

THE NEW YORK-BUFFALO ENDURANCE RUN.

The Starting Vehicles.

The number of entries for the contest at the time the books were closed had reached eighty-nine, and of these eighty vehicles started on Monday morning—certainly a very satisfactory proportion. These eighty vehicles were divided among the different classes as follows: In Class A (less than 1,000 pounds class) there were seventeen starters; in Class B (1,000 to 2,000 pounds class) there were thirty-six starters; in Class C (over 2,000 pounds class) there were eighteen starters; in Class D (motor cycles) there were six starters, and in Class E (public delivery vehicles) three starters. Fifty-four of the vehicles were gasoline propelled and twenty-six steam propelled. There were represented in the start the products of twenty-four manufacturers of gasoline vehicles, of eleven manufacturers of steam vehicles and of one manufacturer of both gasoline and steam vehicles. Electric vehicles were not entered. With three exceptions all the manufacturers are American.

THE START.

Most of the vehicles of the out of town competitors arrived on Saturday, and were provided with the official number plates and weighed to check the weights given by the entrants. Some belated machines arrived only on Sunday. In general the declared weight was found to be nearly cor-

rect, but in three cases it was so far off that the vehicles had to run in another class. These were the following: No. 50, entered by the Geneva Automobile and Manufacturing Company; declared weight, 900 pounds; actual weight, 1,260 pounds; was transferred from Class A to Class B; No. 59, entered by John Jacob Astor; declared weight, 1,900 pounds; actual weight, 2,750 pounds; was transferred from Class B to Class C; vehicle No. 75, entered by C. J. Field; declared weight, 1,500 pounds; actual weight, 880 pounds; was transferred from Class B to Class A.

The last days of the previous week had brought a hot spell to New York; on Sunday the atmosphere was windy, but on Monday morning the weather conditions were almost ideal for the start—a cool and calm atmosphere and a clear sky. The vehicles began to arrive and line up in Fifty-eighth street in two rows along the curbs, as per the programme, at about 7 o'clock. Crowds of the curious and a multitude of reporters and photographers began to arrive at the same time. The order and dispatch with which the preparations for the start proceeded were something worthy of notice, and in this respect the endurance contest was favorably distinguished from many much smaller events. The oiling up of the machine, the adjustment of parts, etc., which usually keeps the operator busy till the signal to start is given—and sometimes longer—seem to have been attended to before the vehicles arrived at the scene of the start, and there was therefore practi-

cally none of the usual tinkering and hurrying. Shortly after 8 o'clock the first vehicle was started; it turned into Fifth avenue and proceeded north, at an easy gait, conforming to the regulations. The crowd of spectators that had assembled formed two lines on the sides of the avenue, reaching 'way up to Fifty-ninth street, and the vehicles were sent off in quick succession. The writer noticed but one case where the vehicle did not start at the signal; it started a moment later, however. There was also a remarkable absence of the noise, smoke and smell we are accustomed to when a large number of vehicles congregate, as here. The operators did not seem to think it necessary to keep the motors running a long time before the start; most of them only started up a few minutes before the vehicles left, and there was visible smoke only from a few of the machines when they left.

At 8:30 the starters had completed their task and the crowd dispersed. One of the vehicles which had been started was detained because its owner had not arrived. It proceeded to in front of the clubhouse and finally, after both occupants had got ready, followed the rest of the vehicles.

David W. Bishop, Jr., one of the starters, was arrested on Sunday on the complaint of John B. Sexton, president of the Board of Health, for running his automobile faster than 16 miles an hour; he was fined \$50 in the Morrisania Court Monday morning. The case properly belonged to the Harlem Court, but as the same magis-



ENTRIES.

Official Number	Class	GENERAL DESCRIPTION.	NAME AND ADDRESS OF MANUFACTURER.	ENTERED BY	No. of Passengers including Driver.	Motive Power.	Horse Power.	Weight, including fuel, supplies and equipment.
1	C	Touring Car.....	Robinson Motor Vehicle Co., Hyde Park, Mass.	J. T. Robinson, Jr.	4	Gasoline.	16	2700 lbs.
2	C	Panhard-Upright Engine— Tonneau Body.....	Panhard-Levassor, Paris, France.	A. R. Shattuck.	2	Gasoline.	12	2550 lbs.
3	A	Knickerbocker, No. 19.....	Ward Leonard Electric Co., Bronxville, N. Y.	Ward Leonard Electric Co.	3	Gasoline.	5	980 lbs.
4	B	2 Passenger Pleasure Carriage.	Haynes-Apperson Co., Kokomo, Ind.	Haynes-Apperson Co.	2	Gasoline.	8	1910 lbs.
5	B	2 Passenger Pleasure Carriage.	Haynes-Apperson Co., Kokomo, Ind.	Haynes-Apperson Co.	2	Gasoline.	8½	1940 lbs.
6*	D	Motor Bicycle.....	Stratton Motor Bicycle Co., 7 Wall Street, New York.	Edmund F. Stratton.	1	Gasoline.	1¾	78 lbs.
7	A	Runabout.....	The George N. Pierce Co., Buffalo, N. Y.	G. N. Pierce Co.	2	Gasoline.	2¾	610 lbs.
8	A	Runabout.....	The George N. Pierce Co., Buffalo, N. Y.	G. N. Pierce Co.	2	Gasoline.	2¾	600 lbs.
9	D	Motor Bicycle.....	E. R. Thomas Motor Co., Buffalo, N. Y.	E. R. Thomas Mo- tor Co.	1	Gasoline.	1	90 lbs.
10	A	Gladiator—Voiturette.....	Clement, Paris, France.	R. P. Scott.	2	Gasoline.	3	750 lbs.
11	A	Runabout.....	White Sewing Machine Co., Cleveland, Ohio.	White Sewing Machine Co.	2	Steam.	6	995 lbs.
12	B	Stanhope.....	White Sewing Machine Co., Cleveland, Ohio.	White Sewing Machine Co.	2	Steam.	6	1350 lbs.
13	B	Stanhope.....	White Sewing Machine Co., Cleveland, Ohio.	White Sewing Machine Co.	2	Steam.	6	1350 lbs.
14	B	Stanhope.....	White Sewing Machine Co., Cleveland, Ohio.	White Sewing Machine Co.	2	Steam.	6	1350 lbs.
15	B	Runabout.....	Overman Automobile Co., 81 Fulton Street, New York.	Overman Auto- mobile Co.	2	Steam.	6½	1400 lbs.
16	B	Runabout.....	Overman Automobile Co., 81 Fulton Street, New York.	Overman Auto- mobile Co.	2	Steam.	6½	1270 lbs.
17	E	Light Delivery Wagon.....	Baldwin Motor Wagon Co., Providence, R. I.	Baldwin Motor Wagon Co.	2	Steam.	7	2620 lbs.
18	C	Phaeton.....	Holyoke Automobile Co., Holyoke, Mass.	C. R. Greuter.	2	Gasoline.	9	3310 lbs.
19	E	3-ton Steam Truck.....	American Bicycle Co., Toledo, Ohio.	American Bicycle Co.	3	Steam.	20	10,180 lbs.
20	B	Stanhope.....	American Bicycle Co., Toledo, Ohio.	American Bicycle Co.	2	Steam.	6½	1630 lbs.
21	B	Stanhope.....	American Bicycle Co., Toledo, Ohio.	A. R. Townsend.	2	Steam.	6½	1710 lbs.
22	B	12 H. P. Semi-Racing Car.....	Winton Motor Carriage Co., Cleveland, Ohio.	Alexander Dow.	2	Gasoline.	12	1880 lbs.
23	C	Packard, Model "C".....	Ohio Automobile Co., Warren, Ohio.	Ohio Automobile Co.	2	Gasoline.	12	2290 lbs.
24	C	Packard, Model "C".....	Ohio Automobile Co., Warren, Ohio.	Ohio Automobile Co.	2	Gasoline.	12	2300 lbs.
25*	C	40 H. P. Racing Car.....	Winton Motor Carriage Co., Cleveland, Ohio.	Albert C. Bostwick	2	Gasoline.	40	2600 lbs.
26	B	12 H. P. Semi-Racing Car.....	Winton Motor Carriage Co., Cleveland, Ohio.	Bradford B. Mc- Gregor.	2	Gasoline.	12	1850 lbs.
27	B	Autocar.....	The Autocar Co., Ardmore, Pa.	Louis S. Clarke.	2	Gasoline.	8½	1150 lbs.
28	B	4 Passenger Surrey.....	Lane Motor Vehicle Co., Poughkeepsie, N. Y.	Lane Motor Ve- hicle Co.	2	Steam.	9.99	1600 lbs.
29	C	Phaeton.....	Automobile Co. of America, New York.	John H. Flagler.	2	Gasoline.	9	2600 lbs.
30	C	Phaeton.....	Automobile Co. of America, New York.	S. D. Ripley.	2	Gasoline.	9	2230 lbs.
31	C	Phaeton.....	Automobile Co. of America, New York.	Albert T. Otto.	2	Gasoline.	9	2240 lbs.
32	B	12 H. P. Semi-Racing Car.....	Winton Motor Carriage Co., Cleveland, Ohio.	Percy Owen.	2	Gasoline.	12	1980 lbs.
33	B	Phaeton.....	Winton Motor Carriage Co., Cleveland, Ohio.	H. Rogers Win- throp.	2	Gasoline.	8	1930 lbs.
34	B	Gasoline Carriage.....	St. Louis Motor Carriage Co., St. Louis, Mo.	St. Louis Motor Carriage Co.	3	Gasoline.	7	1440 lbs.
35	B	Touring Wagon.....	Foster Automobile Mfg. Co., Rochester, N. Y.	Foster Automobile Mfg. Co.	2	Steam.	6	1380 lbs.
36	A	Runabout.....	Locomobile Co. of America, New York.	Locomobile Co. of America.	2	Steam.	3½	930 lbs.
37	A	Runabout.....	Locomobile Co. of America, New York.	Locomobile Co. of America.	2	Steam.	3½	890 lbs.
38	A	Runabout.....	Locomobile Co. of America, New York.	Locomobile Co. of America.	2	Steam.	3½	930 lbs.
39	B	Large Runabout No. .02.....	Locomobile Co. of America, New York.	Locomobile Co. of America.	2	Steam.	4½	1280 lbs.

