

CONTENTS

	Page
PREFACE	v
CHAPTER I. GENERAL DESCRIPTION. Compiled by H. KAWASUMI.	
1. Introduction	1
2. Seismic History of the District	1
3. Location, Topography and Geology	2
4. Faults, Hot Springs and Volcanoes and their Changes	4
5. Seismic Features	5
6. Distribution of First Impulsions and Mechanism of Earthquake Occurrence in Relation to Topographic Changes	5
7. Magnitude and Energy	9
8. Damage	13
9. Intensity of Earthquake Motions in Disaster Area	24
10. Opening and Closing of Fissures	26
11. Summary	27
CHAPTER II. SEISMOMETRICAL FEATURES. Compiled by W. INOUE.	
1. Introduction	29
2. Seismometrical Study of the Fukui Earthquake.	30
CHAPTER III. AFTERSHOCKS. Compiled by S. OMOTE.	
1. Introduction	37
2. Observation of Aftershocks at Station Observatory.	40
3. Observation of Aftershocks at Temporary Observation Points	41
4. On Micro-earthquakes having Accompanied Aftershocks of the Fukui Earthquake.	53
CHAPTER IV. NATURE OF EARTHQUAKE-MOTIONS ON VARIOUS GEOLOGICAL FORMATIONS. Compiled by T. MINAKAMI.	
1. Introduction	79
2. Earthquake-Motions on Various Geological Formations at the Southern Area of Fukui City.	79
3. Earthquake-Motions on Various Formations at the Northern Area of Fukui City	86
4. The Formations near the Earth's Surface at the Northern Area of Fukui City	88
5. Foundation Coefficient	92
CHAPTER V. CRUSTAL DEFORMATIONS. Compiled by N. NASU and T. RIKITAKE.	
Section 1. Leveling and Triangulation Surveys	93
1. Leveling Survey between Fukui and Daishoji.	93
2. Leveling Surveys along the Hokuriku and Katsuyama Highways	97
3. Leveling Survey in the Fukui Plain	100
4. Triangulation Survey	106
5. Analytical Study of the Crustal Deformation	108
6. Post-seismic Crustal Movements as revealed along the Katsuyama Highway	110

	Page
Section 2. Investigation of the Seismic Fault	112
Section 3. Observations with Tiltmeters and Extensometers.	124
 CHAPTER VI. MACROSEISMIC FEATURES. Compiled by N. MIYABE, K. KI- SHINOUE and D. SHIMOZURU.	
Section 1. Cracks and Fissures	131
1. Introduction	131
2. Forms of Cracks and Fissures	132
3. Geographical Distribution of Cracks and Fissures.	132
4. Earthquake Faults	133
5. Mechanism of Crack Formation.	134
Section 2. Field Investigations of Earthquake Phenomena	135
1. Introduction	135
2. Overturning of Gravestones and Stone Lanterns	136
3. Experiences of the Earthquake	148
4. Mud Volcanoes	156
5. Experiences of Aftershocks.	157
6. Experiment of Overturning of Columns by Aftershocks	158
Section 3. Change of the Ground-water	161
 CHAPTER VII. ELECTRIC AND MAGNETIC FEATURES. Compiled by Y. KATO.	
1. Magnetic Features	167
2. Electric Features.	176
 CHAPTER VIII. DAMAGE TO BUILDING AND CIVIL ENGINEERING STRUCTURES. Compiled by K. KANAI and R. TAKAHASI.	
Section 1. The Damage to Buildings.	185
1. Description of Damages	185
2. Vibration Experiments with the Houses	186
3. Interpretation of the Damaged Conditions	187
4. Method of the Observation of Strains of a House.	187
5. Results of the Observations	188
6. Relation between the Acceleration and the Strain	188
Section 2. Damage to Civil Engineering Structures	190
1. General Descriptions	190
2. Railways	191
3. Bridges	194
4. Highways.	197
5. Steel Towers of Electric Transmission Line	197