TABLE OF CONTENTS

Introduction	ix
THE CLARINET	
The Clarinet Screwboard	1
The Clarinet—An Exploded View	2
Assembling the Clarinet	3
Replacement of Key Bumpers	4
Bumper Corks	4
Felt Bumpers	6
Silencers	8
Tenon Corks	9
Springs	15
Flat Springs	15
Needle Springs	17
Screws	23
Stuck Screws	23
Bent Screw or Keys	23
Repair of a Bent Screw	24
Corroded Screws	26
Making a Rod Screw	30
Pads	33
The Testing Feeler	33
The Testing Feeler Holder	34
Making a Testing feeler	34
Clarinet Pads	35
Replacing Bladder Pads	35
Replacing Cork Pads	39
The Bridge Mechanism	41
Regulating the C, C#, and B Keys (Lower Joint)	44
Woodwind Key Work	45
Loose Posts	46
The Post Turner	47
Making a Post Turner	47
Locking Posts with a Screw and Washer	48
Swedging	49
Hinge Tube Extensions	50

A Guide to Repairing Woodwinds

Hinge Shorteners	52
Post Counter Sinks	54
Pivot Screw Reamers	55
Key Bending	55
Minor Body Work	59
Inspection	59
Cleaning	59
Buffing Wood, Plastic, and Hard Rubber Bodies	60
Oiling Wood Bodies	61
Gilding Trademarks	61
The Clarinet Register Tube	61
The Clarinet Thumb Tube	62
Stuck Wood Joints	63
Tenon Rings	63
Swedging Bell Rings	67
Testing Procedures for the Clarinet	68
Burning in Pads	70
THE FLUTE	
The Flute Screwboard	72
The Flute—An Exploded View	73
Assembling the Flute	74
Adjusting Flute and Piccolo Tenons	74
Head Joint Stopper Corks	77
Flute Round Springs	80
Trill Key Bumper Corks	81
Flute Pads	82
Independent Keys	82
Open Hole or "French" Style Flute Pads	87
Flute Regulation	88
Hinge Rod Pins	91
Removing Hinge Rod Pins	93
Minor Body Work	94
Dents and Bends	94
Soldering	97
Cleaning and Buffing	98
Testing Procedures for the Flute	99
THE SAXOPHONE	
The Saxophone Screwboard	101
The Saxophone—An Exploded View	101
Assembling the Saxophone	104

Table of Contents

Saxophone Tenons	104
Cork Tenons	104
Metal Saxophone Tenon Regulation	108
Bumper and Regulation Corks and Felts	110
Springs	111
Saxophone Pads	111
Replacing Saxophone Pads	112
Removal and Installation of Snap-In Tone Boosters	114
Seating Saxophone Pads	115
Hints on Saxophone Regulation	118
The Octave Mechanism	118
Upper Stack Key Adjustments	120
Forked B-flat—G-sharp Bridge	121
Rollers	122
In Case of Difficulty	123
Saxophone Body Work	123
Dents	123
Bent Bodies	124
The Saxophone Neck	125
Swedging	126
Soldering	127
A Word About Buffing	128
Testing Procedures for the Saxophone	129
THE BASSOON	
The Bassoon Screwboard	131
The Bassoon—An Exploded View	132
Assembling the Bassoon	133
Bassoon Tenons	135
Thread Wrap	135
Cork Wrap	136
The Boot Joint	137
Replacing the Boot Gasket	137
The Butt Plate	140
Bumper and Regulation Corks and Felts	142
Springs	142
Bassoon Pads	142
Sealing the Pores of Bassoon Pads	142
Hints on Bassoon Regulation	144
The Whisper Key	144
Regulation of the Low D-natural, C-natural, B-natural, and B-flat Pads	145
Bassoon Body Work	146
Locks Guards and Other Attachments	146

A Guide to Repairing Woodwinds

The state of the s	
Tenon Rings	146
The Bore	146
Cracks	148
Exterior Finish	148
Testing Procedures for the Bassoon	150
THE OBOE	
The Oboc Screwboard	153
The Oboe—An Exploded View	154
Assembly of the Oboe	155
Oboe Tenons	155
Bumper and Regulation Corks	155
Springs	156
Oboe Pads	156
Oboe Regulation	157
Testing Procedures for the Oboe	160
HARMONY CLARINETS	
The Difference Between Large and Small	161
Special Problems	161
The First "Ring" Key (The E-B Ring)	161
The Articulated G-sharp	162
The Low E-flat key	162
Register Key Mechanisms	162
MAJOR WOODWIND BODY REPAIRS	
Crack Pinning	165
Replacing Tone Holes	171
Finger Holes	171
Padded Tone Holes	175
Resetting Tone Holes	178
Renewing Broken Tenons	180
Installing Tenon Caps	187
APPENDICES	
A. Soldering	193
Soft Soldering Procedures	193
Silver Soldering Procedures	195
Silver Soldering on Plated Keys	197

Table of Contents

B. Jeweler's Saw Blade Size Table	198
C. Tap and Drill Size Tables	199
Domestic Threads	199
Decimal Equivalents of the Numbered Twist Drills	200
Decimal Equivalents of the Lettered Twist Drills	201
D. Table of Weights and Measures	202
Linear Measure	202
Square Measure	202
Cubic Measure	202
Liquid Measure	202
Avoirdupois Weight	203
Troy Weight	203
Apothecaries' Weight	203
Conversion Factors for Units	203
Decimal Equivalents Parts of an Inch	204
E. Pivot Screw Chart and Thread Size List	205
Brass Instrument Thread Size List	205
Regulation and Pivot Screw Chart	208
F. Tool and Supply Lists	209
Tool List	209
Supply List	212
G. Merchants of Tools, Parts, and Supplies	215
Tool and Supply Houses	215
Services to the Industry	217
Reeds, Reedmaking Supplies, and Mouthpieces	218
Instrument Manufacturers and Importers	220
H. Bibliography of Publications on Wind Instrument Repairs	226
J. Repadding/Overhauling Procedure Sheets	228
Clarinet	228
Flute	231
Saxophone	233
Bassoon	236
Oboe and English Horn	240