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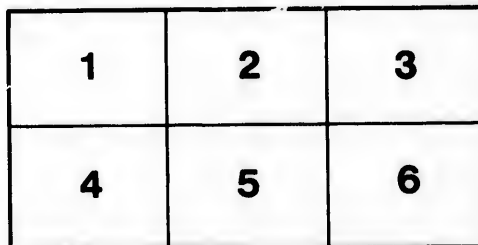
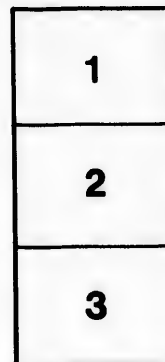
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MILITARY  
READY RECKONER

BY

WILLIAM COOKE,

*Drill Sergeant, 1st Battalion Grenadier Regiment of Foot Guards.*

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# MILITARY READY RECKONER,

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WILLIAM COOKE,

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# A FEW WORDS

TO THOSE WHO MAY DESIRE TO

## CULTIVATE THE ART OF TRAINING A SOLDIER.

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To become a practical Instructor of Drill, the individual commencing a course of training should carefully avoid rambling through the Drill Book, admiring the beautiful plates and diagrams, which can only tend to distract and draw the attention of the new beginner from that part of the book which alone claims his attention.

First, take care that you carefully read over that part which you are about to instruct in. Theory and Practice must here go hand in hand, bearing in mind that your reading should not exceed one or at most two pages a day; for the simple reason that you cannot learn a man practically more in one day. The extent of your reading at any one time being so very limited, you are thereby enabled to impart instruction to your pupils with confidence, at the same time by such a slow mode of progression you are practically improving yourself, and again by such short lessons you are enabled to repeat the exact words laid down in the Drill Book, which should always be done by a new beginner.

Once thoroughly grounded in everything connected with the training of a Soldier, you must avoid those unnecessary long

explanations which are only necessary for the Instruction of the Instructor.

From practice the Instructor will soon be enabled to adopt his own mode of communicating his instructions. Explanations should be given in the plainest language, uttered in a clear moderate tone of voice, so as to come within the capacity of all.

The division of time is a most important part of a Soldier's training, for the simple reason, that Soldiers are not brought together to act individually, or independently of each other. No! They are brought together to act as a Machine complete, having its parts adapted to each other, ready to act under the direction of one common centre; by such means Soldiers are taught where their great safety and ultimate success lies in the hour of need; and where individual action would only bring ruin upon all. Thus men are not to take advantage of circumstances either in acting individually or as a body.

By careful observation the Instructor should as soon as possible understand the individual intelligence and capacity of his men for receiving instructions.

It may appear strange, however experience proves that it is so: that the same mode of communicating instruction cannot be applied with success to any two individuals undergoing the same course of training; the capacity of each apparently requires a different mode of explanation or illustration. Such explanation or modes of illustration being carefully studied and exercised by the Instructor, he is thereby enabled to drill any number of men with a progressive uniformity, as if the standard of individual intelligence was equal at the commencement.

And above all things the Instructor should never resort to coarse language, as such conduct on the part of an Instructor can only point to his own incapacity to communicate instruction.

When explanation fails to produce the desired result illustration

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must be employed, so that all may feel and understand their way with equal advantage.

And again the Instructors should never tell a man that he is stupid, much less think so. No! the Instructor should employ such a mode of reasoning as will make up for the apparent want of intelligence in the man. By such means you avoid pointing out one man as inferior to the other in point of intelligence.

All men should be made to feel equally worthy of the Instructor's attention; thus by a plain mode of reasoning you bring the awkward man to a sense of his own weak points which always acts as a powerful stimulant towards greater exertion, thereby enabling a slow but sure recruit to stand on an equal footing with his more active comrade.

The Instructor having a thorough knowledge of Company drill stands in the same position as an individual who has acquired a thorough knowledge of the first Four Rules of Arithmetic, so that in drill as in Arithmetic the drilled Soldier is enabled by a combination of those Rules learned in Company drill to conform to any movement which circumstances may require, and a misapplication of those Rules to circumstances which may require a different combination to effect the object aimed at, becomes as signal a failure as in trying to solve an Arithmetical question by the combination of three Rules where two would suffice.

