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Blowers,

Russell N.

1949

A GUIDE TO TEACHING MATERIALS FOR INDUSTRIAL ARTS

BY

RUSSELL N. BLOWERS

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

WESTERN KENTUCKY STATE COLLEGE
JULY, 1949

Approved:-

Major Professor and
Department of Education
Minor Professor
Graduate Committee

The Gencis Jones

ACKNOWLEDGEMENTS

The writer wishes to express his thanks and appreciation to the following persons who gave their sincere cooperation, their time and thought, in order that this study might be prepared:

To all the industrial firms and jobbers who gave of their time in order that they might answer the many letters mailed by the writer;

To Mr. L. T. Smith, Professor of Industrial Arts, for his aid, guidance, and constructive criticism,

To Dr. Lee Francis Jones, Professor of Education, for his helpful aid and guidance, and

To my wife, Lois, who rendered so much encouragement to the work of the writer.

CONTENTS

PREFACE		
CHAPTER		PAG
I	INTRODUCTION: - What prompted the study -	
	Statement of the problem involved - Scope of	
	the problem - Sources of data - Method of	
	investigation - Review of similar studies.	
II	AUTOMOTIVE MECHANICS	
	Books	5
	Booklets	6
	Bulletins	6
	Catalogues	7
	Charts	8
	Films	8
	Forms	10
	Manuals	10
	Publications	11
	Slidefilms	11
III	CERAMICS	
	Handbooks	13
	Pamphlets	13
	Films	13
	Folders	13
IV	DRAFTING	
	Books	14
	Booklets	14
	Bulletins	14

14

Catalogues

HAPPER		PAGE
	Charts	15
	Notebooks	16
	Films	16
	Manuals	17
	Publications	17
V E	LECTRICITY	
	Books	18
	Booklets	18
	Bulletins	21
	Catalogues	21
	Charts	21
	Data Sheets	55
	Films	23
	Folders	28
	Guide	28
	Handbooks '	28
	Instruction Sheets	29
	Manuals	29
	Publications	29
	Slidefilms	30
VI M.	ACHINE SHOP	
	Aids	34
	Blueprints	34
	Books	. 34
	Booklets	35
	Bulletins	37
	Catalogues	39

CHAPTER		PAGE
	Charts	41
	Circulars	42
	Data sheets	42
	Drawings	42
	Films	42
	Folders	52
	Handhooks	52
	Instruction sheets	53
	Manuals	54
	Problems	55
	Price sheets	55
	Project sheets	55
	Publications	= 55
	Slidefilms	56
VII META	AL WORK	
	Books	58
	Booklets	58
	Bulletins	62
	Catalogues	64
	Charts	66
	Circulars	68
	Films	68
	Folders	74
	Handbooks	75
	Instruction sheets	75
	Leaflets	76

CHAPTER		
	Manuals	PAG
	Pamphlets	7
	Publications	7
	Slidefilms	7
		7
VITT	Treatise PLASTICS	78
	Booklets	79
	Charts	80
	Data sheets	80
	Films	81
	Folders	82
	Instruction sheets	82
	Plans	.92
	Publications	83
IX P	RINTING	
	Booklets	84
	Films	84
	Leaflets	84
	Publications	84
X WE	ETDIAG	
	Books	85
	Booklets	
	Charts	85
	Films	85
	Folders	86
	Manuals	88
	Slidefilms	88
		0.0

CHAPTER		PAGE
XI	WOODWORK	
	Articles	91
	Blueprints	91
	Books	91
	Booklets	94
	Bulletins	98
	Catalogues	103
	Charts	105
	Circulars	107
	Discussions	108
	Films	108
	Folders	112
	Handbooks	113
	Instruction sheets	114
	Leaflets	115
	Manuals	116
	Notes	117
	Outlines	117
	Pamphlets	117
	Patterns	118
	Plans	122
	Posters	124
	Publications	124

129

129

130

133

Reports

Slidefilms

Technical notes

Work sheets

CHAPTER		PAGE
XII	CRAFTS	
	Archery	134
	Aviation	134
	Foundry	135
	Lapidary	135
	Leather	135
	Plumbing	136
	Reedcraft	136
	Ship modeling	136
	Silk screen	136
	Soap sculpture	136
XIII	SUMMARY AND CONCLUSION	137
	Bibliography	139
	Appendix A	140
	Appendix B	141

CHARTS

CHAR	T						PAGE
1	Tabulated Industry	Growth	of	Educational	Departments	in	138

CHAPTER I

INTRODUCTION

The purpose of this study has been well recognized by the writer. It is the desire of the writer to clarify these purposes to the reader. Shop teachers have long recognized the fact that educational materials are available for the asking, or at a small fee from various manufacturers, jobbers, and agencies of school shop supplies and equipment. This material in most cases can be secured by the teacher simply by writing a letter on school stationery to the concern involved. However, the difficulty in most cases is that the teachers do not know where the material can be secured, or they do not have access to listings of such materials. Knowing this to be true through several years of teaching experience, the writer hopes to make available a compiled listing to the industrial arts teachers which will meet this problem.

