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the trench, follow the wall for a long distance, and halt until night, when we are placed in a barely finished section within two hundred yards of a Russian battery.”

Later he writes: “All day long I have amused myself in watching the destruction of the Russian guns by our shells. I shuddered a little on seeing dismembered corpses tossed into the air, but this will not effect me when I return to the trenches.” This inhumation at intervals of three days is “nothing but dangerous drudgery.” It was most tantalizing to see from the muddy trenches the Malakoff tower, which it would be so “amusing” to take by assault, but it was necessary to hide and dig in the earth until the artillery should have completed its task. What humiliation for a Zouave! Occasionally there is a note of ill humor: “At present we are doing absolutely nothing, except to go to the trenches, mount guard and dig. This sort of work is killing us. In one month the regiment has lost 700 men through death, wounds and fatigue. It is hard to have an average of 50 men *hors de combat* for each trench. A fine regiment like ours is being destroyed in a very foolish manner. To be killed in a trench, what a glorious fate!”

It was maddening to see, so near, the forts which the Zouaves would annihilate so easily if they were only “let go.” “I thought I was coming to a grand festival, but I have been doing siege duty for four months. The impetuous young lieutenant condemns as incompetent, almost as criminal, the artillery and engineer officers responsible for the delay.”

It was fated that he should not take part in the “grand festival.” A week before the assault that he had longed for was made, he was struck by a shell splinter and died without having had the good fortune to fight “with bared heart, face to face with the enemy,” as he had so often dreamed of doing.

War Capacity of United States Railways

By Dr. Robert Grimshaw

TWO salient features enter into railway capacity for war: first, rolling stock; second, track and yard limitations in a given theater of operations. The latter, being dependent upon the local conditions of any given theater of operations, will not be discussed here.

Concerning rolling stock, the equipment of our railways is ample for the assembling of units at their rendezvous or home stations, and for assembling divisions at their places of concentration; this without overtaxing the resources of our various commercial lines.

Concerning the concentration of divisions into field armies for operations in any possible theater of operations on our coasts or borders, by simultaneous large scale movements, the problem becomes more complicated, but, on the basis of our present war plan strength, still remains within the “capacity” of our commercial lines.

Tables I, II, and III, herewith, present data for reference in connection with the capacity of our railways for movements of troops.

Paragraph 393, Field Service Regulations, United States Army, 1914, gives the details of entraining; and reference thereto will show that the weights of equipments carried by infantry soldiers, etc., are not factors used in arranging railway movements of troops. Arms and equipments carried by individuals are customarily taken with them upon the cars; while wagons, animals, ammunition, rations and other impedimenta, usually carried by wagons when on the march, are loaded prior to the entraining of the men. The following factors are used in determining car and train section capacities:

(1) A train section usually consists, exclusive of engine and tender, of not more than 17 cars, total weight not over 700 tons; the weight of loaded cars being taken as: flat 25, box 27, stock 25, passenger and baggage 50, Pullman 55.

(2) Car capacities: tourist sleepers, 42 men.

Coaches, 45 men (3 men to each two seats); stock cars, 20 to 22 animals,

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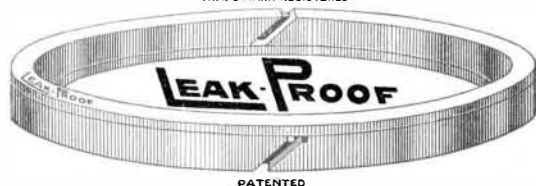
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- Box freight cars, 20 to 30 tons, dependent on bulk.
Flat cars:
(a) One gun, two caissons, field artillery.
(b) Three caissons, field artillery.
(c) Two caissons and one battery or store wagon, field artillery.
(d) One gun, one caisson, heavy artillery.
(e) Two guns, heavy artillery.

- (f) Three caissons, heavy artillery.
(g) Three wagons, field ammunition or supply; or three ambulances—set up.
(h) One ponton on its wagon.
(i) Forty-eight wagon bodies, knocked down; or thirty-six if tunnels are met.
(k) Six ambulances, knocked down, tops not removed.
(l) Thirty tons freight.

The following table shows the cars required per unit of organization:

TABLE I.