But bear in mind that in Military Operations, victory or defeat, life or death, depends upon the result.

However, notwithstanding an error in judgment on the part of a Commander, well trained Troops know that their only safety lies in boldly and resolutely standing together.

Common sense must tell every man that nothing can be more helpless or less able to exercise its own power than a mass of men acting at cross purposes with each other.

A thoroughly drilled Soldier should understand and does understand almost the nature and object of every movement; where such is not the case, that all important element amongst a body of men must be wanting, a spirit of prompt and ready obedience to all commands. And let no man fancy himself competent to train a Soldier from the mere fact of his being well read in Military Works; reading of course is an indispensable part of an Instructor's training, for, by reading he adds the experience of others to that of his own; however it lies with the Instructor in the exercise of his own good sense how far he allows himself to be guided by the experience of others in discharging the duties of his office, and as I remarked before, do not look upon the apparently dull recruit as unworthy of your best attention, for recollect that it is by successfully training such men that you show yourself competent to instruct, for the simple reason, that the more active or apt Recruit calls forth no particular exercise of judgment on the part of an Instructor.

A good temper is an indispensable qualification in an Instructor. Respect a man's feelings as you would your own, at the same time be firm yet moderate and reasonable in all things which can never fail to produce the desired result,—a good and well trained soldier. And in conclusion allow me to remark that no Instructor can ever exceed that standard of perfection where further information or instruction is no longer required.

No Instructor should ever feel himself beyond the province of correction, though corrected by individuals of less experience. It's by such correction that you can ever hope to attain to anything like a standard of perfection in the art of training a Soldier.

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*A few Plain Rules by which the number of men in a Battalion may be found (when formed in Quarter, Half or Open Column); also, a Rule to enable the Commander of a Company (acting as Light Infantry) to name the exact number of Paces necessary to be taken, in order to cover any named extent of Ground, and, by attending to the same Rule, the individual Skirmisher should know the number of Paces he may have to take by recollecting his own number in the Rank and the number of paces of extent named by his Captain.*

N. B.—All fractional parts in this Calculation are to count as whole numbers, by Non Commissioned Officers taking up distances. Thus: 32.5 will count as 33 Paces. The fractional parts are merely given to prove the accuracy of the calculations.

Presuming that no one Battalion in Her Majesty's Service at the present time, exceeds in Strength 1060 men or 530 File, which is the highest number of Files calculated for in this work :—

The 1st Column contains the No. of Files per Company.

The 2nd do the No. of Paces occupied by that Company.

The remaining Columns to the right show according to the strength of their respective headings, the correct depth of Quarter Half and open Columns and the Frontage required in Line;

To account for Commander's distance, take the next column under; which gives a distance equal to one File higher per Company which will account to the Column above (being one File less per Company) for Commanders distance.

The proportionate distances occupied by any number of Troops in Column or Line stand thus:—

In Line, Troops occupy a space equal to about two-thirds of their actual strength in File.

In Open Column, Troops occupy a space equal to three-quarters or five-sixth of that distance occupied in Line.

In Half distance Column, Troops occupy a space equal to half that occupied in Open Column.

In Quarter distance Column, Troops occupy a space equal to half that distance occupied in Half distance Column.

# 1ST RULE OR QUARTER DISTANCE COLUMN.

Divide the No. of Paces between the front of the Column and the front Rank of the Rear Company by the No. of Companies less 1. The product thus obtained will represent a section or the actual Quarter Distance of a Company, which being added to the Dividend, gives one quarter of that space occupied by the Battalion when in line, (Commanders or Supernumeraries not included). Thus:—

Paces 35

Companies 6 — 1 = 5 =  $\frac{35}{5} = \frac{42 \times 4 \times 30}{21} = 240$  Files or 480 men.

# 2ND RULE OR COLUMN AT HALF DISTANCE.

Proceed as under, bearing in mind that the product will represent Subdivision or actual Half Distance of a Company, which being added to the Dividend, gives half of that space occupied by the Battalion when in line. Thus:—

Paces 70

Companies 6 — 1 = 5 =  $\frac{70}{5} = 14 + 70 = \frac{84 \times 2 \times 30}{21} = 240$ .