Through research in the field of industry it has been found that a large amount of material such as films, catalogues, books, booklets, pamphlets, charts, instruction sheets, job sheets, etc. which can be secured as educational aids are available to the teacher.

Teaching aids are published by industry for the specific purpose of advertising their particular product to the public. This objective of industry can very well be obtained by industry in cooperation with the schools of the nation. It is also of great benefit to the schools. Thus industry through the school is contributing to community growth through the savertising of their

products as educational materials.

What Prompted the Study

This study, "A Guide to Teaching Materials for Industrial Arts," was prompted by the fact that the writer is concerned with teaching aids available to the shop teacher in the field. Several years teaching has brought the writer face to face with the problem of supplementary teaching materials. Knowing that complete listings of teaching aids for the teacher are not available, the writer determined to make available such a listing which would be most beneficial to the shop teachers.

Statement of the Problem Involved
The problem is fourfold:

- 1. To catalogue industrial arts teaching aids.
- 2. To determine the extent of the educational departments in the industrial firms.
- 3. To determine the free and low cost teaching aids made available for the industrial arts teacher.
- 4. To educate the teacher and the pupil as to the materials available and thus educate them to better buying.

Scope of the Problem

This study involves the leading manufacturers, dealers, and agencies of industrial arts supplies and equipment which the author could locate. Without a doubt some have been overlooked

for the writer does not surmise that he knows all such agencies. Constant changes are occuring in the industrial field which makes a complete study impossible.

Sources of Data

The information in this study was obtained by means of a letter mailed direct to jobbers, manufacturers, and other agencies. Replies were tabulated as they came in.

Method of Investigation

Realizing the wide scope of the problem and the time limit, the writer attempted the organization of the study in the following manner:

- All listings of manufacturers, jobbers, and agencies of school shop equipment and supplies were secured and compiled.
- This list was flexible and from time to time additional addresses were added.
- 3. Letters were sent to each address on school stationery along with a self-addressed envelope.²

The objective was to secure a list of teaching aids available. As replies were received certain information was recorded on index cards and filed alphabetically according to the type of aid available and as to the firm. The letters received from firms were also filed alphabetically. Numerous letters of correspondence were exchanged with many firms during a period of three

Names of the cooperative firms appear in the Appendix B.

A copy of the letter mailed to the field appears in the Appendix A.

years. It is the writer's opinion that this is probably the most recent, up-to-date listing available for teaching aids in the field of industrial arts.

Review of Similar Studies

One study of a similar nature was located which investigated teaching aids for metal-working classes. 3

Mr. Gunderson's study, "An Annotated and Evaluated List of Industrial Teaching Aids for Metal-Working Classes," deals only with one phase of the industrial arts field, metalwork. Mr. Gunderson's approach was somewhat the same as mine in that he secured his material in the same manner and tabulated results on index cards.

Other comparable research studies may be listed as follows:

Educational Film Catalogue, H.W. Wilson Company, New York City, 1939, 332 pages.

Groneman, Chris H. <u>Teaching Materials for Industrial Education</u>, Industrial Arts and Vocational Education, Volume 28, No.7, 272-278 pp., September 1939.

Hogan, Howard K. A Bibliography of Textbooks and Trade List in the Field of Machine Shop Practice and Related Subjects. State of West Virginia, Department of Education, Vocational Division Trade and Industrial Teacher Filming, February 14, 1938, 16 pp.

Kitson, Harry Dexter and Lingerfelter, Mary Rebecca, Vocational Guidance Through the Library, American Library Association, Chicago, Illinois, 1936, 36 pp.

Miller, Bruce, Sources of Free and Inexpensive Teaching Aids. Mimeographed. Bruce Miller, Principal Ontario Junior High School, Ontario, California, 1939, 77 pp.

Harry Gunderson, An Annotated and Evaluated List of Industrial Teaching Aids for Metal - Working Classes, Master of Arts thesis, Indiana University, Bloomington, Indiana, 1940.

CHAPTER II

AUTOMOTIVE MECHANICS

Bo	0	k	S	-

Keystone Reference Book. The use and care of cutting tools.