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40	B	Touring Carriage.....	Locomobile Co. of America, New York.	Locomobile Co. of America.	4	Steam.	10	1900 lbs.
41	B	Touring Carriage.....	Locomobile Co. of America, New York.	Locomobile Co. of America.	4	Steam.	10	1320 lbs.
42	E	Quick Delivery.....	Locomobile Co. of America, New York.	Locomobile Co. of America.	—	Steam.	10	2430 lbs.
43	B	4 Passenger Pleasure Carriage.	Haynes-Apperson Co., Kokomo, Ind.	Wm. H. Browning.	3	Gasoline.	8	1930 lbs.
44	C	Dos a dos.....	F. B. Stearns & Co., Cleveland, Ohio.	Henry K. Browning.	4	Gasoline.	—	2040 lbs.
45	A	Open Stanhope.....	Grout Brothers, Orange, Mass.	Grout Brothers.	2	Steam.	—	920 lbs.
46*	C	Mercedes.....	Daimler Mfg. Co., Cannstatt, Germany.	Wm. K. Vanderbilt, Jr.	2	Gasoline.	35	2400 lbs.
47	A	Open Runabout.....	Locomobile Co. of America, New York.	C. Arthur Benjamin.	2	Steam.	3½	960 lbs.
48	B	Autocar.....	The Autocar Co., Ardmore, Pa.	Wm. Morgan.	2	Gasoline.	8	1200 lbs.
49*	C	Panhard.....	Panhard-Levassor, Paris.	Dr. J. G. Lyman.	2	Gasoline.	12	2500 lbs.
50	B	Runabout.....	Geneva Automobile & Mfg. Co., Geneva, Ohio.	Geneva Automobile & Mfg. Co.	2	Steam.	5	1260 lbs.
51	B	Touring Car.....	Searchmont Motor Co., Philadelphia, Pa.	E. B. Gallaher.	2	Gasoline.	12	1930 lbs.
52	B	Touring Car.....	Searchmont Motor Co., Philadelphia, Pa.	E. B. Gallaher.	2	Gasoline.	12	1850 lbs.
53	B	Touring Car.....	Searchmont Motor Co., Philadelphia, Pa.	E. B. Gallaher.	2	Gasoline.	12	1850 lbs.
54	B	Runabout.....	Stearns Steam Carriage Co., Syracuse, N. Y.	Stearns Steam Carriage Co.	2	Steam.	6	1470 lbs.
55	C	Panhard.....	Panhard-Levassor, Paris.	David Wolfe Bishop.	2	Gasoline.	30	2800 lbs.
56	C	Packard, Model "C".....	Ohio Automobile Co., Warren, Ohio.	A. L. McMurtry.	2	Gasoline.	14	2410 lbs.
57*	B	Touring Buggy.....	Milwaukee Automobile Co., Milwaukee, Wis.	Milwaukee Automobile Co.	2	Steam.	2	1450 lbs.
58	C	Gasmobile.....	Automobile Co. of America, New York.	H. R. Taylor.	3	Gasoline.	9	2410 lbs.
59	C	Mark VIII.....	Electric Vehicle Co., New York.	John Jacob Astor.	2	Gasoline.	5	2750 lbs.
60	C	Panhard.....	Panhard-Levassor, Paris.	Harlan W. Whipple.	4	Gasoline.	8	2270 lbs.
61	C	Packard, Model "C".....	Ohio Automobile Co., Warren, Ohio.	John M. Satterfield.	2	Gasoline.	12	2150 lbs.
62*	A	Autocar.....	The Autocar Co., Ardmore, Pa.	Herman B. Baruch, M. D.	2	Gasoline.	6	900 lbs.
63	A	Phaeton (3-wheel).....	Duryea Power Co., Reading, Pa.	Duryea Power Co.	2	Gasoline.	8	980 lbs.
64	D	Orient Motor Bicycle.....	Waltham Mfg. Co., Waltham, Mass.	C. H. Metz.	1	Gasoline.	2¾	200 lbs.
65	C	Surrey.....	Century Motor Vehicle Co., Syracuse, N. Y.	C. R. Woodin.	4	Steam.	9	2100 lbs.
66	A	Knickerbocker No. 20.....	Ward Leonard Electric Co., Bronxville, N. Y.	Ward Leonard Electric Co.	3	Gasoline.	5	960 lbs.
67	D	Indian Motor Bicycle.....	Hendee Mfg. Co., Springfield, Mass.	Hendee Mfg. Co.	1	Gasoline.	1¾	100 lbs.
68	B	Gasoline Runabout.....	Electric Vehicle Co., New York.	Electric Vehicle Co.	2	Gasoline.	4½	1820 lbs.
69	B	16 H. P. Touring Car.....	Electric Vehicle Co., New York.	Electric Vehicle Co.	4	Gasoline.	16	2650 lbs.
70	B	Touring Wagon.....	Foster Automobile Mfg. Co., Rochester, N. Y.	Foster Auto Co.	2	Steam.	6	1350 lbs.
71*	C	40 H. P. Racing Car.....	Winton Motor Carriage Co., Cleveland, Ohio.	Alex. Winton.	2	Gasoline.	40	2500 lbs.
72	A	5 H. P. Motorette.....	DeDion-Bouton Motorette Co., Brooklyn, N. Y.	DeDion-Bouton Motorette Co.	2	Gasoline.	5	930 lbs.
73	A	5 H. P. Motorette.....	DeDion-Bouton Motorette Co., Brooklyn, N. Y.	DeDion-Bouton Motorette Co.	2	Gasoline.	5	960 lbs.
74	A	8 H. P. Motorette.....	DeDion-Bouton Motorette Co., Brooklyn, N. Y.	Kenneth A. Skinner.	2	Gasoline.	8	880 lbs.
75	A	Motorette.....	DeDion-Bouton Motorette Co., Brooklyn, N. Y.	C. J. Field.	4	Gasoline.	—	880 lbs.
76	B	Stanhope.....	Steam Vehicle Co. of America, New York.	L. Schermerhorn.	2	Steam.	6	1130 lbs.
77	C	Phaeton.....	Automobile Co. of America, New York.	Alex. Fischer.	2	Gasoline.	9	2330 lbs.
78	B	Columbia Runabout Mark VIII	Electric Vehicle Co., New York.	J. Seligman.	3	Gasoline.	4½	1800 lbs.
79	C	Packard.....	Ohio Automobile Co., Warren, Ohio.	T. J. Martin.	3	Gasoline.	16	2850 lbs.
80	B	Columbia Runabout Mark VIII	Electric Vehicle Co., New York.	G. B. Pettingill.	2	Gasoline.	4½	1720 lbs.
81	B	Stanhope Runabout.....	U. S. Long Distance Automobile Co., Jersey City, N. J.	F. E. Lewis.	2	Gasoline.	7	1520 lbs.
82	A	Gasoline Runabout.....	Knox Automobile Co., Springfield, Mass.	F. H. Fowler.	2	Gasoline.	4	850 lbs.

