

PART I—GENERAL WELDING INFORMATION

SECTIONS

1. The Place of the Arc Welder on the Modern Farm..... 2
2. Using the Farm Welder..... 4
 - Selecting the Arc Welder Selection of Welding Accessories
 - Care of the Welder and Accessories Selection of Electrodes
 - Care of Electrodes Safe Operation of Welding Equipment
 - Identification and Characteristics of Metals.
3. Planning and Equipping the Farm Shop..... 25
 - Large Shop Equipment Suggested Hand Tools Arrangement of Equipment.
4. Suggested Procedure in Welding and Cutting..... 38
 - Mastering Arc Welding Fundamentals Butt Welding Fillet and Lap Welds Using Carbon Arc Torch Soldering Welding in Vertical, Horizontal and Overhead Positions Arc Welding Cast Iron Cutting Cast and Steel and Piercing Holes.

PART II—REPAIR, ALTERATION AND CONSTRUCTION OF FARM EQUIPMENT

SECTIONS

1. Repairing Farm Equipment..... 48
 - Welding a Casting Building Machine Parts Welded Steel Bracket Drill Axle Welding Tips on Worn Plowshares
 - Building up Gear Teeth Sprocket Repair Plow Brace Broken Wheels Building-up Hitch Pin Holes Reinforcing Fenders
 - Building-up Worn Parts Hardsurfacing Wearing Surfaces of Large Holes Building-up Corn Picker Snapping Rolls Disk Bearings Cultivator Shanks Corn Picker Snapping Rolls Husking Bed Casting Cracked Motor Block Welding Spring-Tooth Harrow Teeth Mower Cutterbar Shoes Building-up a Worn Shaft Pump-Jack Tractor Transmission Case Tractor Seat Teeth on a Manure Spreader Beater Tractor Starter Switch Arm Manure Spreader Channel Beater Bar Blower Pipe
 - Welding Steel Gate Post Grain Box on Drill Cast Pulley
 - Drinking Cup Paddles Welding Chain Links Garden Rake
 - Galvanized Pail and Trough Repair Special Welded Repair Items Stanchion Eye.
2. Hardsurfacing Farm Tools..... 72
 - Selection of Hardsurfacing Alloys General Suggestions in Application of Hardsurfacing Alloys Plowshares Pointing and Hardsurfacing Plowshare and Cultivator Hardsurfacing.
3. Post-hole Diggers, Manure Loaders and Spreaders, Snow and Earth Moving Equipment..... 76
 - Rear-mounted Post-hole Digger Shop-made Post-hole Auger and Digger Rebuilding Post-hole Diggers Post-hole Digger Attachment to Manure Loader Simple Post-hole Digger Manure Fork Self-propelled Manure Loader Rebuilding Tractor-operated Loaders Manure Loader Manure Spreader Power Take-off Driven Manure Spreader Snowplow and Bulldozer Tractor-mounted Snowplow Snow Scoop Tractor Scoop Winch and Tractor Loader Fresno Scraper Leveling Scraper Hydraulic Operated Scraper Road Scraper or Blade Root Plow and Bulldozer Irrigation Ditcher Landplane Unloading Drag.
4. Tillage and Fertilizer Handling Equipment..... 102
 - One Section Pulverizing Harrow Duckfoot Cultivator Tractor-mounted Spring-tooth cultivator Plow Rake for Heavy Straw
 - Vine Lifters Remote Control Gang-shift for Disk Moldboard Plow Adaptations Disk Coupler for Moldboard Plow Rebuilding a Tractor Plow Plow Subsoiling Attachment Plow Depth