# 3RD RULE OR OPEN COLUMN.

Proceed as before, bearing in mind that the product represents Division Distance which, being added to the Dividend, gives the entire number of Paces occupied by the Battalion in line. Thus:—

Paces 140

Companies 6 — 1 = 5 =  $\frac{140}{5} = 28 + 140 = \frac{168 \times 30}{21} = 240$ .

# 4TH RULE.—A COMPANY KEEPING GROUND OR ACTING AS LIGHT INFANTRY.

A Company (without respect to strength) being ordered to cover ground to about the extent of 1200 Paces, the Commander will merely divide the extent of ground to be covered by the strength of his Company, less 1. Each individual skirmisher multiplying the number of paces given by his Captain (by his own number less 1,) will thus be enabled to cover any extent of ground with the greatest accuracy. Thus:—

Files.

Captain.

Company 21 — 1 = 20 } =  $\frac{1200}{20} = 60$  Paces. No. 2 takes  
Ground to be covered 1200 Paces } the number of Paces named. No.  
3 multiplies the number of paces named by his own number less 1  
and so on in succession.

### COLUMNS.

### PACES.

COLUMNS.																	
No. of 30 in. Files	No. of Paces.	COMPANIES. 4			LINE.	COMPANIES. 6			LINE.	COMPANIES. 8			LINE.	COMPANIES. 10			LINE.
		Qr.	H.	O.		Qr.	H.	O.		Qr.	H.	O.		Qr.	H.	O.	
PACES.																	
10	7	5.25	10.5	21	28	7	14	28	42	10.5	21	42	56	14	28	56	70
11	7.7	5.77	11.54	23.08	30.8	7.7	15.4	30.8	46.2	11.54	23.08	46.16	60.16	15.4	30.8	61.6	77
12	8.4	6.36	12.7	24.14	33.6	8.4	16.8	33.6	50.4	12.7	24.14	48.28	67.2	16.8	33.6	67.2	84
13	9.1	6.82	13.64	27.28	36.4	9.1	18.2	36.4	54.6	13.64	27.38	54.76	72.8	18.2	36.4	72.8	91
14	9.8	7.35	14.7	28.14	39.2	9.8	19.6	39.2	58.8	14.7	28.14	56.28	78.4	19.6	38.2	78.4	98
15	10.5	7.87	15.74	31.18	42	10.5	21	42	63	15.74	31.18	62.36	84	21	42	84	105
16	11.5	8.62	17.24	34.28	46	11.5	23	46	69	17.24	34.28	68.86	92	23	46	92	115
17	11.9	8.92	17.84	35.68	47.6	11.9	23.8	47.6	71.4	17.84	35.68	71.86	95.2	23.8	47.6	95.2	119
18	12.6	9.45	18.9	37.18	50.4	12.6	25.2	50.4	75.6	18.9	36.18	72.86	100.8	25.2	50.4	100.8	126
19	13.3	9.97	19.94	39.88	53.2	13.3	26.6	53.2	79.8	19.94	39.88	79.76	106.4	26.6	53.2	106.4	133
20	14	10.5	21	42	56	14	28	56	84	21	42	84	112	28	56	112	140

COLUMNS.																	
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		LINE.			LINE.			LINE.			LINE.						
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PACES.																	
21	14.7	11.02	22.05	44.1	58.8	18.37	38.75	73.5	88.2	22.05	44.1	88.2	117.6	3307	66.15	132.3	147
22	15.4	11.55	23.1	46.2	61.6	19.25	38.5	77	92.4	23.1	46.2	92.4	123.2	34.65	69.3	138.6	154
23	16.1	12.07	24.15	48.3	64.4	20.12	40.25	80.5	96.6	24.15	48.3	96.6	128.8	36.23	72.45	144.9	161
24	16.8	12.6	25.2	50.4	67.2	21	42	84	100.8	25.2	50.4	100.8	134.4	37.8	75.6	151.2	168
25	17.5	13.12	26.25	52.5	70	21.87	43.75	87.5	105	26.25	52.5	105	140	39.37	78.75	157.5	175
26	18.2	13.65	27.3	54.6	72.8	22.75	45.5	91	109.2	27.3	54.6	109.2	145.6	40.95	81.9	163.8	182
27	18.9	14.17	28.35	56.7	75.6	23.62	47.25	94.5	113.4	28.35	56.7	113.4	157.2	42.52	85.05	170.1	189
28	19.6	14.7	29.4	58.8	78.4	24.5	49	98	117.6	29.4	58.8	117.6	156.8	44.1	88.2	176.4	196
29	20.3	15.17	30.35	60.9	81.2	25.37	50.75	101.5	121.8	30.35	60.9	121.8	162.4	45.52	91.05	182.7	203
30	21	15.75	31.5	63	84	26.25	52.5	105	126	31.5	63	126	168	47.25	94.5	189	210
31	21.7	16.27	32.55	65.1	86.8	27.12	54.25	108.5	130.2	32.55	65.1	130.2	173.6	48.82	97.65	195.3	217



