Table of Contents

1.	General Theory	1
	1.1 Introduction	1 3
2.	Shock Propagation in Non-Uniform Ducts	9
	2.1 Introductory Comments. . 2.2 Transition Relations Across Normal Shocks . 2.2 Object .	9 12
	2.3 Solution behind the Incident Shock	15 20
	 2.5 Modified Perturbation Theory	23
		21
3.	The Piston-Driven Shock Wave	30
	3.2 The Piston-Driven Cylindrical Shock Wave	30 32
	3.3 The Piston-Driven Spherical Shock Wave	34
	3.4 The Integrated Shock Strength-Area Relation	35
4.	<i>Flows with Heat Addition</i>	37
	4.1 The Linearized Equations	37
	4.2 Extension of STOCKER's Work	39 47
F		-1/ 50
э.	51 Introductory Commente	50 50
	5.2 The Monatomic Fluid \ldots	50 51
	5.3 Perturbation of a Centered Simple Wave Flow	54
	5.4 Perturbation of an Arbitrary Simple Wave	59
	5.5 A Class of Exact Solutions of Non-Isentropic Flow	64
6.	Formation and Decay of Shock Waves	68
	6.1 Introduction	68 60
	6.3 The Differential Equation for the Shock Path	09 71
	6.4 Decaying Shock Wave	73
	6.5 Formation of a Shock Wave	75
7.	The Effects Due to an Oblique Applied Field	78
	7.1 The Characteristic Form of the Governing Equations	78
	7.2 Transition Relations Across Oblique Shock Waves	84 07
	7.4 Perturbation of an Arbitrary Simple Wave Flow	87 92
References		96
Δ1		
Л	A Dringing Notation	00
	A. FILLUPAL NOTATION	99 100
	D. The characteristic form of the Dasic Equations $\dots \dots \dots \dots \dots$	100
	D. Tables of the Function F	113
	E. Tables of the Parameters K, and K, and the Functions F, and F	114
		~ ~ *