Keystone, Reamer and Tool Company

How to Repair Valve Seat Cracks. A new mechanical method of valve repair. Copyrighted 1946.

Kerling and Company

How to Revair and Outside Freeze Crack, excellently illustrates repair with good explanations.

Portable Grinding, No. 1328. Norton Company

**

Spark Folder, No. 1742.

Setting-Up Metal Polishing Wheels and Belts, No. 1340.

The ABC of O.D. Grinding, No. 2006.

Mounted Wheels and Mounted Points, No. 43.

A Primer on Grinding Wheel Safety,

From the Far Corners of the Earth, No. 506.

Lessons in Grinding, No. 1716

The Motor Trucks and Bus Driver's Scovill Manufacturing Company Handbook.

Safety Instructions for Cranes, Industrial Trucks, Elevators and Pan Pullers.

Do It with a Puller, Form SS3S-22M. Snap-On Tools Corporation

Snap-On Puller Questionnaires. Form SS4S-5M.

Form S-105 (KS).

Selling Points of the Blue-Point

1 Addresses of companies Appendix B

Boxocket, Form S-104 (KS).	Snap-	On Tools	Corporation
Snap-On Vacuum Grip Pliers Question- naires, Form S-107 (KS).	tt	11 11	11
Selling Points of Vacuum Grip Pliers, Form S-108 (KS).	"	11 11	11
Snap-On Punches and Chisels Question- naires, Form S-107 (S).	"	11 11	11
Selling Points of the Blue Point Punches and Chisels, Form S-106.	"	u	11
Snap-On Socket Wrench Questionnaire.	"	11 11	"
Selling Point of the Snap-On Socket Wrench Set, Form S-102 (Ks).	"	11 11	H
Booklets			
ABC of Spray Painting Equipment Very fine descriptive material on the art of spray painting.	The D	eVilbiss	Company
Bulletins			= :
Instructions for Operating and Parts Price List. Model 400 Universal Liversal Desired Machine.		Tools,	Incorporated
Instructions and Parts Price List.			
Seven Inch Precision Shaper.	"	п	N
Honing Machine, Wet and Dry.	11	"	11
Honing Machine, Wet and Dry.	11	"	н
Honing Machine, Wet and Dry. Wet Honing Machines.	11	n u	H 11
Honing Machine, Wet and Dry. Wet Honing Machines. Dry Honing Machines.	11	11 11	11 11
Honing Machine, Wet and Dry. Wet Honing Machines. Dry Honing Machines. Honing Heads.	11 11 11	11 11 11	# # # # # # # # # # # # # # # # # # #
Honing Machines. Wet Honing Machines. Dry Honing Machines. Honing Heads. Small Bore Hone.	11	" "	11 12 11 11
Honing Machines. Wet Honing Machines. Dry Honing Machines. Honing Heads. Small Bore Hone. Cylinder Surfacing Hone.	11 11 11 11	11 11	11 11 11 11
Honing Machines. Wet Honing Machines. Dry Honing Machines. Honing Heads. Small Bore Hone. Cylinder Surfacing Hone. Self-Lubricating Hone.	11 11 11 11	" "	11 12 11 11 11

AMMCO Tools, Incorporated Universal Line Boring Machine. Oversize Surfacing Hone. 11 11 Seven Inch Precision Shaper. Kerling and Company K & W Metallic Seal. K & W Radiator Seal. K & W Waterless Soap. K & W Metal Applicator. K & W Metal Applicator and Electrode Holders. K & W Electro-Mechanical Kit. K & W Pneumatic Peening Hammers. Catalogs. -Blackhawk Catalog, with Index. Blackhawk Manufacturing Company Catalog, illustrates mechanics Champion De Arment Tool Company hand tools. Catalog, illustrates and explains Dake Engine Company arbor and hydraulic presses. K-D Manufacturing Company Auto-Service Tools Catalog. Catalog, No. 24, explains auto . tools and accessories, 1948, 23 pp. U. S. Government Printing Office Fundamentals of Automotive Mechanics, an Applied Course, 1942, 51 pp., (War Department Pre-induction Training Course, No. 202),.10¢, No.W1.40:202. 11 Pre-induction Vocational Training in Auto-Mechanics, 1943, 17pp., (War Department, Preinduction Training Course, No. 331), .10 d, No. W1.40:331. Automobile Mechanics, 1945, 18pp., Price list No. 33, .10d, No. L 23.842.