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83*	—	Entry Blanks were not checked						
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85	B	Motorette	Darracq & Cie., Paris.	J. Peck.	2	Gasoline.	6	1110 lbs.
86	B	Hydrocar	American Bicycle Co., New York.	M. H. Winters.	2	Gasoline.	—	1780 lbs.
87	D	Regas Motor Bi.....	Regas Vehicle Co., Rochester, N. Y.	J. H. Sager.	1	Gasoline.	1½	110 lbs.
88	D	Regas Motor Bi.....	Regas Vehicle Co., Rochester, N. Y.	G. D. Greene.	1	Gasoline.	2¼	160 lbs.
89	D	Regas Motor Bi.....	Regas Vehicle Co., Rochester, N. Y.	Warren L. Stoneburn.	1	Gasoline.	1½	110 lbs.

NOTE.—The numbers with a * did not start.

trate sits in both courts, Magistrate Flammer, who had received a letter from the Automobile Club asking him to hear the case early, passed upon it in the Morrisania Court. Immediately after paying his fine Mr. Bishop jumped into his automobile, which was in waiting outside, and started for the Plaza, Fifty-ninth street and Fifth avenue.

Col. John Jacob Astor in his gasmobile got away at 9:15.

OCCUPANTS OF THE VEHICLES.

1. J. T. Robinson, J. T. Robinson, Jr., E. Whiting and J. McNulty.
2. A. R. Shattuck and R. Raoul.
3. H. Ward Leonard and Mr. Carlson.
4. Elmer Apperson and Hugh D. Meier.
5. Edgar Apperson and H. S. Chapin.
7. D. Ferguson and A. J. Keller.
8. P. P. Pierce and Charles Sheppy.
9. Thomas Motor Bicycle.
10. R. P. Scott.
11. R. H. White and W. J. Hammer.
12. O. S. Southworth and A. W. Foote.
13. M. Hughes and C. F. Condon.
14. P. H. Deming and J. W. Jones.
15. E. E. Degowin and George Kipp.
16. F. R. Gordon and D. E. Richard.
17. Mr. Baldwin.
18. C. R. Greuter and H. E. Dey.
19. A. W. Doe, Mr. Ackhurst and Mr. Murphy.
20. H. Curtis and Grant Rollings.
21. H. Lytle and C. Peterson.
22. Alexander Dow and James L. Stewart.
23. J. W. Packard and G. L. Weiss.
24. William Hatcher and E. C. Oliver.
26. D. B. McGregor and A. C. Bostwick.
27. L. S. Clarke and Walter Evans.
28. O. K. Raymond and James Roosa.
29. C. Meyer and R. Willoughby.
30. E. Higgins and W. H. Walter.
31. F. W. Walsh and J. Rogers.
32. H. L. Owesney and A. E. Maltby.
33. H. R. Winthrop and T. Slidell.
34. J. L. French, C. C. Bramwell and Mr. Artman.
35. Park Densmore and F. J. Holley.
36. J. Murray Page and J. Harry Marston.
37. J. A. Mitchell and Frank Cole.
38. G. A. Knowles and J. Yokers.
39. Thomas W. Clarke and G. Beverly Towles.
40. S. T. Davis, Jr. and E. Fahlstrom.
41. W. F. Murphy and C. F. Dennis.

42. Robert Dwyer and William C. Ashley.
43. William H. Browning and wife and Frank Nut.
44. H. K. Browning and wife and O. S. McFarland.
45. Charles Grout and B. L. Wright.
47. C. A. Benjamin and William H. Birdsell.
48. William Morgan and Frank Rushmore.
50. W. B. Steen and Mr. Hadley.
51. E. B. Gallaher and William J. Hille.
52. L. S. Chadwick and E. F. Duffy.
53. V. V. Torbensen and William Arbor.
54. H. Trebert and J. Griffin.
55. David Wolfe Bishop.
56. A. L. McMurtry.
58. H. R. Taylor and George Griswold.
59. John Jacob Astor and W. H. Owen.
60. Harlan W. Whipple, W. E. Scarritt and Mr. Clay.
61. John M. Satterfield.
63. H. Burhans and Mr. Morgan.
64. Charles H. Metz.
65. C. R. Woodin, William Van Wagoner and Charles Harry.
66. C. J. Wridgway and E. Deloye.
67. O. Hedstrom.
68. E. H. Cox and P. Jenness.
69. Mr. and Mrs. A. L. Riker, Robert Graves and Edward Adams.
70. F. R. Densmore and S. D. Waldron.
72. J. Louvegnez and Sam. Hartley.
73. C. H. Langerman and D. F. Downs.
74. Kenneth A. Skinner.
75. C. J. Field and L. Rand.
76. L. Schermerhorn.
77. Alexander Fischer; Mr. Vestal.
78. Jefferson Seligman and H. P. Maxim.
79. T. J. Martin.
80. E. B. Pettengill and F. A. Saio.
81. F. E. Lewis and E. A. Riotte.
82. F. H. Fowler and H. G. Farr.
85. T. C. Curtis and Mr. Rowland.
86. M. H. Winters and J. E. Felt.
87. J. H. Sager.
88. George D. Green.
89. W. L. Stoneburn.

The First Stage.

The weather was exceedingly fine all day, but the roads were dry, dusty, at times very sandy, hilly, winding and treacherous. During the forenoon it was sometimes difficult to find the right route. In New York itself some motorists were obliged to make inquiries. In the neighborhood of

Tarrytown, or rather within the limits of the town, two vehicles took a course that would have obliged them to return to the spot, where an arrow was wanted badly.

The sand in the road was at times fully 8 to 10 inches deep, and frequently covered stones, and even rocks, that gave all the vehicles very severe shocks, and often threatened to throw the occupants from the seat. The streets within the limits of the towns were usually sprinkled, and mostly in fair condition. Some of the bridges had loose planks that were tipped up by a vehicle going at a high rate of speed, but such planks fell back in time for all the succeeding vehicles.

Some 10 to 15 miles beyond Nelson Hill was a red flag guarded by a man to warn all approaching vehicles of a bad ditch in the road. Half an hour's work on the part of this man would have sufficed to make that spot as smooth as the rest of the road. The average speed of all the vehicles that have come to the writer's notice was well within the limit set down in the rules. In towns all vehicles slowed down to 8 miles per hour and below. In one village a guardian of the peace warned the motorists not to exceed 4 miles per hour.

The grades were frequently very heavy, and all vehicles coasted down hill at very high speed to make up for lost time. Frequently there were sharp turns at the bottom of the hills which taxed the nerve of all concerned. The speed (down hill) may frequently have exceeded 25 miles per hour, and the contestants, with powerful brakes on their vehicles, took their chances coasting, relying on the brakes to bring them up suddenly in case of an emergency.

The carriages that entered the hill climbing contest (Nelson Hill) were started off at intervals of one and a half minutes on an average. One of the powerful machines was equipped with a bar, trailing along, that prevented its rolling backward should it come to a stop on the hill. This vehicle caught up with the preceding vehicle, which stopped, rolled backward a little and ran into the lamp of the big carriage. Fortunately the motor of the preceding carriage picked up the load, so that no serious harm was done.

The only accident that might have had serious results happened to B 53. The

front axle was broken some 8 to 10 miles beyond Nelson Hill. Several miles further the machine operated (I think) by Mr. Wridgeway was seen in a condition that called for the removal of the differential and rear axle.

One of the large steam machines ran its exhaust into the dust with such force as to make it rather uncomfortable for those behind.

The 3-ton steam truck entered by the American Bicycle Company failed on a hill beyond Yonkers and was compelled to abandon the course.

One of the incidents of the trip to Peekskill was a collision of a bicycle with the vehicle driven by Col. John Jacob Astor. The bicyclist rode quickly from a crossing directly into Colonel Astor's 12 horse power automobile; he wrecked his wheel but was not injured himself. Colonel Astor paid the wheelman with \$50 for the purchase of a new bike, although, it is said, he was not in the least to blame for the accident.

At Ossining a horse hitched to a light breaking cart became unmanageable, and after rearing and plunging completed his gayety by turning a back flip, and, breaking the harness and shafts, landed with his head under the cart. The driver was so badly scared that he did not even get out of the cart.

