

Cambridge University Press

978-0-521-33768-7 - The Uses of Experiment: Studies in the Natural Sciences

Edited by David Gooding, Trevor Pinch and Simon Schaffer

Table of Contents

[More information](#)

## CONTENTS

<i>Contributors</i>	ix
<i>Preface</i>	xiii
<b>Introduction: some uses of experiment</b>	1
<i>David Gooding, Trevor Pinch and Simon Schaffer</i>	
<b>PART I: INSTRUMENTS IN EXPERIMENT</b>	29
1 <b>Scientific instruments: models of brass and aids to discovery</b>	31
<i>W.D. Hackmann</i>	
2 <b>Glass works: Newton's prisms and the uses of experiment</b>	67
<i>Simon Schaffer</i>	
3 <b>A viol of water or a wedge of glass</b>	105
<i>J.A. Bennett</i>	
<b>PART II EXPERIMENT AND ARGUMENT</b>	115
4 <b>Galileo's experimental discourse</b>	117
<i>R.H. Naylor</i>	
5 <b>Fresnel, Poisson and the white spot: the role of successful predictions in the acceptance of scientific theories</b>	135
<i>John Worrall</i>	
6 <b>The rhetoric of experiment</b>	159
<i>Geoffrey Cantor</i>	
<b>PART III REPRESENTING AND REALISING</b>	181
7 <b>'Magnetic curves' and the magnetic field: experimentation and representation in the history of a theory</b>	183
<i>David Gooding</i>	

Cambridge University Press

978-0-521-33768-7 - The Uses of Experiment: Studies in the Natural Sciences

Edited by David Gooding, Trevor Pinch and Simon Schaffer

Table of Contents

[More information](#)

viii	<i>Contents</i>	
8	Artificial clouds, real particles <i>Peter Galison and Alexi Assmus</i>	225
9	Living in the material world <i>Andy Pickering</i>	275
10	Justification and experiment <i>Thomas Nickles</i>	299
	<b>PART IV THE CONSTITUENCY OF EXPERIMENT</b>	335
11	Extraordinary experiment: electricity and the creation of life in Victorian England <i>James A. Secord</i>	337
12	Why did Britain join CERN? <i>John Krige</i>	385
	<b>PART V HALLMARKS OF EXPERIMENT</b>	407
13	From Kwajalein to Armageddon? Testing and the social construction of missile accuracy <i>Donald MacKenzie</i>	409
14	The epistemology of experiment <i>Allan Franklin</i>	437
	<i>Select bibliography</i>	461
	<i>Name index</i>	468
	<i>Subject index</i>	474