29	20.3	13.1	30.33	60.9	81.2	23.31	90.13	101.3	121.8	30.36	60.9	121.8	162.4	46.52	91.05	188.7	203
30	21	15.75	31.5	63	84	26.25	52.5	105	126	31.5	63	126	168	47.25	94.5	189	210
31	21.7	16.27	32.55	65.1	86.8	27.12	54.25	108.5	130.2	32.55	65.1	130.2	173.6	48.82	97.65	195.3	217

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		Qr.	H.	O.	Qr.	H.	O.	Qr.	H.	O.	Qr.	H.	O.				
PAGES.																	
43	30.1	22.57	45.15	90.3	120.4	37.62	75.25	150.5	180.6	45.15	90.3	180.6	240.8	67.72	135.25	270.19	301
44	30.8	23.1	46.2	92.4	123.2	38.5	77	154	184.8	46.2	92.4	184.8	246.4	69.3	138.6	277.2	308
45	31.5	23.62	47.25	94.5	126	39.77	78.75	157.5	189	47.25	94.5	189	252	70.87	141.75	283.5	315
46	32.2	24.15	48.3	96.6	128.8	40.25	80.5	161	193.2	48.3	96.6	193.2	257.8	72.45	144.9	289.8	322
47	32.9	24.67	49.35	98.7	131.6	41.12	82.25	164.5	197.4	49.35	98.7	197.4	263.8	74.02	148.05	296.1	329
48	33.6	25.2	50.4	100.8	134.4	42	84	168	201.6	50.4	100.8	201.6	268.8	75.6	151.2	302.4	336
49	34.3	25.72	51.45	102.9	137.2	42.87	85.75	171.5	205.8	51.45	102.9	205.8	274.4	77.17	154.35	309.7	343
50	35	26.25	52.5	105	140	43.75	87.5	175	210	52.5	105	210	280	78.75	157.5	315	350
51	35.7	26.77	53.55	107.1	142.8	44.62	89.25	178.5	214.2	53.55	107.1	214.2	285.6	80.32	160.65	321.3	357
52	36.4	27.3	54.6	109.2	145.6	45.5	91	182	218.4	54.6	109.2	218.4	291.2	81.9	163.8	327.6	364
53	37.1	27.82	55.65	111.3	148.4	46.37	92.75	185.5	222.6	55.65	111.3	222.6	296.8	83.47	166.95	333.9	371

52	36.4	27.3	54.6	109.2	145.6	45.5	91	182	218.4	54.6	109.2	218.4	291.2	81.9	163.8	327.6	364
53	37.1	27.82	55.65	111.3	148.4	46.37	92.75	185.5	222.6	55.65	111.3	222.6	296.8	83.47	166.95	333.9	371