The Bridgeport Hardware Catalog, automobile parts catalog Manufacturing Corporation with price list. The Dallet Company Catalog, consists of a series of bulletins bound into one binder. The Nolvex File Company Catalog, illustrates body file work and items used for body and fender work. Charts. -Coated Abrasives for Finishing Metal Behr-Manning Corporation <u>Uses</u>, (14"x18"), contains mounted samples with explanations, free. Films. -Keeping Your Ear Fit, OE-488, 12 Castle Films minutes, sound, black and white, 16 mm. Know Your Car, OE-486, 15 minutes, sound, black and white, 16 mm. The Periodic Checkup, OE-489, 18 minutes, sound, black and white, 16 mm. Trouble Shooting Your Car, OE-490, 12 minutes, sound, black and white, 16 mm. 18 Your Driving Habits, OE-487, 15 minutes, sound, black and white, 16 mm. The Battery, Ignition, and Electrical Systems, OE-462, 26 minutes, sound, black and white 16 mm. The Clutch and Hand Brake, OE-482, 12 minutes, sound, black and white, 16 mm. Steering Wheel, Front and Rear Axles, OE-484, 19 minutes, sound, black and white, 16 mm.

Transmission, Drive Shaft, and Differential, OE-485, 14 minutes, sound, black and white, 16 mm.	Office	of	Education
Trouble Shooting Problems, Fuel Induction, OE-276, 16 minutes, sound, black and white, 16 mm.	"	"	"
Trouble Shooting Problems, Ignition, OE-275, 19 minutes, sound, black and white, 16 mm.	"	"	"
Trouble Shooting Problems, Mechanical and Lubrication, OE-274, 10 minutes, sound, black and white, 16 mm.	. "	"	11
The Cooling System and Fuel System, OE-464, 22 minutes, sound, black and white, 16 mm.	"	"	н
Disassembling the Engine, OE-268, 13 minutes, sound, black and white, 16 mm.	"	"	u
The Engine Assembly, OE-463, 19 minutes, sound, black and white, 16 mm.	"	"	"
Engine Tests and Tune Up, OE-465, 18 minutes, sound, black and white, 16 mm.	11	"	n
The Hydraulic System, OE-483, 12 minutes, sound, black and white, 16 mm.	"	"	п
Inspecting and Reconditioning Piston Assembly, OE-263, 22 minutes, sound black and white, 16 mm.		11	"
Inspecting and Reconditioning Valve Assembly, OE-264, 25 minutes, sound black and white, 16 mm.	,	11	25
Introduction to Preventive Maintenance OE-461, 12 minutes, sound, black and white, 16 mm.	, "	"	N
Overheuling Camshaft Assembly and Crankshaft Section, OE-270, 19 minutes, sound, black and white, 16 mm.	"	11	tā.
Overhauling Crankshaft Assembly, OE-269, 19 minutes, sound, black and white, 16 mm.	11	"	п

Overhauling the Carburetor, OE-267, 23 minutes, sound, black and white, 16 mm.	U. S. Office of Education
Reassembling the Engine, OE-271, 22 minutes, sound, black and white, 16 mm.	" " " "
Removing and Inspecting Cylinders, OE-262, 18 minutes, sound, black and white, 16 mm.	" " " "
Servicing and Timing Magnetos, OE-266, 16 minutes, sound, black and white, 16 mm.	
Servicing Spark Plugs and Ig- nition Wiring, OE-265, 22 minutes, sound, black and white, 16 mm.	и и и и
Automobile Lubrication, No.151, 1 reel, silent, black and white, 16 mm.	ਹੈ. S. Bureau of Mines
Forms	
Heller Automotive Tools, Form No. 154.	Heller Brothers
Manuals	
Training Manual on Automotive Brakes, excellent instructive manual on brakes.	Barrett Equipment Company
Valve Service Manual, primarily a maintenance manual for Ford automobile motors.	K-D Manufacturing Company
Instruction Manual, excellent instructive manual in motor block and head repair, 28pp, copyrighted 1946, free.	Kerkling and Company
Motor's Auto Repair Manual, \$5.95.	Motor Book Department
Truck Repair Manual, 8.00.	15 11 44
Flat Rate Manual, 7.00.	

