

TABLE OF CONTENTS

PREFACE	VII
LIST OF DIAGRAMS	XI
LIST OF ABBREVIATIONS USED IN FOOTNOTES	XIII
CHAPTER I: Hooke's Life and Times	1
1. Hooke's Early Life	1
2. Hooke's Oxford Days	2
3. Hooke and the Royal Society	4
4. Hooke's Denouement	11
5. Hooke's Works and Work	12
CHAPTER II: The New Experimental Philosophy	16
1. Baconian Induction	16
2. Hooke and Baconian Induction in Theory	20
3. Hooke and Baconian Induction in Practice	23
4. Hooke's Development of Baconian Induction	31
CHAPTER III: The Mechanics of Fluid Motions	41
1. The Legacy of Bacon and Boyle	41
2. Capillary Action (1661)	45
3. Fluid Pressure (1662)	48
4. The Springiness of Air (1660-1678)	51
5. "Boyle's Law"	58
6. The Debates of 1678	60
CHAPTER IV: The Mechanics of Terrestrial Local Motions	63
1. The Legacy of Descartes	63
2. The Properties of Falling Bodies	80
3. The Springiness of Matter	87

CHAPTER V: The Mechanics of Celestial Local Motions	92
1. The Cause of Planetary Motions	92
2. The Cause of Gravitation	97
3. The Mathematics of Gravitation	105
CHAPTER VI: Hooke's Place in the History of Mechanics	118
BIBLIOGRAPHY	127
INDEX	136