The White steam carriages seemed to run very smoothly, and to be in lack of steam only on some of the heaviest hills, when the auxiliary hand pump was resorted to. The occupant of the second seat occasionally assisted in the operation by working the hand air pump to maintain the pressure on the fuel, this being done from the seat while the carriage was in motion, thus occasioning no delay. The

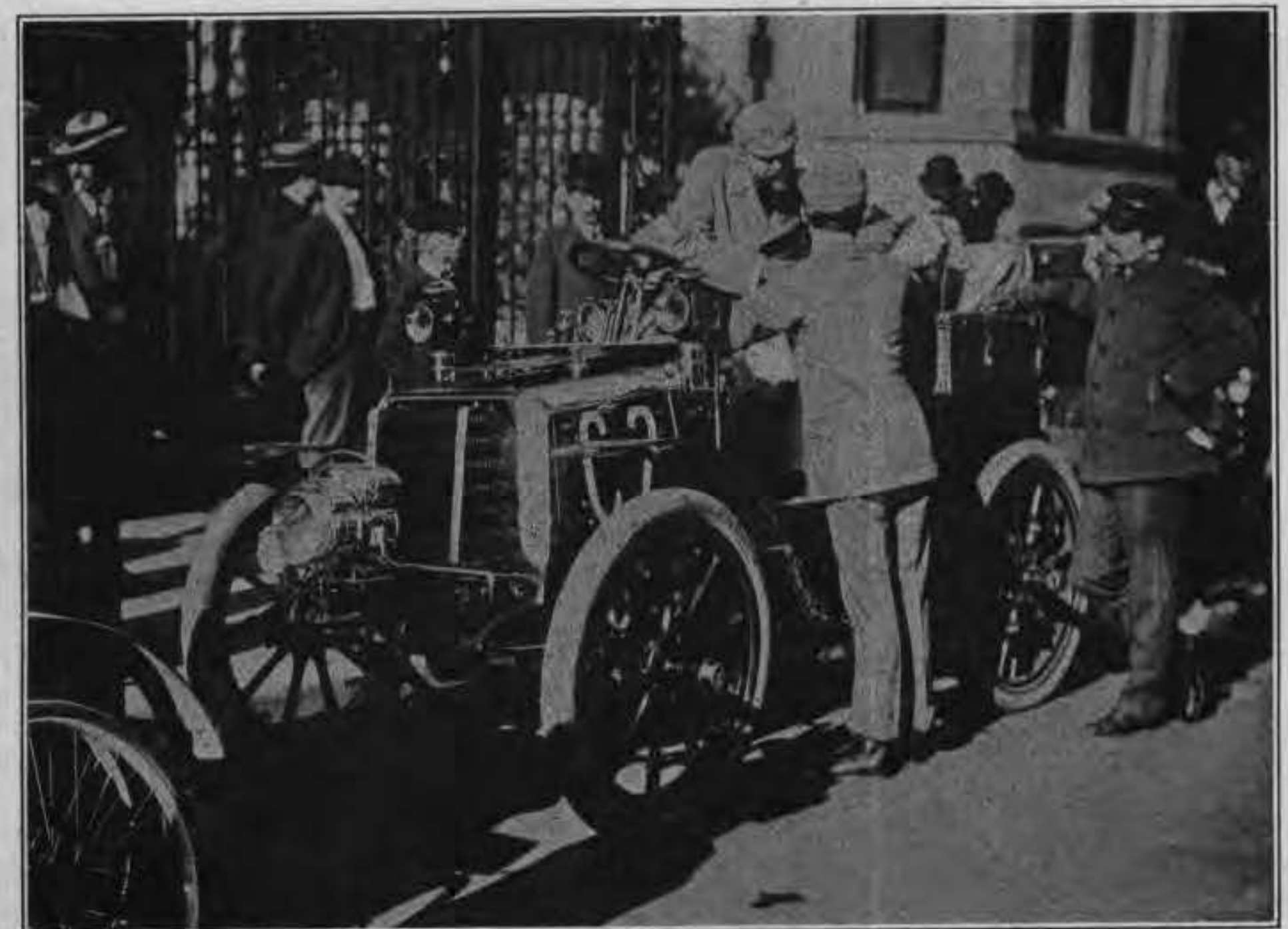


A. C. BOSTWICK AND B. B. McGR

water tank was filled once between stations, both in the morning and afternoon. After luncheon at Peekskill this vehicle proceeded to Nelson Hill, being one of the last to start in the hill climbing test. There were then about ten or twelve vehicles sidetracked, some of them blocking the road, which made it difficult for the vehicles that went up to make the best time possible.

Oscar Hedstrom's motor bicycle collapsed with him on the road, and it is stated that he was severely cut.

The Lane steam s Surrey arrived at Poughkeepsie ahead of any of the other steam carriages and was followed soon afterward by the Victor carriage containing Mr. Rianhart and his mechanic.



PRESIDENT SHATTUCK IN HIS PANHARD.



A. C. BOSTWICK AND B. B. MCGREGOR IN THE WINTON SEMI RACER.

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The following carriages had arrived at Poughkeepsie at 6 p. m.:

B 4, B 5, D 64, B 80, B 81, A 73, A 74, A 75, A 72, B 39, B 86, A 37, C 55, B 39, B 13, B 12, A 45, A 11, B 35, B 14, B 70, C 31, B 32, B 22, A 38, C 1, A 36, B 52, A 47, B 21, B 54, A 8, A 63, B 78, C 18, B 34, C 79, C 56, B 26, B 15, B 16, C 24, C 23, C 61.

The following is a list of a great number of arrivals and reports of their operators: C 56 (11:14) got a little too much lubricating oil into the cylinders; no hitch; B 22 (11:11) was tied up thirty minutes by a hot box; A 8 arrived shortly after 11; A 75 (11:22) blew out one inner tube, which was replaced; A 74 (11:31) punctured a tire and lost about fifteen minutes; B 34 (11:40) had no trouble; B 14 (11:03) reported a perfect run; C 23 (10:55) had not a single stop; C 24 (10:56) had no stop en route; B 26 (10:18), no stop; A 66 was apparently in good order; operator could not be found; C 30 (10:30) made one stop to exchange two ignition plugs; C 29 (10:30) had no stop; B 54 (11:15), no stop; C 77 (11:02), no stop; A 73 had one rear tire cut and some trouble with the battery connections coming loose; B 70 (10:02) had no stop; B 26 adjusted the steering mechanism at noon time; A 72 (11:15) had no trouble; B 85 (10:53) had no stop; B 68 (11:52), no trouble; A 47 (8:04) had to tighten and repack the stuffing box of the valve stem; on A 38 (10:56) one hind tire required a new inner tube; C 69 was a new carriage, said to have left the shop only the previous day; the engine heated a bit; A 63 (11:59) had a hot bearing in the engine; C 79 arrived about 11:17 and made no stop en route; in C 44 (11:59) the gasoline tank was injured on account of the carriage springs being too weak in front; B 43 (11:57) had no trouble; on C 18 (11:24) the



K IN HIS PANHARD.

throttle control of the vaporizer required a little attention; D 64 (11:35) burst one rear tire, repaired inner tube and tied rags around outer tube; B 27 (10:59) had one defective rear sprocket, which was replaced at noon; no delays whatever; C 58 punctured one tire and replaced it at noon; the chain slipped from the sprocket of the circulating pump; two igniter plugs were exchanged; B 76 (11:51) only made a stop for water; D 88 (1 p. m.) had no trouble; C 31 (11:11) dropped a pin out of the sprocket, which was replaced at once; E 17 (11:21) reported a stop for water made en route; C 2 made no stop whatever; C 65 (12:14) took water in en route; A 82 (11:43) had no trouble; B 4 (10:59) made no stop and had no trouble; C 55 (11:18) had no stop or trouble.

At the closing of the control (9:30 p. m.) seventy-five vehicles out of the eighty starters had arrived.

SEEN FROM THE "HOLYOKE."

Harry E. Dey, who was slated as a passenger with Mr. C. R. Greuter, of the Holyoke Automobile Company, writes:

"At 8:25 we were sent off on a very pleasant journey. The weather was ideal and had been dry long enough to put the roads in good condition. This vehicle, which weighs 3,300 pounds, with only a 9 horse power engine, is a marvel in taking hills, and is also quite speedy, an average speed of 15 miles per hour being easily maintained.

"We went up Fifth avenue at a 15 mile an hour gait to 111th street, thence over to and up Seventh avenue; at 124th street met B 53 in trouble, which they soon fixed and passed us; up Seventh avenue to Central Bridge, across the Harlem, then up Jerome avenue and Broadway to Yonkers, Hastings, Irvington and other beautiful places we quickly skimmed along. The road was plentifully supplied with bicycle and mounted police, but only one of them shook a warning finger at us. They behaved very well. Our first stop was of four minutes at 10:05 at Tarrytown to repair a wire cord connecting the vaporizer to its controlling handle.