COLUMNS.																	
No. of Files	No. of 30 in. Paces.	COMPANIES. 3			COMPANIES. 6			COMPANIES. 7			COMPANIES. 9			COMPANIES. 9			LINE.
		LINE.			LINE.			LINE.			LINE.			LINE.			
		Qr.	H.	O.	Qr.	H.	O.	Qr.	H.	O.	Qr.	H.	O.	Qr.	H.	O.	
PACES.																	
10	7	3.5	7	14	21	7	14	28	35	10.5	21	42	49	14	28	56	63
11	7.7	3.85	7.7	15.4	23.1	7.7	15.4	30.8	38.5	11.55	23.1	46.2	53.9	15.4	30.8	61.6	9.3
12	8.4	4.2	8.4	16.8	25.2	8.4	16.8	33.6	42	12.6	25.2	50.4	58.8	16.8	33.6	67.2	75.6
13	9.1	4.55	9.1	18.2	27.3	9.1	18.2	36.4	45.5	13.65	27.3	54.6	63.7	18.2	36.4	72.8	81.9
14	9.8	4.9	9.8	19.6	29.4	9.8	19.6	39.2	49	14.7	29.4	58.8	68.6	19.6	39.2	78.4	88.2
15	10.5	5.25	10.5	21	31.5	10.5	21	42	52.5	15.75	31.5	63	72.1	21	42	84	94.5
16	11.5	5.75	11.5	23	34.5	11.5	23	46	57.5	17.25	34.5	69	80.5	23	46	92	103.5
17	11.9	5.95	11.9	23.8	35.7	11.9	23.8	47.6	59.5	17.85	35.7	71.4	83.3	23.8	47.6	5.2	107.1
18	12.6	6.3	12.6	25.2	37.8	12.6	25.2	50.4	63	18.9	37.8	75.6	88.2	25.2	50.4	100.8	113.4
19	13.3	6.65	13.3	26.6	39.9	13.3	26.6	53.2	66.5	19.95	39.9	79.8	93.1	26.6	53.2	106.4	119.7
20	14	7	14	28	42	14	28	56	70	21	42	84	98	28	56	112	126

COLUMNS.																								
No. of Files	No. of 30 in. Paces.	COMPANIES. 3			LINE.	COMPANIES. 5			LINE.	COMPANIES. 7			LINE.	COMPANIES. 9			LINE.							
		Qr.	H.	O.	Qr.	H.	O.	Qr.	H.	O.	Qr.	H.	O.	Qr.	H.	O.								
PACES.																								
21	14.7	7.5	15	30	44.1	14.7	29.4	58.8	73.5	22.05	44.10	88.2	102.9	22.5	45	90	132.3							
22	15.4	7.7	15.4	30.8	46.2	15.4	30.8	61.6	77	23.1	46.2	92.4	107.8	23.1	46.2	92.4	138.6							
23	16.1	8.05	16.1	32.20	48.3	16.1	32.2	64.4	80.5	24.15	48.30	96.60	112.7	24.15	48.3	96.6	144.9							
24	16.8	8.4	16.8	33.6	50.4	16.8	33.6	67.2	84	25.2	50.4	100.8	117.6	25.2	50.4	100.8	161.2							
25	17.5	8.75	17.5	35	52.5	17.5	35	70	87.5	26.25	56.50	103	122.5	26.25	52.5	105	157.5							
26	18.2	9.1	18.2	36.4	54.6	18.2	36.4	72.8	91	27.3	54.6	109.2	127.4	27.3	54.6	109.2	163.8							
27	18.9	9.45	18.9	37.8	56.7	18.9	37.8	75.6	94.5	28.35	56.70	113.40	132.3	28.35	56.7	113.4	170.1							
28	19.6	9.8	19.6	39.2	58.8	19.6	39.2	78.4	98	29.4	58.8	117.6	137.2	29.4	58.8	117.6	176.4							
29	20.3	10.15	20.3	40.6	60.9	20.3	40.6	81.2	101.5	30.45	60.90	121.80	142.1	30.45	60.9	121.8	182.7							
30	21	10.5	21	42	63	21	42	84	105	31.5	62.10	124.20	147	30.15	63	126	189							
31	21.7	10.85	21.7	43.4	65.1	21.7	43.4	86.8	108.5	32.55	63.10	126.20	151.9	32.55	65.1	130.2	195.3							

29	20.3	10.5	21	42	63	21	42	84	105	31.5	62.10	124.20	147	30.15	63	126	189
30	21	10.5	21	42	63	21	42	84	105	31.5	62.10	124.20	147	30.15	63	126	189
31	21.7	10.85	21.7	43.4	65.1	21.7	43.4	86.8	108.5	32.55	63.10	126.20	151.9	32.55	65.1	130.2	195.3

