SECTION IV.—SCIENTIFIC.—(*Continued.*)

PRINCIPLES OF GUNNERY:
Deviation of Rifled Projectiles 11
Penetration of Projectiles 16
Calculation of final velocity 18
Armor plate penetration 20
Definitions 21

CONSTRUCTION OF ORDNANCE:
Smooth bored ordnance 27
Sights for S. B. ordnance 30
Rule for length of degree on tangent scale 31
Sighting S. B. Ordnance 31
Copper venting 30
Rifled ordnance 31

PRACTICE OF GUNNERY:
Definitions 37
Direct fire 38
Curved fire 38
High angle fire 38
Laying guns and Howitzers 40
Sights of S. B. guns 41
Sights of rifled guns 41
Range finding 42
Shell firing 45
Curved fire 49
High angle fire 52
Rough rules for gunners 58

RANGE TABLES FOR GUNS OF CANADIAN MILITIA:
Range table for 9 Por. R. M. L. gun 60
" " 7 " " 61
" " 6 " B. L. R. gun, (Armstrong) 62
" " 6 " S. B. gun, (Bronze) 63
" " 9 " S. B. " " 64
" " 12 " S. B. " " 65
" " 24 " S. B. Howitzers, (Bronze) 66
" " 18 " S. B. gun, (iron) 67
" " 24 " " " " 68
" " 32 " " " " 69
" " 42 " " " " 70
" " 56 " " " " 71
" " 8 inch " " " 72
" " 68 por. " " " 73
" " 64 " R. M. L., (converted) 74
" " 7 inch B. L. R., (Armstrong) 75
" " 40 por. " " 76
" " Mortars 77
" " Carronades 78