Publications				
Mechanic, Automobile. Price List 33, 1945, 11 pp, .05 ¢ Wl.63:80.	U. S.	Office	of F	Education
Automobile Mechanic, price list 33, 1947, 6 pp, .05¢ L7.32Au8.	"	"	"	"
Automobile <u>Mechanic</u> , (5-81.010) 1947, 4 pp, .05¢, L7.32/2: Au8.	u	"	"	"
Automobile Mechanic, 1945, 14pp., (War Department Occupational Brief 80) .05¢ Wl.63:80.	"	п	11	"
Automotive Engineer, 1945, 12 pp, (War Department Occupational Brief 14) .05 Ø W1.63:14.	"	"	11	п

Slidefilms. -

Kit A	The	Jam	Handy	Organization
1 Frainc Throatin 20 mintures	11	11	11	11
1. Engine Tune-Up, 32 pictures. 2. The Engine, 49 pictures.	11	11	11	"
3. The Down-Draft Carburetor,	"	11	11	11 -
Part I, 58 pictures. 4. The Down-Draft Carburetor,	"	11	"	"
Part II, 40 pictures. 5. The Up-Draft Carburetor,	"	"	11	ıı.
51 pictures. 6. Modern Valve Reconditioning,	11	11	11	"
55 pictures. 7. The Cooling System, 37 pictures.	"	11	11	11
Kit B				
1. The Syncro-Mesh Transmission,	"	11	11	н
151 pictures. 2. The 4-Speed Transmission,	11	11	"	"
65 pictures.	17	11	11	11
3. The Clutch, Part I,51 pictures.	11	11	11	11
4. The Clutch, Part II, 51 pictures. 5. The Hypoid Rear Axle,	"	11	11	п
105 pictures. 6. The Full-Floating Rear Axle,	11	11	11	ti .
Part I, 38 pictures. 7. The Full-Floating Rear Axle,	11	11	11	II .
Part II, 57 pictures. 8. The 2-Speed Rear Axle, 80 pictures.	"	- 11	11	II .

1. Knee-Action, Part I, 27 pictures.	The	Jam	Handy	Organization ²
2. Knee-Action, Part II, 60 pictures.	11	11	11	"
3. Knee-Action, Part III, 53 pictures.	11	11	"	n
4. Hydraulic Brakes, 68 pictures.	11	11	"	"
5. Vacuum Power Brakes, 45 pictures.	"	11	11	"
6. Shock Absorbers, 61 pictures.	n	"	"	11
7. The Steering Gear, 103 pictures.	11	"	"	п
0. Wheel Alignment.	11	11	"	"
62 pictures, (Conventional Axles).				
9. Wheel Alignment, 49 pictures, (Dubonnet type	"	"	"	"
10. Wheel Alignment. (1939 knee	п	11	"	"
action), 52 pictures. 11. Wheel Balancing, 69 pictures.	11	"	11	II .
Kit D				
				z.
1. The Wiring System, 44 pictures. 2. The Ignition System, 76 pictures.	"	"	11	11
76 pictures.	"	"	"	"
3. The Generator Regulator, 69 pictures.	"	11	"	п
Kit E				
1. The Vacuum Gearshift, 72 pictures.	"	11	11	"
2. Cab Over Engine Trucks, 63 pictures.	"	11	"	
3. Metal Bumping and Hot Shrinkage 52 pictures.	11	11	и	u
4. Major Body Repairs, 67 pictures.	"	11	"	n
5. Turret Tops, Part I, Repair, 59 pictures.	11	"	11	
DE PICCUPES.				
6. Turret Fops, Part II, replacement, 138 pictures.	11	"	11	H

Jam Handy Individual Films \$3.50, Complete Kit Set \$99.00.

CERAMICS

Handbooks. -

Handbook of Modeling and Pottery American Art Clay Company Craft, excellent book dealing with ceramics.

Pamphlets. -

Pamphlet of Ceramic Supplies.

Films. -

Pottery Making, No. 235, shows a professional potter shaping, trimming, and firing.

Folder. -

The Urge To Make, a discussion Related Arts Service on arts and crafts.

DRAFTING

-					
B	-	2	100	0	_
-	u	U	27	0	

Fundamentals of Mimeograph Stencil Duplication, fifteen lessons on duplicator instructions.

A. B. Dick Company

Booklets. -

Use and Care of Drawing Instruments, instructive exercises, 1945, 32 pp.

Eugene Dietzgen Company

Techniques, best methods of sketching, 38 pp. .50¢.

Higgins Ink Company, Incorporated.

Script and Manuscript, script lettering in theory and practice, 32 alphabets, .50d.

Cartooning, \$1.00.

Arts and Crafts Projects, ten projects on desirable arts and crafts subjects. 01.00.

Higgins Color Card Actual colors of Higgins American Drawing Inks applied to white drawing paper. Free.

History of Ink, Free.

Ink Sketching, Free.

Bulletins. -

Modernizing Instruments, by Jennie R. Zachs, 1946, a discussion on plastic drawing instruments.

C-Thru Ruler Company

What, Why and How, essential facts Norton Company about grinding, No.1944.

Lecture Course on Grinding, No. 902.

How to Increase Tool Life, No. 986.