	Personnel, etc.				Cars Required.						
	Men	Animals	Vehicles	Guns (vehicles)	Pullman or Tourist	Coaches	Baggage (kitchen)	Box	Stock	Flat	Total Cars
Infantry Regiment.....	1,915	171	22	..	5	43	6	5	11	8	78
Cavalry Regiment.....	1,308	1,435	26	..	8	29	9	8	67	9	130
Artillery Regiment (field)...	1,198	1,154	104	24	9	23	9	9	56	45	151
Artillery Regiment (horse)...	1,198	1,568	107	24	10	24	10	9	78	46	177
Artillery Regiment (heavy)...	1,286	1,346	107	24	10	27	10	9	68	54	178
Artillery Reg't (mountain)...	1,165	1,186	7	23	8	14	60	..	112
Battalion Engineers (Inf.)...	514	165	12	..	2	12	2	4	8	4	32
Battalion Engineers (Cav.)...	288	370	11	..	2	7	2	4	19	4	38
Battalion Signal Corps (Inf.)...	176	202	15	..	2	4	2	2	10	5	25
Battalion Signal Corps (Cav.)...	176	204	11	..	2	4	2	2	10	4	24
Divisional Trains (Inf.).....	1,008	1,936	387	..	11	16	11	36	97	18	189
Divisional Trains (Cav.).....	609	1,313	161	..	7	10	7	17	65	10	116

The above table shows the cars normally required by the different units of a large force, such as a field army, excepting ponton battalions, aero squadrons, and the headquarters of brigades and divisions.

In compiling the table, the divisional trains of both the cavalry and infantry divisions were assumed "knocked down," all other vehicles being shipped "set up"; and a reasonable regard was given to keeping units together in convenient train sections, without separating the troops of any unit from their animals and material.

Can our roads handle such masses of men and material? We can judge this from Table II, which shows the rolling stock of the principal railway systems of the United States east of the Mississippi River (Poor's Railway Manual, 1914), and from Table III, a memorandum of the cars required for an American field army, composed of units in normal proportions.

All the foregoing data are official, and were furnished by an officer of the regular Army.

TABLE II.

	Locomotives.	Cars.					
		Passenger.	Baggage	Box	Stock	Flat	Total
Penn'a R. R. System.....	7,033	4,277	706	84,576	4,229	5,419	99,207
N. Y. C. R. R. System.....	4,413	3,723	..	67,863	2,106	10,871	84,563
So. Ry. & N. & W.....	1,501	338	223	18,049	2,328	2,878	24,058
Seaboard & Atlantic Coast Lines.	1,162	497	249	31,374	158	8,252	40,530
B. & O. and C. & O.....	2,579	834	317	40,127	400	2,943	44,621
I. C., C. N. O. & T. P.....	1,700	581	193	32,090	1,047	3,369	37,280
Totals.....	18,388	6,527	1,698	274,070	10,268	33,732	330,259
		3,955					

TABLE III.

	Passenger	Baggage	Box	Stock	Flat	Total
27 Regiments Infantry.....	1,296	162	135	297	216	2,106
9 Regiments Cavalry.....	333	81	72	603	81	1,170
6 Regiments Field Artillery.....	192	54	54	336	270	906
1 Regiment Heavy Artillery.....	37	10	9	68	54	178
1 Regiment Horse Artillery.....	34	10	9	78	46	177
1 Regiment Mountain Artillery.....	30	8	14	60	..	112
4 Battalions Engineers (Inf. Div., etc.)...	56	8	16	32	16	128
1 Battalion Engineers (Cavalry).....	9	2	4	19	4	38
4 Battalions Signal Troops (Inf. etc.)...	24	8	8	40	20	100
1 Battalion Signal Troops (Cavalry).....	6	2	2	10	4	24
3 Divisional Trains (Infantry).....	81	33	108	291	54	567
1 Divisional Train (Cavalry).....	17	7	17	65	10	116
Totals, 363 Locomotives and.....	2,115	385	448	1,899	775	5,622

Statistics of Baseball

By Arthur Macdonald

If everything which takes place in the game were recorded, we might have proper statistics of baseball. A few data in addition to the official records have been gathered.

It is estimated that approximately 20 per cent of balls batted fair result in safe hits.

Of 10,074 batted balls, 3,602 or 20 per cent were fly balls; 5,171 or 51 per cent were grounders; 344 or 3 per cent bunts; and 957 or 9 per cent were line drives. Out of these 10,074 batted balls, 2,067 or 20 per cent were scored as base hits. Of the 3,602 fly balls, 741 or 20 per cent fell safe, and only 18 or 4/10ths per cent were muffed, showing practically that the major league fielders catch almost every ball they can reach.

Of the 5,171 ground balls, 424 or 8 per cent were scored hits. Of the 344 bunts, 155 or 45 per cent were safe, and of these 155, 114 or 74 per cent were handled by the fielders. Out of the 957 line drives, 741 or 77 per cent were safe, showing this to be the best kind of ball to knock.

In a number of games (not given), 72 plain hit and run signals were detected; 11 of these attempts, or 15 per cent, resulted in clean hits, 8 of which, or 11 per cent, enabled the runners to take extra bases; 27 of the attempts, or 40 per cent, advanced runners at the expense of retiring the batter at first base; 7 or 9 per cent resulted in batter striking out, and 3 of these strike-outs or 4 per cent resulted in the runner being doubled with the batter, while 2 of the strike-outs or 3 per