1 | | | | | 1 | 1 | |
| Grayson | 1 | | 1 | | | | | 1 | 1 | |
| Kayoulah | 1 | | 1 | | | | | 1 | 1 | |
| C. V. DIVISION | | | | | | | | | | |
| Tip Top | 1 | | 1 | | | | | 1 | 1 | |
| Tazwell | 1 | | 1 | | | | | 1 | 1 | |
| Pounding Mill | 1 | | 1 | | | | | 1 | 1 | |
| Cedar Bluff | 1 | | 1 | | | | | 1 | 1 | |
| Richlands | 1 | | 1 | | | | | 1 | 1 | |
| Swords Creek | 1 | | 1 | | | | | 1 | 1 | |
| Honaker | 1 | | 1 | | | | | 1 | 1 | |

| Stations & Offices | Absolute Block | Permissive Block | One Blade | Two Blades | Present Standard | Pipe Connected | Wire Connected | Old Form Prior to 1890 | Cord Connected | Remarks |
|-----------------------------------|----------------|------------------|-----------|------------|------------------|----------------|----------------|------------------------|----------------|--|
| Finney | 1 | | 1 | | | | | 1 | 1 | <div>NOTE: On W-S. Div. these signals are used only for train orders and not for blocking.</div> |
| Cleveland | 1 | | 1 | | | | | 1 | 1 | |
| Carterton | 1 | | 1 | | | | | 1 | 1 | |
| Castlewood | 1 | | 1 | | | | | 1 | 1 | |
| St. Paul | 1 | | 1 | | | | | 1 | 1 | |
| Virginia City | 1 | | 1 | | | | | 1 | 1 | |
| Coeburn | 1 | | 1 | | | | | 1 | 1 | |
| Tacoma | 1 | | 1 | | | | | 1 | 1 | |
| End Page 4 of Original Typescript | | | | | | | | | | |
| WINSTON-SALEM DIV: | | | | | | | | | | |
| Starkey | 1 | | 1 | | | | | 1 | 1 | |
| Boone's Mill | 1 | | 1 | | | | | 1 | 1 | |
| Rocky Mount | 1 | | 1 | | | | | 1 | 1 | |
| Ferrum | 1 | | 1 | | | | | 1 | 1 | |
| Henry | 1 | | 1 | | | | | 1 | 1 | |
| Bassett | 1 | | 1 | | | | | 1 | 1 | |
| Martinsville | 1 | | 1 | | | | | 1 | 1 | |
| Ridgeway | 1 | | 1 | | | | | 1 | 1 | |
| Stoneville | 1 | | 1 | | | | | 1 | 1 | |
| Madison | 1 | | 1 | | | | | 1 | 1 | |
| Pine Hall | 1 | | 1 | | | | | 1 | 1 | |
| Walnut Cove | 1 | | 1 | | | | | 1 | 1 | |
| Walkertown | 1 | | 1 | | | | | 1 | 1 | |

Office of Eng. Maint. of Way,
Roanoke, Va., Sept. 21st, 1896

1 RG W 115P 30th 88

Dear ad.

Rec'd your letter and certainly did enjoy the contents. I bought some old Prints of Nat locations at a yard Sale in Radford about a month ago, Elk Horn Tunnel "Su" Town Bluestone Jct Old "G" Engine waiting Wash Radford to go across the bridge over Schesha Hill To Del Branch To Bluefield.

Don't have a call for Kettle Hollow Cut, my dad never mentioned a telegraph office being there unless there was one there when the South tracking was taking place.

Sorry to hear of the flight of the train dispatcher, N is going to do the same thing in Leesport. Computerized Disps.

I would like to have some photos of the inside of one or both these towers Armstrong and the one on Naskwa it is like the one at Elliston Va. The Electric at Anacosta Jct is like the old tower at Arthon + Bx electric, has motors to run one way to throw a switch, reverse Polarity on the motor and it would close the Switch.

I have a 1890 New Rule Book effective March 1st with an agent's office E. Radford Stamp Jul 11, 1894. Page 34 "Rules for Block Signals" Page 87 Rules for Telegraph operators, page 89 rule 440. When two passenger Trains are running in the same direction, they must display a red signal immediately after the first Train passes, and at the expiration of fifteen (15) mins display a White Signal to the following train unless some form of Block signal is used. Also have TT 1891, 1895, 1896 all have same in their special instructions. Q How long is a To go? Until its fulfilled, superseded or annulled. Q What governs the operation of the Railroad A. the Rule Book. Q What supersedes the rule Book A. Special instructions the time table. Q What supersedes both Rule Book + T.T. A AT train order.