Catalogues					
General Catalogue on Transparent Drawing Instruments.	C-Thru R	uler Comp	pany		
Catalogue and Price List, 23 pp. free.	Engineering Manufacturing Company				
Catalogue, describes drawing materials.	F. Weber	Company			
Norton Floors, No. 1935.	Norton C	ompany			
Architecture, Price list 55, 1932, 10 pp.,.05 & No.I 16.44:10	U.S. Off	ice of Ed	lucation		
Catalogue, descriptive catalogue on drafting machines and drawing instruments.	V and E	Manufactu	ring Company		
Charts					
Basic Problems in Industrial Design, chart illustrates ellipse, perspective circles, perspectives, isometrics, shades and shadows.	Eberhard	Pencil 0	ompany		
Basic Standards in Mechanical Drafting, chart illustrates lettering, titles, dimensions, sections and breaks, screw threads, view placement.	п	II	ıı		
Standard Woodworking Joints, illustrates 60 various joints in carpentry, jointery, millwork, and cabinet-making.	и	n	H		
Standard Symbols in Electronic and Radio Engineering, illustrates 102 symbols.	"	п	n		
Standard Symbols for Plumbing, Piping and Valves.	II.	ıı	u		
Standard Symbols for Wiring Plans.	ıı	и	tt .		
Elements of Modern House Design.	11	11	н		

Standard Techniques in Forming Letters.

Lettering Charts.

Eugene Dietzgen Company

Lettering Charts, six large wall charts Nos. 1 to 6 which illustrates how to letter and several styles of letters.

C. Howard Hunt Pen Company

Notebooks .-

Association notebook of mimeograph A. B. Dick Company tracing pages showing over 400 illustrations which can be used on many various school activities copyrighted 1947.

Producing the School Yearbook, helpful hints and aids for the school attempting its own yearbook publication, copyrighted 1939.

Films. -

Measurements and Measuring, 50 The Jam Handy Organization 1 pictures, part I, \$4.50. Measurements and Measuring, part II, 64 pictures, \$4.50. Scales and Models, 80 pictures, \$400. Addition and Subtraction in Geometry,51 pictures,\$4.00. Multiplication and Division in Geometry, 48 pictures, \$4.00. Angular Measurement, 68 pictures, \$4.00. Constructions, 57 pictures, \$4.00. T Squares and Triangles, part I, 31 pictures. T Squares and Triangles, part II, 60 pictures. Geometric Construction, part I,
43 pictures. Geometric Construction, part II, 36 pictures. Drawing an Anchor Plate, 25 pictures. Layout Work, part I, 112 pictures. 11 Layout Work, part II, 133 pictures. Slotted Anchor Plate, 60 pictures. Lavout Tools and Measuring In-struments, 96 pictures. Plotting Graphs, 62 pictures, \$4.00. Analytic Geometry, 62 pictures, \$4.00.

¹ Jam Handy Individual Kits \$3.50, Complete Kit \$55.50.

Behind the Shop Drawing, 2 reels, \$66.00.	The Jam Han	dy Organization
Manuals. 4		
How to Sell, combines selling of drawing equipment with the C-Thru product.	C-Thru Rule	r Company
Drafting Standards, Accepted and Proposed, 30 pp.	Higgins Ink	Company, Inc.
Ditto Writing and Drawing Materials.	Ditto, Inco	rporated
How to Make Ditto Direct Process Masters, K-5.	"	11
Hints on School Newspapers.	. "	"
How to Construct and Use Objective	II .	11
Ditto Workbook.	n	II.
Publications		
Architect, price list 33, 1945, 10 pp05¢, W 1.63:5.	U.S. Office	of Education
Architect, 1945, 10 pp, War Department (Occupational Brief 5).05¢, W1.63:5.	11 11	n
Layout Man 1 (Aircraft manufactur- ing) (4-80-022), Dec. 5, 1944, 5pp., .05 p. Pr 32.5228: L45/3.	11 11	п
<u>Draftsman</u> , price list 33, 14 pp., .05¢, W1.63:83.	11 11	
Draftsman, Architectual, price list 33 (0048.05) No.L7.32:D78.	п п	ıı

ELECTRICITY

B	0	0	k	8		-
-	~	\sim	**	\sim	•	

Modern Engine Tune-Up, \$6.00.

Radio Formula and Data Book. 37-752, .10¢.

Manual of Simplified Radio Servicing, 37-755, .10 &.

A Dictionary of Radio Terms, 37-751, .15%.

Radio Builder's Handbook, 37-750, .15 ¢.

Radio Circuit Handbook, 37-753, .25 d.

Radio Data Handbook, 37-754, . 25 d.