"After lunch we started out for Nelson Hill for the hill climbing contests. This hill is about 4 miles from Peekskill, but the time is not taken until the top of the hill is reached, except that taken at the foot for the hill test. In this hill contest there was considerable confusion, the road being very narrow and uneven. A machine would get stalled, another machine would come along and not be able to get by without losing its momentum, and in consequence get stalled also, or a horse team would get in the way. There appeared to be more of the latter in that section than any other part of the run. Our engine got "cranky" just before attempting the hill, so we did not go up as well as we otherwise would, but we went up without any hitch at a slow rate of speed.

"We reached Poughkeepsie at 5:31, mak-

ing only one stop en route, that being of about twenty minutes, due to taking a very sharp corner at a speed of about 10 miles per hour, the result being that we found ourselves with one wheel against a rock, another in a 6-inch hole, a broken contact wire and the low speed clutch locked fast. With the help of a few of the natives we managed to get the 3,300 pounds of metal up on the level road and were soon proceeding on our way as well as ever, but perhaps a bit more cautious on sharp turns. We passed the wreck of a Searchmont, the axle being broken in two, due to a very bad rock or other obstruction in the road. Some boys warned us as we approached it, so we passed at a slow speed.

"I hear that the Peekskill paper this afternoon had an article relative to us that was far from complimentary to automobiles, complained of their noise and their smoke and the jiggling and smell, etc. The reporter was evidently a 'hoss' man.

"A. L. Riker had considerable trouble with his engine getting hot, which he lays to the fact that his engine came out of the machine shop at 5 o'clock the night before."

SOME IMPRESSIONS.

One of our writers who rode on vehicle B 34 writes from Poughkeepsie as follows:

"So far it has been a delightful experience, and there are a number of strong impressions indissolubly imprinted upon my mind as a result of the first day's run. One of the most prominent of these impressions is the great interest and cordiality of the populace along the entire route of travel. Everybody 'was out,' and most of the people waved handkerchiefs, flags, etc., at the chauffeurs, and in every way showed a keen interest in us and our welfare. The small boys stood at the doubtful corners and directed us which way to turn, and even pointed out bad places in the road, thus saving us many ugly jounces. Moreover, the country gentry had their 'hay motors' out by the score, educating them to the new method of road propulsion. These things made the heart of the motormen glad, and as a result they showed the greatest of good feeling to each other, and several really chivalrous acts were done by those engaged in the run. For instance, at one point we mistook our road, and a Packard vehicle, driven by A. L. McMurry, followed us for about a quarter of a mile to notify us of our mistake. Again we ran completely out of gasoline 6 miles from Cold Spring. What to do we did not know, when all of a sudden a good Samaritan came along in the shape of the Baldwin steam delivery van and gallantly gave us enough gasoline to carry us to Cold Spring. These two instances of good fellowship were highly appreciated by us, and are samples of the extreme good feeling among all the contestants.

"There were very few serious accidents, although many of the vehicles had to stop

for one or two minutes during the run to make some slight adjustment or do a little oiling. This is only natural, as many were new machines and some had not run more than 20 miles before the start of the run."

Another representative, who rode in a Packard carriage, writes:

As soon as the smooth roads of the city gave way to the more hilly and stony roads of the country the troubles commenced, a number of vehicles being passed, evidently having trouble with the motors. The majority of vehicles stopped were the lighter machines of the A and B class, yet there were two Panhards passed between New York and Yonkers, stopped evidently with the same trouble (motor).

The comparison of the performance of steam and gasoline machines on grades was of very great interest, the steam machine overcoming fairly steep grades with considerably more speed than was possible with the gasoline machines, yet if the grades were of any length or of soft material they would almost invariably stall before reaching the top, one or both occupants dismounting to push; on the other hand, the gasoline machines, especially the heavier class, had no trouble in negotiating any hill, but at a somewhat decreased speed.

On the level there was no opportunity for comparing the machines as to speed, as no inclination was noticed on the part of drivers to indulge in very great speed, with the possible exception of one Panhard machine.

At the noon control the street presented the appearance of an immense repair shop, nearly every driver having some repairs to make, much more activity being noted in this respect than should have been necessary after so short a run, a number of machines being late out of this control on this account.

At Nelson Hill a team had been very thoughtfully provided to insure all machines reaching the top, and there was considerable of this work to do, one of the machines requiring such assistance being a Panhard.

Throughout the afternoon the details were much the same as in the morning, although somewhat magnified. The dust was much worse and the accidents more severe. The usual tire troubles, punctures, caused a number of stops, and a broken rear axle laid out another machine of the lighter class.

A visit to the various storage stables after supper showed an unexpected activity on the part of repairmen, some machines being almost dismantled to effect repairs, many continuing their work throughout the night in order to be ready for the next day's run.

This matter of repairs is somewhat surprising. As it must be considered that the machines were in perfect shape before entering such a contest it does not seem

possible that repairs of such an extensive nature should be necessary.

Every one along the way was asking which was the "White Ghost." Every white machine that came into a control was instantly surrounded with a crowd of sight-seers with the query, Is this it?

The country roads were lined throughout the course with people watching for the machines as they flew past.

The Hill Climbing Contest.

The vehicles not entered for this contest, or most of them at least, went up the hill before the official timers and flags were stationed. Their numbers and manner of getting up, as near as could be ascertained, are as follows:

- A 8—Climbed the hill well.
- A 85—Was towed up by a horse team.
- B 70—Dropped passengers in order to get up.
- C 23—Had plenty of power and made a good ascent.
- C 24—Stopped several times, but came through.
- B 85—Dropped passengers, broke the chain and was towed up.
- B 53—Stopped once, but pulled through.
- A 66—Stopped near the bottom and dropped one man, who pushed. The engine operated irregularly and finally stopped. It was started with difficulty. The muffler was disconnected (I think) and the vehicle pulled through.
- C 2—Did fine climbing until near the top, when it stopped, but started immediately under fine power.

After these had passed the timekeepers assumed their post, the flags were stationed and the official hill climbing test began. The results are given in the tables on this page.

The following are some observations on the performance of the various vehicles made by our representative at this trial:

- C 56—Good exhibition of hill climbing.
- A 45—Fine exhibition of hill climbing.
- B 86—Stopped for instant on water bar, but made good showing.
- B 12—Good.
- B 13—Stopped twice, and finally rested for some time to raise steam.
- C 30—Magnificent piece of climbing.
- C 61—Good.
- C 77—Fine.
- B 13—This vehicle, mentioned above, after considerable delay went up the hill.
- C 31—Fine showing.
- B 54—Excellent.
- B 32—Made it very well.
- A 63—Stopped part way up, dropped one man and made it fairly well.
- C 55—Went up the hill like a streak.

This was the most sensational part of the contest. The way was partly blocked by disabled carriages, but Mr. Bishop by a spectacular piece of steering into the gutter ascended the hill at what seemed a terrific pace, and which might have been 9 or 10 miles per hour.

- C 29—Made it, although engine appeared to skip occasionally.
 B 52—Went up with one man out and pushing.
 A 37—Fine showing.
 B 15—Both men out and pushing.
 A 73—Stopped half way up. Two men pushing were necessary to get it to top. Clutch probably weak.
 B 16—With one man out and pushing it made the top.
 A 74—Backed up with crew pushing.
 B 80—Made it.
 A 75—Both men were out and pushing, and the vehicle stopped several times.
 B 81—Made it.
 C 58—One man was pushing; the engine stopped and the crew then pushed it up.
 B 33—Ran into B 34, and brake not holding it backed into the bushes and all but over into the ravine. A strong

Summary of Hill Climbing Contest.

CLASS A.

No.	Make.	Start.	Top.	Elapsed.	Remarks.
11.	White	2.06	2.13.02	7.02	
36.	Locomobile	2.26	2.28.47	2.47	
37.	Locomobile	1.52	1.56.10	4.10	
38.	Locomobile	2.15.30	2.19.19	3.49	
45.	Grout	1.33	1.35.45	2.45	Winner Class A
47.	Locomobile	2.22	2.26.02	4.02	
63.	Duryea	2.32	2.35.16	3.16	
66.	Ward Leonard	1.24.10	1.34.50	10.40	
72.	De Dion-Bouton	1.48	1.59.58	11.58	
73.	De Dion-Bouton	1.54	1.58.59	4.59	
75.	De Dion-Bouton	1.53	2.02.40	9.40	

CLASS B.