I would say that the N&W ^{or successor} operated by name, each Engine had a Name, "Roanoke" but "Virginia" at Chgo Va this operator was called time table. Standard time was adopted on RR about 1850-1855-1860 The engineers that could not read or write had to get one known Eng'r Henry Spaulding lived on a farming farm as my Grandaddy's Harman

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Train. This was also the same time or close to it more trains were added and the block systems were adapted. Parts of the large density line was double tracked "Roke To Elliston", "Sig Branch To Rippland", "Pearisburg To Lurich" etc.

Mr E. H. Smith told me when I was on the R+P dept for Red Air that the Bx Tower at Chava was the most important place on the Radford Air, that if you had trouble on either side you had the entire RR tied up. And boy did he know what he was talking about.

Since all the sidings have been cut out a freight train stalled a few car lengths west of Shawsville Station, slack ran up hill and broke the train in two pulling the D+ out of the West end of a hopper car west of the highway crossing blocking the School bus to pick up the kids going to school, the car had to be chained up and taken to Chg yard and set off, tying the WPB up for two hours and a half, the people in Shawsville got a warrant for the RR Co and served it on the Depot agent at Chava (Me) we went to Court as Va law says you can't block a highway crossing longer than 15 mins, the Judges father used to be second track operator at Whitehouse and understood the situation and let the W go with a promise to do better HA'HA!

I worked at Galax Va, in 1942, had 1 Passenger Train, 1 thru 1st Pk To "Gg" 1 1st Train "TN" To "VA" (Sranhoe), 1 2nd weekly freight Pass Train to Barron Springs (Betty Baker)

The freight train to Galax was first out of Pulaski & arrived at Galax before the Pass Train that Brad Conn with No 14 & No 9 at Pulaski left Pulaski, however the Pass train ran on absolute block. When the Pass Train left Galax it ran up Fries Branch, and the freight train would be ready to leave, the opr at Galax would ask the Disps for a Permissive Block Clearance Card, he ^{the Disps} would give the opr a card by letter "B" like "Bumblebee" at 1:30pm from Galax Va To Fries Jct or Austinvill Va, and usually the freight could make a straight run into Pulaski ahead of the Pass Train, the Pass Train would return from Fries to Fries Jct "register" call Disps and get the Block to Sranhoe, then Sranhoe would give the block to Austinvill, and by time the Pass would get to Austinvill the freight would be in Jct or get a PC Card from Austinvill Va To Pulaski.

3

stating the time the freight passed Austinville, if the freight hung upon Draper Hill the Pass Train would couple to him and push him in yard holding on to his train.

When the Walton Cut off was installed thru Pepper Tunnel 1900 - 1903 they installed an agency - Block at Pepper Va and Betspring Va to handle the Absolute Block thru Pepper Tunnel. The station at Pepper was a two story job agent lived upstairs Mr Ramsey & his family, my dad worked second shift there after 8 hr day came into effect Jean Ramsey was just a Baby so old man Ramsey his wife & other children got on no 2 went into Radford bought their groceries & returned on no 23, dad kept Jean for them while they were gone.

But: This section was Absolute Pepper to Betspring each way & these operators handled it, Walton Tower was an Armstrong job and only handled switches within the Up & Down Area, also had two switchmen to throw the levers, opr handled movement, msg, & T.O for everything East & West.

Then in 1915 to 1917 auto block signals were installed, Coal wharf was moved from Walton to Vicksburg, Walton Tower was installed a Genl Elec DC operated Tower, Pepper Va cut out, Station dismantled & taken to White Top NC on NC Branch, Cowan Tower Built Controller from Bluff to Betspring electric type machine pistol grip horizontal levers.

Then the little Mallet engine walked out on the scene 900 class V, The engineers at Pushers at Walton teased the Leverman & opr as being cut out by a "Signal Sys" They called the iron opr now the opr kidded the Engrs & Leverman for running two Engrs as the Mallets had two sets of pistons & drivers.