COLUMNS.																	
No. of Files	No. of 30 in. Pages.	COMPANIES. 3			COMPANIES. 6			COMPANIES. 7			COMPANIES. 9			LINES.			
		LINE.		Qr.	LINE.		Qr.	LINE.		Qr.	LINE.		Qr.	LINES.			
		H.	O.		H.	O.		H.	O.		H.	O.					
PAGES.																	
32	22.4	11.2	22.4	44.8	89.6	112	33.6	67.2	134.4	166.8	44.8	89.6	179.2	201.6			
33	23.1	11.55	23.1	46.2	92.4	115.5	34.65	69.3	138.6	161.7	46.2	92.4	184.8	207.9			
34	28.8	11.9	23.8	47.6	95.2	119	35.7	71.4	142.8	166.6	47.6	95.2	190.4	208.2			
35	24.5	12.25	24.5	49	90	122.5	36.75	73.5	147	171.5	49	90	196	220.5			
36	25.2	12.6	25.2	50.4	100.8	128	37.8	75.6	151.2	176.4	50.4	100.8	201.6	226.8			
37	25.9	12.95	25.9	51.8	103.6	129.5	38.85	77.7	155.4	181.3	51.8	103.6	207.2	233.1			
38	26.6	13.3	26.6	53.2	106.4	133	39.9	79.8	159.6	186.2	53.2	106.4	212.8	239.4			
39	27.3	13.65	27.3	54.6	109.2	136.5	40.95	81.9	163.8	191.1	54.6	109.2	218.4	245.7			
40	28	14	28	56	112	140	42	84	168	196	56	112	224	252			
41	22.7	14.35	22.7	57.4	114.8	143.5	43.05	86.1	172.2	200.9	57.4	114.8	229.6	258.3			
42	29.4	14.7	29.4	58.8	117.6	147	44.1	88.2	176.4	245.8	58.8	117.6	235.2	264.6			

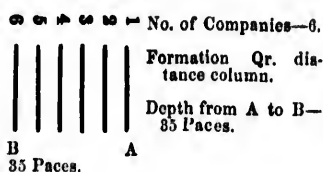
COLUMNS.														
No. of Files	No. of 30 in. Paces.	COMPANIES. 3			COMPANIES. 5			COMPANIES. 7			COMPANIES. 9			LINE.
		LINE.			LINE.			LINE.			LINE.			
		Qr.	H.	O.	Qr.	H.	O.	Qr.	H.	O.	Qr.	H.	O.	
PACES.														
43	30.1	15.05	30.1	60.2	90.3	30.1	60.2	120.4	150.5	43.15	86.3	172.6	210.7	270.9
44	30.8	15.4	30.8	61.6	92.4	30.8	61.6	123.2	154	46.2	92.4	184.8	215.6	277.2
45	31.5	15.75	31.5	63	94.5	31.5	63	126	157.5	47.25	94.5	189	220.5	283.5
46	32.2	16.1	32.2	64.4	96.6	32.2	64.4	128.8	161	48.3	96.6	193.2	225.4	289.8
47	32.9	16.45	32.9	65.8	98.7	32.9	65.8	131.6	164.5	49.35	98.7	197.4	230.3	296.1
48	33.6	16.8	33.6	67.2	100.8	33.6	67.2	134.4	168	50.4	100.8	201.6	235.2	302.4
49	34.3	17.15	34.3	68.6	102.9	34.3	68.6	137.2	171.5	51.85	117.7	235.4	240.1	308.7
50	35	17.5	35	70	105	35	70	140	175	52.5	105	210	245	315
51	35.7	17.85	35.7	71.4	107.1	35.7	71.4	142.8	178.5	53.55	107.1	214.2	249.9	321.3
52	36.4	18.2	36.4	72.8	109.2	36.4	72.8	145.6	182	54.6	109.2	218.4	254.8	327.6
53	37.1	18.55	37.1	74.2	111.3	37.1	74.2	148.4	185.5	55.65	111.3	222.6	259.7	333.9

[illegible]

**CIVILIANS' KEY TO THE MILITARY READY RECKONER.**

# CIVILIANS' KEY TO THE MILITARY READY RECKONER.

## Qr. Distance Column.

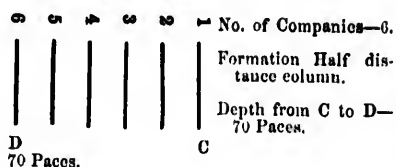


## 1st.

No. of Files.	No. of 30 in. Paces.	COLUMN.		
		COMPANIES. 6.		
		Qr.	H.	O.
40	..	35	..	..

