GROUP IV.—*Stopped Clocks.*

Locality.	State.	Distance.	Time.	No. of clocks.	W't.
Centrum,	S. C.	0	51^m06^s		
Charleston,	S. C.	20	51 12	4	3
Columbia,	S. C.	89	51	2	2
Savannah,	Ga.	89	51 55	2	2
Langley,	S. C.	103	53	1	1
Augusta,	Ga.	111	52	1	1
Cochran,	Ga.	192	52	2	2
Macon,	Ga.	203	51 30	1	1
Jacksonville,	Fla.	211	52	1	1
Atlanta,	Ga.	252	52 22	4	3
Catlettsburg,	Ky.	405	53	1	1
Nashville,	Tenn.	438	54 12	1	1
Columbus,	Miss.	481	56	1	1
Covington,	Ky.	488	55	1	1
Cincinnati,	O.	491	54	3	2
Cincinnati,	O.	491	54 21	1	1
Meridian,	Miss.	500	54	1	1
Lockland,	O.	505	54 26	4	3
Havre de Grace,	Md.	515	55	1	1
Pittsburg,	Pa.	525	55	1	1
Newcastle,	Del.	538	54	1	1
Atlantic City,	N. J.	552	54	1	1
Wooster,	O.	558	55 45	1	1
Newcastle,	Pa.	565	55	1	1
Indianapolis,	Ind.	581	55	1	1
Memphis,	Tenn.	587	54 50	6	4
Cairo,	Ill.	588	53	1	1
Meadville,	Pa.	608	55	1	1
Newark,	N. J.	640	55	1	1
Brooklyn,	N. Y.	643	55	1	1
New York,	N. Y.	645	55 15	2	1
Ithaca,	N. Y.	696	55	1	1
Manistee,	Mich.	855	57	1	1

We may arrange these in groups or sets according to their distances, as was done in the discussion of group III, and obtain the following equations of condition.

		Weight.	Residuals.
0 to 89	$x + 59y = 15$	7	+ 12·29
103 to 192	$x + 150y = 69$	4	− 7·21
203 to 252	$x + 234y = 110$	5	− 16·37
405 to 491	$x + 469y = 194$	7	− 11·29
500 to 588	$x + 549y = 209$	16	+ 4·04
608 to 696	$x + 642y = 237$	5	+ 12·80
855	$x + 855y = 354$	1	− 24·97

The normal equations are:

$$45x + 183335\,y = 7172.$$
$$18335x + 9567895\,y = 3717233.$$