No.	Make.	Start.	Top.	Elapsed.	Remarks.
4.	Haynes-Apperson	2.20	2.24.35	4.35	
5.	Haynes-Apperson	2.33	2.38.41	5.41	
12.	White	1.34	1.40.25	6.25	
13.	White	1.36	1.44.15	8.15	
14.	White	2.04	2.12.33	8.33	
15.	Overman	1.51.10	1.58.39	7.29	
16.	Overman	1.55	2.01.10	5.10	
20.	A. B. C.	3.09	3.20.41	11.41	
21.	A. B. C.	2.40	2.48.09	8.09	
27.	Autocar	2.24	2.30.12	6.12	
28.	Lane	1.31	1.36	5	
32.	Winton	1.44	1.48.38	4.38	
33.	Winton	2.16	2.55.41	39.41	Towed
34.	St. Louis	2.02	2.35	33	Towed
39.	Locomobile	2.52	2.55.55	3.55	
40.	Locomobile	2.03	2.13.18	11.18	One passenger
41.	Locomobile	3.57	No time taken		
48.	Autocar	2.23	2.26.17	3.17	Winner Class B
50.	Geneva	3.39	3.45	6	
52.	Searchmont	1.50	1.56.06	6.06	
54.	Stearns S. C. Co.	1.43	1.47.02	4.02	
76.	Reading	2.43	2.53.25	10.25	
78.	E. V. Co.	2.27	2.32.31	5.31	
80.	E. V. Co.	1.57	2.02.45	5.45	
81.	U. S. Long Distance	1.59	2.05.21	6.21	
86.	A. B. C. (Gasoline)	1.35	1.39.50	4.50	

CLASS C.

No.	Make.	Start.	Top.	Elapsed.	Remarks.
1.	Robinson	2.41	3.02	11	Towed
2.	Panhard	1.23	1.39.40	16.40	Towed
18.	Holyoke	2.37	2.44	7	
30.	Gasmobile	1.37	1.45.45	8.45	
31.	Gasmobile	1.41.30	1.46.52	6.22	
29.	Gasmobile	1.45	1.59.42	14.42	
55.	Panhard	1.47	1.49.13	2.13	Winner Class C
56.	Packard	1.32	1.35.50	3.50	
58.	Gasmobile	2.01	2.10.12	9.12	
59.	E. V. Co.	2.35	2.38.44	3.44	
61.	Packard	1.38	1.44.20	6.20	
65.	Century	2.39	2.44.50	5.50	
77.	Gasmobile	1.38.50	1.44.52	6.02	
79.	Packard	2.29	2.37.15	8.15	

team of horses was required to get it into the road again.

A 38—Came up finely.

E 17—With both men pushing it reached the top.

B 4—Good climber.

A 47—Good climber.

B 48—Good climber.

B 27—Dropped both men, who pushed it to the summit. The clutch was slipping apparently.

A 36—Fine hill climbing.

B 78—Good hill climbing.

C 79—Tacked up, but a good, steady climber.

A 63—(Second trial allowed.) Made it all right.

B 5—Made good showing.

C 59—Good showing.

C 18—Good, steady climbing.

C 65—Good climbing.

B 20—Stopped half way up, waited for steam, and went up in good shape.

C 1—Towed up by horses.

B 43—Good climbing with one passenger aboard.

B 76—Almost stopped, but made it.

C 44—Made it (terribly noisy).

B 39—Good climber.

C 69—Three men were pushing, but it stopped at last and was towed over the peak of the hill by a horse team.

Mobile Rapid Transit—Stopped a number of times for steam; the brake doesn't hold well for backing; it dropped all but one man and had to be pushed up.

B 22—Was forced to stop on the worst part of the hill by delay of the preceding vehicle (Mobile Rapid Transit); climbed well.

B 68—Climbed well.

B 20—Good piece of climbing.

A 82—Engine stopped on account of a bent valve rod; had to be towed up.

B 50—Stopped on hill for steam.

There was a remarkably smoky exhaust on the gasoline vehicles, due, probably, to oil flowing into the cylinders from the crank case on account of excessive inclination.

A good many of the vehicles had to be triggered with stones when they stopped on the hills, as their brakes would not hold them from running backward.

The steam vehicles impressed the crowd, as they could generally make the hill by waiting for steam to rise.

Several steam and gasoline vehicles cut off their mufflers for extra power, to judge by the noise. On the whole there was very little trouble with the gasoline engines and little stopping of the engines themselves; quite a good deal of trouble, however, with the transmitting devices, apparently. Weak clutches seemed to be common.

David W. Bishop (Panhard) won the cup presented by A. R. Shattuck for vehicles in Class C. William Morgan (Auto-car) won the cup presented by Harlan W. Whipple for vehicles in Class B and B. L. Wright (Grout) the cup presented by W.

E. Scarritt for vehicles in Class A. Two De Dion motorettes climbed the hill backward, the reverse gear being probably the lowest.

The Locomobile Company state that they have entered a formal protest with the committee in charge of the contest regarding the hill climbing contest decisions for Class A. They claim that vehicle A 36, a style No. 2 "locomobile," containing a 14-inch boiler and driven by J. Murray Page, was two seconds behind the best time and that the "locomobile" should have been entitled to the first place, as the vehicle was delayed on the hill and caused to stop, the road being blocked by a gasoline carriage. From twenty to forty seconds were lost by this delay. The protest has not yet been acted on.

On 42 machines, taken at random, from which data were collected, 20 employed ordinary single tube tires, 16 detachable or double tube tires, and 6 the so-called non-collapsible type. Every machine carried one extra, and most of them carried two. This is a growing proportion of double tube tires, I think.

The Second Stage

On Tuesday morning the weather was again fine and the roads were varying—good, bad and treacherous. A railroad crossing at the foot of a steep hill should have been guarded.

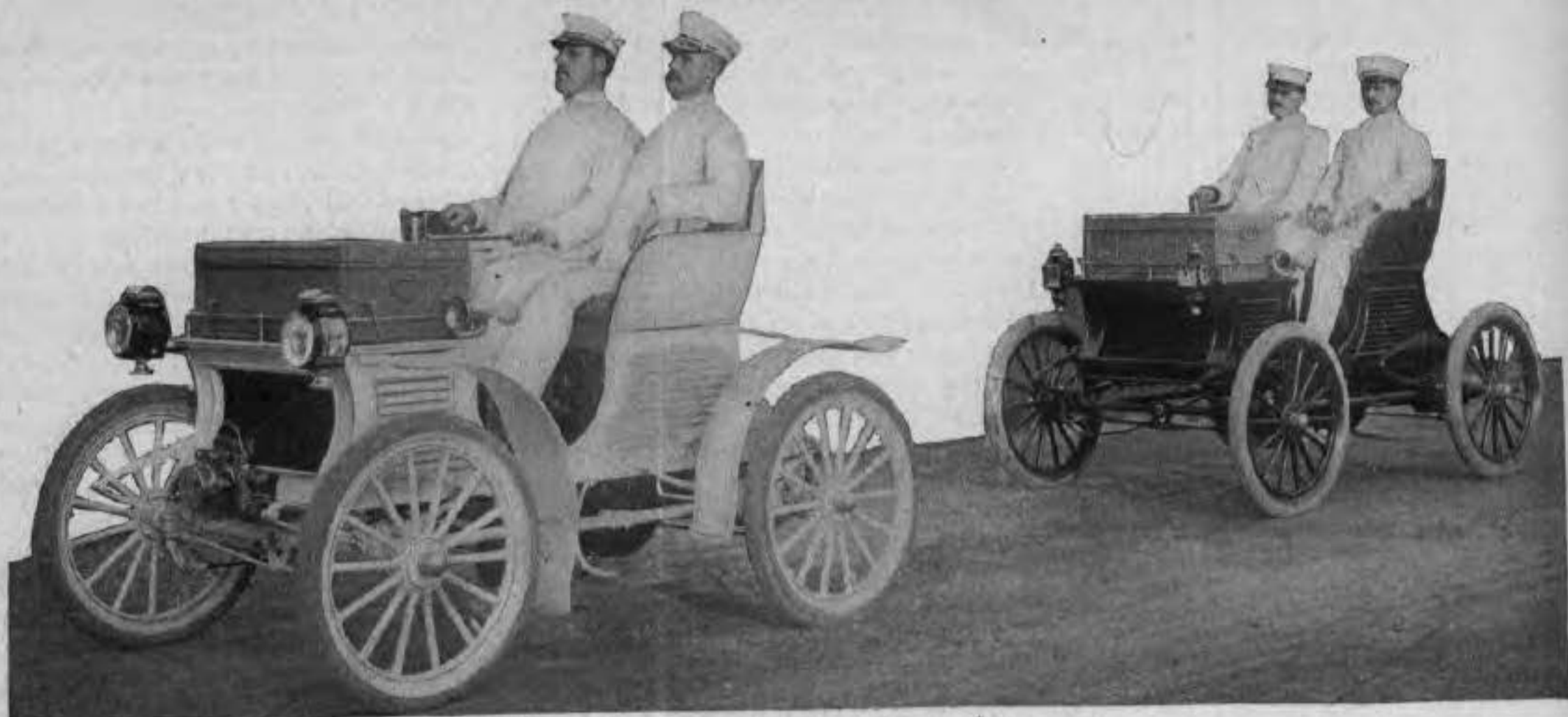
The following is a list of the arrivals at Hudson (noon control):