40x6=240 Files  
or  
480 men.

## Half Distance Column.

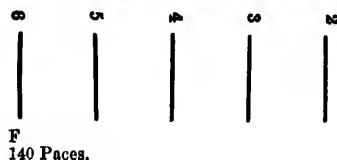


## 2nd.

No. of Files.	No. of 30 in. Paces.	COLUMN.		
		COMPANIES. 6.		
		Qr.	H.	O.
40	..	..	70	..

40x6=240 Files  
or  
480 men.

## Open or Wheeling Distance.



## 3rd.

No. of Files.	No. of 30 in. Paces.	COLUMN.		
		COMPANIES. 6.		
		Qr.	H.	O.
40	..	..	..	140

40x6=240 Files  
or  
480 men.



No. of Files.	No. of 30 in. Paces.	COLUMN.			LINE.
		COMPANIES. 6.			
		Qr.	H.	O.	
40	..	..	..	..	162

40 x 6=240  
Files or  
480 men.

To enable the casual spectator to tell the number of Troops assembled at a Review or elsewhere you have merely to find out three things, viz:

1st. The number of Companies in each Regiment.

2nd. The formation (whether it be Quarter, Half or Open Column.)

3rd. The Depth of Column;

which information can be obtained from observation at a distance of many yards.

The point marked G the best position from which the above information can be acquired. When you have gained the above information, look to the Ready Reckoner, where you will find the number of Companies to correspond with the number of Companies in the Regiment or Regiments assembled. Under the letters which indicate the several formations, you will find the number of paces to correspond with the depth of the several Regiments in Column; from which follow in a horizontal line to the left Column (headed No. of File), which at once gives you the number of Files per Company; which being multiplied by the number of Companies gives you the number of Files in the Regiment.

When Troops are not equalized by Companies, their strength can best be told when formed in line, which can easily be done by pacing along the front or rear of line, which is practicable at a considerable distance from the Troops.

Suppose the number of paces thus obtained to be 162, find a corresponding number under the heading of line, from which proceed as directed in formation of Column.



TO

For  
which

The  
number  
gives  
84 pages  
front  
strengthened  
each

Such  
calculations  
greatly  
easily  
occure  
under  
you  
line  
equation

A  
of C  
N.  
conv  
may

## TO EQUALIZE A REGIMENT OF VOLUNTEERS INTO COMPANIES OF EQUAL STRENGTH.

---

Form Line, Commanders of Companies fall to the rear at once upon which they all feel their right.

The Adjutant in front should be able to tell from observation what number of paces the Line stands upon, say for example 56 paces, which gives four Companies each 20 files in strength; or with a frontage of 84 paces, which gives 6 Companies each 20 files in strength; or with a frontage of 112 paces, which gives 8 Companies each 20 files in strength; or with a frontage of 140 paces, which gives 10 Companies each 20 files in strength.

Supposing the frontage in Line to be equal to any of the above calculations or to any other number of paces being either less or greater than what I have given in the above examples, you may easily find the number of paces to correspond with the frontage occupied by any Line of Troops by following any column in the Table under the heading of Line, (being guided by the Number of Companies you may require) on finding the number of paces follow in a horizontal line to the left column under the heading of Files, which at once equalizes a Regiment into any number of Companies of equal strength.

A Regiment of Volunteers may thus be equalized into any number of Companies without the least trouble or loss of time.

N. B.—The preceding mode of equalizing a Regiment may be found convenient after an engagement, where a part of many Companies may have been cut away.

## A MILITARY ARITHMETICAL EXERCISE.

---

1.

A Regiment consisting of 3 Companies, whose depth at Quarter distance is 7.5 paces, being marched upon a certain ground which in extent will only admit of the said Regiment being formed up at Open, Half or Quarter distance Column;

A Regiment consisting of 5 Companies (Companies in both cases being of equal strength) being ordered to occupy the same ground; by what formation of Column will the latter be enabled to do so?