Coil Winding Calculator, 37-955.

Parallel Resistance, 37-960, .25 g.

Audio Amplification.

The Oxy-Acetylene Handbook, 587 pp., basic manual on cutting and welding and their related processes, \$1.50.

Electricity, (textbook).

Electrical Instruments, 53 pp., .50 g.

Booklets. -

Simplified Guide to A-C Motor Control.

Sintered - Alnico Magnets.

Things I've Been Thinking About.

Allen Electric and Equipment Company

Allied Radio Corporation

и и и

Concord Radio Corporation.

The Linde Air Products Company

The Wiremold Company

Westinghouse Electric Corporation.

General Electric Company

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The Story of Research.	General	Electric	Company
The Story of Lightning, (APB-24).	· · ·		11
How Electronic Tubes Work, (ETI-6).	"		п
Laboratory and Ship Equipment.	11	11	"
Romance of Electricity, (GEB-131).	ıı	11	11
Story of G-E Research, (APB-23).	ti .	11	"
Story of Steinmetz, (GEB-104).	11	"	11
Story of the Turbine, (APB-17).	"	н	"
The Story of X-ray, (APB-16).	II	11	11
Careers in the Electrical Industry, (APD-2-1).	n	н	"
Primer of Electronics, (GED-1068).	11	11	11
Generation of Electricity, (GEC-174).	11	11	"
Uses of Electricity, (APG-17).	17	"	11
Distribution of Electricity, (APG-17-1).	"	п	"
Electricity in Railroading, (APG-17-4).	"	"	н
Adventures in Jet Propulsion.	"	11	"
Fundamentals of Motors.	ıı	11	"
Construction Data for & Single Phase Industrial Motors.	IJ	"	"
Thy-Mo-Trol.	11	"	11
Thyratron Motor Control.	11	"	11
The ABC's of Radio (175-3012) 68 pp., -25 g.	n .	11	11
Electronics-Its Start From the Edison Effect, (E-2).	11	11	"
Details of Television Station WRGB (EBT-9).	ıı	11	п

20 Electronics, A New Science for A General Electric Company
New World (GED-1028B). 11 11 Visual Alignment Technique for FM Servicing (ESD-121). Home Lighting, price .50 g. Illuminating Engineering Society Industrial Lighting, price .25 d. Office Lighting, price .50 d. School Lighting, price .50 d. Street and Highway Lighting, price .50 ¢. Safety Illustrated. Leeds & Northrup Company Safety Rules for Outside Motor Scovill Manufacturing Company Vehicles Operated on Properties of Scovill Manufacturing Company. 11 Rules, Procedures and Safety Instructions for Electrical Employees, Jan., 1947, 40 pp. Electric Shop Equipment Booklet. Standard Electric Time Company The Storage Battery, Its Fundamentals, Use and Maintenance. The Electric Storage Battery Company Carbon Arc Welding, explanation The Hobart Brothers Company and illustrations of the carbon are, 34 pp., .50¢. Hobart Vest Pocket Guide to Better Welding, hints, short cuts, and tables which are used by welders, 30 pp. Testing for Safety, explains the Underwriters Laboratories,

organization, purposes and methods of Underwriters Laboratories, Inc., copyrighted 1945, 35 pp.

Convenient Tables and Formulae, single copies free, 28 pp.

Suggestions for Teaching Selected Material From the Field of Electricity, mono-Fraph No. 3.

Incorporated

Westinghouse Electric Corporation

Weston Electrical Instrument Corporation

Bulletins. -

Arc Welding Cast Iron, D-2-b.

Arc Welding Aluminum, D-3-b.

Arc Welding Stainless Steels, D-6-b.

Arc Welding Monel Metal and Nickel, D-9-a.

A Primer on Grinding Wheel Safety, Norton Company No. 474.

Construction of Electrical Furnaces for the Laboratory, No. 458.

Catalogues. -

Radio Parts Catalog.

Fundamentals of Electricity, a basic course, 1942, 46 pp., (War Deparmtnet Pre-induction training course 101).10¢, W1.40:101

Catalogue and Wiring Guide.

Teaching Aids Catalogue.

Charts. -

Spark Characteristics Chart, Norton Company No. 176.

Two Charts, one showing the graphical solution of Ohm's Law problems and the other a cut away view of a rheostat and resistor.

Safe Practices in Use and Maintenance of Low-voltage Electrical Equipment; Industrial safety charts, series K, Nos.1-6(1945) 11.1x43.14", Labor Standards Division, .05¢, L16.8:1/11.