I hope you can read this, I thought I'd send you a

4

Rough draft for I know you will have some questions.

Thanks for the letter, don't forget the inside and outside shots of those towers, all I have is a picture by Luke of old Hager Tower PRR Now at Hazleton.

73

Bill Harman

Dear "Ad"

7-1-88

When the freight train left Galax Va ahead
of the Pass Train, the block was Austinville Va if
it had not cleared "An" then a PC card was issued
the Pass Train because the freight hadn't cleared the
block.

Look this mtl over?

Bill Harman

WESTERN GENERAL DIVISION.—Station Numbers and Distances.

| Station Numbers. | Section Numbers. | STATIONS. | Miles from Norfolk | Station Numbers. | STATIONS. | Miles from Norfolk |
|------------------|------------------|----------------------------|--------------------|------------------|---------------------|--------------------|
| 557 | | Corado, | 556 67 | BS | Ky. C. and C. Co. | 457 25 |
| 559 | | Kenova, | 559 00 | BT 2 | Fullers Spur, . . . | 457 25 |
| 573 | | North Kenova, . . . | 573 27 | FS 2 | Lee C. and C. Co. | 458 81 |
| 576 | | Shelbina, | 576 80 | BT 2 | Salles Spur, . . . | 458 81 |
| 580 | | Coal Grove, | 580 07 | SS 1 | Swa. C. and C. Co. | 458 81 |
| 583 | | Ironston, | 583 46 | BT 4 | Jas. C. and C. Co. | 458 84 |
| 588 | | Hanging Rock, . . . | 588 80 | BT 5 | P. R. C. and C. Co. | 458 75 |
| 593 | | Franklin Furnace, . . | 593 56 | BT 6 | Ch. C. and C. Co. | 459 49 |
| 598 | | Wheelerburg, | 598 50 | BT 6 | Sxt. C. and C. Co. | 459 44 |
| 601 | | Sciotoville, | 601 81 | | | |
| 607 | | Portsmouth, | 607 24 | | | |
| 612 | | Delta, | 612 72 | | | |
| 616 | | Radford, | 616 58 | | | |
| 621 | | Clifford, | 621 04 | | | |
| 623 | | Wetmore, | 623 44 | | | |
| 624 | | Wheelerburg, | 624 21 | | | |
| 627 | | Sargents, | 627 21 | | | |
| 631 | | Elkton, | 631 43 | | | |
| 635 | | Olden, | 635 20 | | | |
| 636 | | Waverly, | 636 86 | | | |
| 637 | | Kingston, | 637 28 | | | |
| 640 | | Omega, | 640 26 | | | |
| 643 | | Elkton, | 643 20 | | | |
| 648 | | Stony Creek, | 648 04 | | | |
| 651 | | Three Locks, | 651 20 | | | |
| 653 | | Lumbert, | 653 00 | | | |
| 656 | | Chillicothe, | 656 00 | | | |
| 659 | | Hopetown, | 659 70 | | | |
| 663 | | Kinnickinnick, . . . | 663 70 | | | |
| 665 | | Kingston, | 665 54 | | | |
| 669 | | Elmwood, | 669 56 | | | |
| 671 | | Haysville, | 671 20 | | | |
| 675 | | Carrollville, | 675 68 | | | |
| 684 | | Ashville, | 684 50 | | | |
| 688 | | Durvals, | 688 30 | | | |
| 693 | | Lockbourne, | 693 23 | | | |
| 697 | | Reese, | 697 73 | | | |
| 700 | | Valley Crossing, . . . | 700 07 | | | |
| 702 | | Infirmary, | 702 39 | | | |
| 704 | | Broad Street, | 704 17 | | | |
| 706 | | Joyce Ave., | 706 43 | | | |
| 706 | | Columbus, | 706 43 | | | |
| U. D. | | Bluefield, | 363 08 | | | |
| U. D. | | Graham, | 365 34 | | | |
| U. D. | | Graham Furnace, . . . | 365 57 | | | |
| U. D. | | St. Clair, | 369 30 | | | |
| U. D. | | Bailey, | 373 14 | | | |
| U. D. | | Tip Top, | 376 01 | | | |
| U. D. | | Witten's Mill, | 380 20 | | | |
| U. D. | | Five Oaks, | 385 43 | | | |
| U. D. | | Tazewell, | 390 20 | | | |
| U. D. | | Plagah, | 391 20 | | | |
| U. D. | | Maxwell, | 391 20 | | | |
| U. D. | | Gillespie, | 394 50 | | | |
| U. D. | | Founding Mill, | 397 00 | | | |
| U. D. | | Cedar Bluff, | 400 81 | | | |
| U. D. | | Richlands, | 403 20 | | | |
| U. D. | | Big Creek Branch, . . . | 404 00 | | | |
| BC 4 | | C. V. C. & I. Co., . . . | 408 16 | | | |
| V 30 | | Doran, | 406 25 | | | |
| V 31 | | Coal Creek Branch, . . . | 407 45 | | | |
| V 32 | | Hart's, | 408 73 | | | |
| V 33 | | Swords Creek, | 415 52 | | | |
| V 34 | | Gardner, | 417 38 | | | |
| V 35 | | Honaker, | 420 00 | | | |
| V 36 | | Finney, | 424 55 | | | |
| V 37 | | Johnstons, | 426 01 | | | |
| V 38 | | Arrip, | 428 62 | | | |
| V 39 | | Cleveland, | 431 48 | | | |
| V 40 | | Keiser, | 434 19 | | | |
| V 41 | | Carterton, | 436 26 | | | |
| V 42 | | Castlewood, | 440 32 | | | |
| V 43 | | St. Paul, | 443 23 | | | |
| V 44 | | Clinch Riv. Lr. Co., . . | 443 64 | | | |
| V 45 | | Russl. Cr. Br. Jct., . . . | 446 50 | | | |
| RC 1 | | Russl. Fl. Br. Jct., . . . | 447 11 | | | |
| RF 3 | | C. V. C. and C. Co., . . | 449 71 | | | |
| RC 2 | | K. C. C. and C. Co., . . | 447 87 | | | |
| V 61 | | Virginia City, | 447 28 | | | |
| V 62 | | Dwina, | 448 30 | | | |
| V 63 | | Va. Gas Coal Co., . . . | 453 00 | | | |
| V 64 | | Bannervane, | 453 48 | | | |
| V 65 | | Coeburn, | 455 42 | | | |
| V 66 | | Big Tom Br. Jct., . . . | 455 61 | | | |
| BT 1 | | Banner Spur, | 456 72 | | | |
| BS 1 | | Sp. C. and C. Co., . . . | 457 20 | | | |