2.

A Regiment consisting of 3 Companies, whose front in Column is 14.7 paces, occupying a certain position in Column, and only enabled by the extent of ground to wheel into Line;

A Regiment consisting of 7 Companies (Companies in both cases being of equal strength) being ordered to relieve the preceding Regiment, what formation of Column will the ground permit the latter Regiment to occupy?

3.

A Regiment consisting of 5 Companies, each Company being 14 Files in strength, are only enabled from the extent of ground to wheel 4 Companies into Line;

A Regiment consisting of 9 Companies and of equal strength with the above being ordered to occupy the same position and to stand in Column; from the extent of ground what formation of Column are they at liberty to occupy?

4.

A Regiment consisting of 7 Companies takes up a position upon a certain space of ground which admits the said Regiment to execute all formation of Column and wheel into Line, the greatest length of ground being 147 paces, greatest width 21 paces; what was the individual strength of the Regiment exclusive of supernumeraries?

5.

A Regiment consisting of 6 Companies drawn up at Half distance Column, occupying a space of 35 paces in depth, what is the width, the frontage required in Line, and the individual strength of the Regiment?

6.

A Regiment consisting of 10 Companies drawn up at Quarter distance occupying a space of 14 paces in width, an available space of 63 paces lies to both flanks, how many Companies can be brought into Line and upon what Company should the deployment take place?

7.

A Regiment consisting of 9 Companies, and whose depth at Quarter distance is 42 paces, deploys into Line: the Commander finds he has not space enough by 21 paces to bring his Regiment into Line. How many files are out and what is the strength of the Regiment?

8.

A Regiment consisting of 5 Companies, and whose depth at Quarter distance is 14.7 paces; Required the width and No. of Files per Company?

9.

A Column consisting of 10 Companies marched past a certain point, during the time which elapsed from the arrival of the front Rank of the leading Company and the arrival of the front Rank of the Rear Company at the same point the Regiment marched 45 paces: what was the strength of the Regiment exclusive of supernumeraries?

10.

A Regiment consisting of 10 Companies (and whose depth at Quarter distance is 30 paces,) being in Line and ordered to change position the  $\frac{1}{4}$  of a circle to the left, from a certain obstacle in front of the left wing, and at right angles with a certain Company 27 paces from the left: Required the Company upon which the change takes place, or the company in whose immediate front stands the obstacle?

11.

A Column consisting of 10 Companies, and whose depth at Quarter distance is 18 paces, while on the march receives the command by successive Companies "Rear Wing to the front," the Regiment continues to advance in quick time;

Each Company being brought from rear to front in succession by its own Commander in double time; how far has the Regiment advanced from the first pace taken in double time until the completion of the movement, also the time occupied in executing the same?

12.

The A Battery Royal Artillery proceeded from Montreal to Chambly, a distance of 18 English miles, marching at the rate of 3 miles an hour, halting 10 minutes in every hour during the march.

The B Battery Royal Artillery left Montreal 50 minutes later *en route* for the same destination as the A Battery, marching at such a rate so as to enable them to halt 20 minutes in every hour and arrive at Chambly 50 minutes 40 seconds before the A Battery.

Where did the B Battery pass the A Battery, and in what time was the distance marched by the B Battery Royal Artillery?

## ANSWERS.

---

1.  
Half and Quarter distance.

2.  
Half and Quarter distance.

3.  
Quarter distance Column.

4.  
420 men

5.  
Width 14 paces, frontage in Line 89 paces, individual strength 400 men.

6.  
The entire Regiment deploys into Line on the two centre subdivisions.

7.  
Files out 30. Strength of Regiment 270 files

8.  
Width 14.7 paces. 21 files per company.

9.  
560 men.

10.  
8th Company.

11.  
239 yards, time 1 minute 35 seconds 36 degrees.

12.  
5 Hours 20 minutes and 40 seconds. Passed near the finish of first 9 miles.

#### ERRATUM.

On page 4, 22nd line, for "applied with success," read "applied with equal success."

On page 5, 8th line, for "the Instructor's," read "their Instructor's."

On page 8, 1st line of 2nd Rule, for "proceed as under," read "proceed as above."

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ctor's."  
'proceed