B 5 at 10:45; B 12 (8:02-10:20) once re-

plenished its water supply en route; B 22 (8:15½-10:32) stopped about five minutes to oil a wheel; it picked up a strap with nails in it, but the tire did not lose air (perpetrator's idea was to injure tires); C 59 started at 8:40 and had a two hours and ten minutes run; B 14 (time not given); A 11 (8:10-10:35) made one stop for water; C 79 (8:15-10:48) had no stop; B 32 (8:14-10:45) had no stop; B 28 (8:23-11:05); B 34 started at 8:20 and had no stop; C 31 (8:16-10:57) changed one igniter plug; A 45 (8:18-11:21) made one stop for water; A 74 (8:17-11:05) burst the inner tube of one back tire and lost half hour replacing it; B 81 (8:05½-10:59) suffered from leakage of water, due to loose unions; B 26 (8-10:45) had no stop; B 80 (8:02-10:22), 10:45 control time, no stop made; C 61 (8:23½-11:13), some heating of bearing; B 52 (8:09-11:21) had no stop; B 35 (8:08½-10:29), 10:45 control time, no trouble, but stopped for water; B 70 (8:04-10:23), 10:45 control time, not even a stop for water; A 63 (8:05-10:30), 10:45 control time, one stop on account of hot bearing of the crank shaft; this bearing was heating right along; B 85 (8:25-10:45) had no stop; at noontime the ball bearings of the differential required adjustment; A 37 (8:03-10:45) made two stops for water; B 54 (8:25½-11:05); B 36 (8:24-11:34) stopped for water once and for gasoline twice; B 80 (8:21-10:45) stopped to inflate the right front and the left hind wheel tire and took fifteen minutes doing it; C 56



ALEXANDER FISCHER, LEADER OF THE "GASMOBILES."



THE "SEARCHMONTS" IN TOURING ARRAY.

(8:11-10:45) made no stop; one hind tire was cut, but no air was lost.

Vehicles that reached Empire Curling Rink by 3:45 p. m.:

B 26, B 32, C 55, C 59, B 13, A 37, B 86, B 28, A 11, B 14, B 4, B 5, B 22, C 29, C 31, B 12, B 35, A 63, B 54, C 21, C 1, B 34, B 41, B 27, B 81, A 8, A 7.

Between 3:45 and 4 p. m.:

A 45 and C 77.

Between 4:15 and 4:30 p. m.:

C 44, B 43, C 58, B 40, B 78, A 38 (bent eccentric strap). E 17 arrived at 4:45, B 48 (no trouble) at 5 and B 68 at about the

same time. B 33 broke an eccentric outside of Poughkeepsie, but was not delayed. The eccentric drives the pump that pumps the gasoline. It arrived at Albany with the steering mechanism well shaken up and with an excessive amount of lost motion and all lanterns broken, having skidded on car track and hit a car.

B 52 arrived by 4:45 at the rink; it had trouble with a valve in the carburetor on account of foreign matter in the gasoline; the valve was held down during the run in the afternoon, but good speed could not well be maintained under these conditions.

Some 2 or 3 miles from the rink (at Hill & McCullough's stable) the following vehicles were found: A 36, A 75, B 85, A 82, B 21, B 15, B 78, C 79, C 23, C 56, C 24, B 20, B 80, A 72.

There was no repairing of any consequence in evidence. The machines in many cases were not even cleaned on arrival, nor afterward. Many operators had no extra tires with them, such as B 4 and B 5, for instance. B 5 uses non-puncturable tires. A 7 and A 8, with two passengers and only a 2½ horse power, made good time that day.

A 75 outside of Red Hook was asked to



D. W. BISHOP RUSHING NELSON HILL IN HIS PANHARD RACER.

overtake a steam carriage by the latter's occupants. The passing occurred on a bridge, and to avoid running wild the steam vehicle A 75 struck the bridge, which gave way. The right rear wheel was bent back and the machine ran into the ditch. The company's repair wagon brought a new wheel, and A 75 proceeded to Albany, where the brakes (band type, leather faced) were complained of.

B 16 coasted down a steep hill at a very high speed, struck a pocket in the road, was thrown into the air, and completely turned over. Mr. Rianhart had several teeth knocked out and his partner was bruised. Machine a total wreck.

Mr. Bishop (C 55) arrived at all controls ahead of the rest.

It is not possible to get the time of departure from the noon control station and the arrival at the night control station, because the operators leave their machines soon after arrival, and then again there are so many stables.

It appears that no machine was obliged to retire on account of tire troubles, but the steel rims of practically all the single tube tires are bulged out at their peripheries by the stones that they strike. The rims used on clincher tires are free of this tendency. No breakage of chains has come to my notice, but tank leakages and ignition troubles seem to be multiplying, particularly when the former are soldered and the latter not positive in action.

Rosin was put on the leather lining of the brakes of A 75 to increase friction.

Three-wheeled machines make the most dust.

It is not possible to average 14 miles an hour through this hilly country with stock machines of moderate power unless the machine is forced at all times. The run for these vehicles resolves itself into a race all the way. That is the opinion of many. The writer shares that opinion. The country is too hilly and the roads too poor for such an average.

To-day some three or four dogs were killed; no vehicle was deflected by them, however.

Apparently errors have been removed at important junctions. Two miles out of Hudson this afternoon A 74 ran into the ditch, having struck a gully with great force. Two wheels were flattened and the occupants hurled to the ground; both were bruised. The repair wagon of the De Dions arighted matters and the carriage reached Albany at a late hour. It was said that the vehicle was turned over, but I could not get the statement confirmed.

Half a mile before reaching Red Hook, 22.9 miles from Poughkeepsie, C. R. Greuter noticed that his steering gear lever worked badly. On investigation as to the cause he found that the front axle was broken completely in two close to the centre, the carriage being held up only by the truss rod. The axle had cracked in an accident the day before, and the subsequent

THE HORSELESS AGE

jars had broken it off. He then ran slowly and carefully to Red Hook, but as the blacksmith there did not have any steel suitable for repairing, he ran down to the boat landing at Barrymore and shipped for Albany, to have it repaired there at night with the intention of re-entering the race there on Wednesday. Mr. Greuter arrived at Albany shortly after 6 o'clock and got a blacksmith to work on the broken axle; it was estimated to be nearly an all night's job. C. J. Field, in a De Dion motorette, went off the edge of a bridge; he said that another vehicle was in the way and forced him very near the edge and the ends of the planks being rotten gave way. The carriage landed right side up, and after some straightening out of parts was run on to Albany, arriving there a little after 6 o'clock.

John Jacob Astor in a Gasmobile had an impromptu race with a Haynes-Apperson, with Mr. Apperson in. The race was about evenly divided, first one gaining and then the other, until the passenger in the Gasmobile lost his cap, and the vehicle was stopped to recover it. Sixty-five vehicles had arrived at Albany within the time limit. A. L. Riker is among the missing, but it is said he is on the way.

The White steam machine took off a trolley car fender in Albany, but did not injure itself.

Another representative writes:

The road throughout the second day of the endurance contest was, with the possible exception of the dust, of a decidedly different character from that previously gone over. There were fewer stretches of straight road, scarcely any level places, and the hills were long, rough and stony, and numerous unexpected and sharp curves.

This, together with the fact that the machines were by this time beginning to get settled into classes regarding speed, etc., led to some fast driving, and a number of accidents, more or less severe, were the results.

At the noon control there were no less than thirty machines in line before it was time to open, and the operators were warned against a continuation of the rapid driving. Yet with two racing machines leading the way there seemed to be an incentive to speed, which could not be resisted.

At the noon control there did not seem to be the amount of repairing, which was noticed on the first day. However, at the night control (Albany), with a knowledge of what is expected for the next day's run, the repair business is redoubled, the repair parts carried in some cases being entirely out of proportion to the machine.

It is as yet impossible to draw any conclusion or indeed to predict the outcome of the test, the light machines, especially the steam carriages, seem to be keeping along exceedingly well, considering the fact that they are not generally considered good for long distance work. There are,

however, a considerably less number of machines at the start now than at New York.

A light rain fell during the afternoon, not sufficient to lay the dust, but enough to make driving a very disagreeable job while it lasted.

On entering Albany, by some mistake, about seven machines, the first to reach the city, were conducted up the hill leading to the State House, affording another hill climbing contest in which the machines had a simultaneous start, but which was not appreciated by the drivers when they found they must retrace their course to reach the control.

