

## PREFACE

xix

been withdrawn for ever. But that is not the only change. It is difficult to over-estimate the increased strain upon the nerve and *morale* of an army under action by the fact that men will fall killed and wounded without any visible or audible cause. In the old days the soldier saw the puff of smoke, heard the roar of the gun, and when the shell or shot ploughed its way through the ranks, he associated cause and effect, and was to a certain extent prepared for it. In the warfare of the future men will simply fall and die without either seeing or hearing anything."

"Without hearing anything, M. Bloch?"

"Without hearing anything, for although the smokeless powder is not noiseless, experience has proved that the report of a rifle will not carry more than nine hundred yards, and volley-firing cannot be heard beyond a mile. But that brings us to the question of the increased range of the new projectiles. An army on march will suddenly become aware of the comparative proximity of the foe by seeing men drop killed and wounded, without any visible cause; and only after some time will they be able to discover that the invisible shafts of death were sped from a line of sharp-shooters lying invisible at a distance of a mile or more. There will be nothing along the whole line of the horizon to show from whence the death-dealing missiles have sped. It will simply be as if the bolt had come from the blue. Can you conceive of anything more trying to human nerves?"

"But what is the range of the modern rifle?"

"The modern rifle," said M. Bloch, "has a range of 3000 or 4000 metres—that is to say, from two to three miles. Of course, I do not mean to say that it will be used at such great distances. For action at long range, artillery is much more effective. But of that I will speak