SPECIAL INSTRUCTIONS.

1. All trains will keep to the right when running on double track.

2. The maximum speed of first-class trains between Roanoke and Radford is 45 miles per hour, between Radford and Bluefield 30 miles per hour. The maximum speed of Freight trains is 18 miles per hour. Work trains must not exceed 20 miles per hour.

Passenger trains must not exceed schedule speed descending grades between Bluefield and Lurich, Schooler and West End of Radford Double Track, and Christiansburg and Elliston. Freight trains must not exceed marginal time descending grades between Bluefield and Lurich, Schooler and West End Radford Double Track, and Christiansburg and Elliston. Special Rules A-7, A-9 and A-12 are annulled.

3. The block signals in use between West Roanoke and Bluefield are the permissive block signals, and freight trains will be spaced five minutes at all points, except between Elliston and Christiansburg, and between West End of Radford Double Track and Bluefield, where they will be spaced ten minutes. The block between Schooler and West End of Radford Double Track for eastbound freight trains will be operated as an absolute block. These signals do not give trains rights over trains moving in the opposite direction. Note Rules 201 to 216, inclusive.

4. Yard Master at East Radford will not permit westbound trains to follow a passenger train until the passenger train has passed the tower at West End of Radford Double Track, nor eastbound trains to follow a passenger train until the passenger train has passed Vickier.

5. The Operator at West End of Radford Double Track will not permit eastbound trains to follow a passenger train until the passenger train has arrived at East Radford station.

6. The Double Track extending from Roanoke to Elliston will be known as Roanoke Double Track, and the Double Track extending from Christiansburg to New River Bridge will be known as Radford Double Track.

7. The Operator at Elliston End Double Track will register all Eastbound Trains and all Westbound Passenger Trains. Conductors of Westbound Freight Trains will register their trains.

8. The Operator at the West End of Radford Double Track will register all Eastbound Trains