FROM OUR STEAM EXPERT.

Joseph W. Jones, the steam expert of THE HORSELESS AGE, who is accompanying one of the White carriages, says: "We left Poughkeepsie this morning at 8:15, our carriage occupying a position about fifteenth from the last of the line, and as the weather looked threatening all the morning I had provided myself with a rubber coat before starting, but by 8:30 the sun commenced to come out, and the weather remained bright till after leaving Hudson, when it commenced to rain, and continued until about 5 o'clock.

"Leaving Poughkeepsie we would see the gasoline machines every four or five blocks drawn off to the side of the road adjusting a sparking plug or making electrical connections which had jerked loose, or replacing a pin. Once in a while a gasoline carriage would dash past us, only to be overtaken a few miles further on while they were stopped to make adjustments or repairs.

"About 2 miles out from Poughkeepsie, at the foot of a slight down grade, with some very deep 'thank you, ma'ams,' toward the end, we saw a Victor carriage upside down in a ditch about 10 feet deep; the front pointed in the direction from which it had come, and the occupants of the carriage stood by the side of the road, covered with dust. J. Rianhart, of the Overman Company, and his expert were the unlucky parties. Mr. Rianhart was severely bruised and cut about the face. We stopped our carriage and took him with us to a doctor about 2 miles beyond. I regretted very much that I could not have waited and seen whether there was anything more serious the matter, as the shock must have been something terrific, as I understand the wagon was traveling at a high velocity when it struck the depression in the road, and jumped in the air several feet and could not be controlled. This Victor machine which met with the accident was setting the pace for the steam machines on the way up to Poughkeepsie, and was a remarkable steamer. The steam was escaping from the safety valve at the top of some of the steepest hills we climbed. On the run to Peekskill one of the forward knuckle joints was badly bent, which threw

the wheel way out of line, and I am under the impression that this had something to do with the vehicle being thrown in the ditch.

"About halfway to Hudson (the noon control) we passed the 5 horse power motorette driven by C. J. Field, with two wheels smashed, a front and a rear.

"Mr. Bishop's 30 horse power Panhard keeps so far in the lead that I only see it at controls. Also Mr. Shattuck's 12 horse power Panhard is only seen at controls.

"To-day we lunched at Hudson, the noon control. Leaving Hudson about one-quarter mile out we passed the 8 horse power motorette operated by K. A. Skinner, with wheel broken. These expert operators in their zeal to sprint have apparently lost their chance to continue in the run, as both vehicles appear to be beyond repair.

"Roads from Hudson to Albany are rather rough.

"The White carriage ran very smoothly all day and seemed to be working better than usual. Our water tank has a capacity of 20 gallons, and we filled it once between each control from New York and always had half a tankful on reaching the control, which was averaging less than a gallon a mile. These carriages have caused considerable favorable comment from members of the run. We came into Albany to-night in good style and mounted the long Main street hill to our quarters at good speed.

"One of the Toledo carriages has burst three detachable tires on the run so far.

"One of the White carriages got dirt in the water pump and bent the connecting link so that it would not feed and had to be kept up by hand pumping to the noon control. A good deal of the water used for steam from wayside springs and pumps was very dirty, and it remains to be seen what effect this will have on the small boilers of the fire and water tube type."

A. L. Clough, who is in advance of the procession, sends in some impressions of the running of the machines, gained at the roadside near Albany:

SOMETHING ABOUT NOISE.

We expect the French machines to be very noisy and wasteful of power. In direct contrast to the American machines the 12 horse power upright Panhard and the De Dions seem more than ever to be shaking themselves to pieces. This characteristic, too, is common to their American imitators using high speed motors; for example, Pierce runabout and Searchmont, both of which embody the bad points of French models. It would not be surprising if this test finally demonstrated the superiority of the American medium speed motor over the little, vertical popping affairs, which are wonderful in the intemperance of their speed and power output. It will be interesting to see if these motors of the De Dion type last through to Buffalo in good condition.

The Packard is about as smooth a running a rig as any. It impresses one as wasting little power in transmission.

This question of smooth running is to a considerable extent a question of adjust-

THE HORSELESS AGE

ment and care of the individual. Thus there is one Packard, C 61, which I placed upon my "noisy list," while all the rest are on the "quiet list." It is most likely a case of lack of care.

These gasoline motor vehicles show a great advance in point of smoothness of operation over those of two years ago, although *some allowance* must be made to cover one having become *used* to the noise of their operation. The transmission losses are less, and they are more closely encased as well. Noisy contact sparking devices have been improved, or the contact spark adopted. The noise of the exhaust, not indicating mechanical inefficiency, is another matter and less serious.

SOME NECESSARY REPAIRS.

A visit to the "Curling Rink" Tuesday evening showed considerable work being done on the machines.

B 52 Searchmont undergoing general overhauling. Sprocket had come loose. Valves were being ground in. Fixing brake. New battery, etc.

B 48 Autocar. Springs were being blocked up, as they are too light for these rough roads.

A 38 Locomobile Runabout. Resetting valves and apparently overhauling.

B 40 Locomobile Touring Car. Fixing pump and piping.

C 77 Gasmobile. Putting on new tire. Chain off for some reason.

B 41. Adjusting chain.

A 47 Locomobile Runabout. Putting on new chain adjuster.

C 29 Gasmobile. Couldn't tell what was the matter.

A visit to another storage stable showed a De Dion, A 74, which had broken two wheels and had a bent steering gear.

B 15 or 16 Overman met with an accident, and a new boiler was being put in.

C 61 Packard had hot crank pin and wore to bad play.

C 56, Packard, was pulled to pieces. New battery being put in. Knox vehicle was forced into gutter and capsized by a gasmobile without serious damage.

The official time had not been given out, except for the hill climbing contest.

Bishop made Poughkeepsie to Hudson, 43 miles, in 1:48, and B. B. McGregor, with 12 horse power Winton, was second to Bishop.

With reference to Nelson Hill I might add none of the motor bikes attempted it.

The arrangements here seemed to be faulty. Signal flags were used, red for danger and white for all clear, but each carriage was not allowed to clear the hill before others were started. As the road was very narrow (regular single track country width) there was much embarrassment imposed upon following carriages. In several instances they had to stop on the worst part of the hill on account of others ahead of them which were stalled. This was specially hard on the gasoline rigs, as it forced them to start from a state of rest under the worst possible conditions. With the steam carriages it was sometimes a great assistance, as it enabled them to get

back their steam. Two hundred and seventy-five pounds was the highest pressure observed in any steam rig, and the safety valve was blowing.

ARRIVALS AT ALBANY.

Order.	Time of Day.	Class and Number.
1.....	3.15	B 70
2.....	3.15	C 55
3.....	3.15	B 26
4.....	3.15	C 59
5.....	3.15	C 23
6.....	3.15	C 79
7.....	3.15	C 24
8.....	3.15	A 63
9.....	3.15	B 5
10.....	3.15	B 86
11.....	3.15	B 13
12.....	3.15	B 4
13.....	3.15	A 37
14.....	3.15	C 79
15.....	3.15	C 2
16.....	3.18	A 8
17.....	3.18	A 11
18.....	3.18	C 31
19.....	3.18	C 56
20.....	3.19	B 14
21.....	3.19	B 28
22.....	3.19	B 54
23.....	3.19	B 22
24.....	3.19	A 7
25.....	3.20	B 81
26.....	3.20	A 72
27.....	3.29	C 1
28.....	3.29	B 34
29.....	3.29	B 35
30.....	3.31	A 82
31.....	3.31	B 41
32.....	3.31	B 27
33.....	3.39	A 36
34.....	3.39	A 38
35.....	3.41	A 45
36.....	3.44	C 77
37.....	3.44	C 61
38.....	3.49	D 64
39.....	3.55	A 47
40.....	4.08	C 44
41.....	4.10	B 43
42.....	4.11	B 85
43.....	4.12	B 78
44.....	4.15	C 58
45.....	4.15	B 40
46.....	4.27	B 80
47.....	4.27	E 17
48.....	4.28	B 52
49.....	4.35	B 33
50.....	4.37	D 9
51.....	4.44	B 68
52.....	4.47	B 48
53.....	4.52	B 39
54.....	5.14	B 21
55.....	5.46	B 20
56.....	6.21	B 15
57.....	6.44	A 75
58.....	7.09	B 12
59.....	8.06	C 65
60.....	8.10	C 30
61.....	8.18	A 74
62.....	8.19	B 76
63.....	8.52	D 88
64.....	8.53	D 87

FONDA, N. Y., Wednesday, 2:12 P. M.—
Raining hard. Carriages skidding badly.