Arc Welding Manganese Steel, D-1-b. The Hobart Brothers, Company

General Cement Manufacturing Company

U.S. Office of Education

The Wiremold Company

Westinghouse Electric Corporation

Ohmite Manufacturing Company

U.S. Office of Education

Storage Battery Chart.	The Electric Store	age Battery
Instrument Mechanism Wall Charts on Voltimeters and Ammeters.	Weston Electrical ment Corporation	Instru-
Notebook size version of the Mechanism Wall Chart, E-4-a.	" "	"
Data Sheets		
Experiments With Light, .25 ¢.	Illuminating Engin	eering
Chapters on Light, .25¢.		'
Lessons in Practical Illumination, .25 ¢.	" "	
Lessons in Practical Home Illumination, .25 d.	11 11	
Lighting Design Problems Course, \$1.50.	11 11	
Illuminating Engineering Nomen- clature and Photometric Standards (1941) .50 ¢.	11 (1	
Standard Method for Measuring and Reporting Illumination from Artificial Sources in Building Interiors, .10 g.	11 11	
Lighting Performance Recommendations for Portable and Installed Residence Luminaires, .50¢, July 1946.	н н	
Actual Installations With Engineer- ing Data, yearly series, 24 sheets each, series 8 to 12 available at \$1.00 per series.	11	
Standards of Quality and Quantity for Interior Illumination, .50%.	" "	
Electric Equipment, No. 9.	National Safety Co	uncil
Cutting Implements, No. 6.	11 11	11
Lifting, Carrying and Lowering, No. 7.	" "	m .
Hand Tools, No. 15.	u u	11

Magic of Fluorescence.

Exploring with X-rays.

Life of Thomas A. Edison.

The Worlds Largest Electrical
Workshop.

Naturally It's F.M.

¹ All General Electric films can be secured for the cost of transportation.

The Story of Electricity, a documentary story dealing with persons and events leading up to the development of modern electricity, sound, \$40.00.	Know	ledge E	Buil	ders
OE-112, 19 minutes, sound, black and white, 16 mm.	U.S.	Office	of	Education
Pulling and Installing Cable and Packing Terminal Tubes, OE-113, 16 minutes, sound, black and white, 16 mm.	"	"	ii	"
Laying Out and Installing Main Wire Ways, OE-111, 21 minutes, sound, black and white, 16 mm.	n .	"	"	. "
Making a Five Tuck Splice, OE-143, 26 minutes, sound, black and white, 16 mm.	"	и	"	"
Making a Wrapped and Soldered Splice, OE-144, 15 minutes, sound, black and white, 16 mm.	n .	"	11	n
Joining Solid Conductors, OE-369, 22 minutes, sound, black and white, 16 mm.	"	ı	18	11 -
Soldering Lugs and Splicing Stranded Conductors, OE-371, 18 minutes, black and white, sound, 16 mm.	"	11	"	11
Wire Sizes and Voltage Drop, OE-372, 13 minutes, sound, black and white, 16 mm.	· ·	"	"	н
Procelain Protected Surface Wiring, OE-376, 19 minutes, sound, black and white, 16 mm.	"	"	11	н
Three-Wire Service Entrance, OE-374, 24 minutes, sound, black and white, 16 mm.	n	п	"	и
OE-380, 22 minutes, sound, black and white, 16 mm.	"	n	"	11
Roughing-In Nonmetallic Sheathed Cable, OE-373, 24 minutes, sound, black and white, 16 mm.	"	"	"	ч

Cable Surface Wiring, OE-377, 17 minutes, sound, black and white, 16 mm.	U.S.	Office	of	Education
Preparing Old Buildings for Wiring, OE-378, 21 minutes, sound, black and white, 16 mm.	"	11	"	ıı
Wiring Old Buildings with Armored Cable, OE-379, 22 minutes, sound, black and white, 16 mm.	"	"	"	"
Electrical Circuit Faults, OE-375, 19 minutes, sound, black and white, 16 mm.	11	u	11	11
Single Phase and Polyphase Circuits, OE-383, 17 minutes, sound, black and white, 16 mm.	"	11	11	"
Rotating Magnetic Fields, OE-384, 13 minutes, sound, black and white, 16 mm.	11	"	ti	"
Squirrel-Cage Rotor Principles, OE-385, 10 minutes, sound, black and white, 16 mm.	ıı	"	"	11
Split-Phase Motor Principles, OE-386, 17 minutes, sound, black and white, 16 mm.	. "	11	"	"
Repulsion Motor Principles, CE-387, 18 minutes, sound, black and white, 16 mm.	u	11	"	ıı
Direct Current Controllers, OE-388, 15 minutes, sound, black and white, 15 mm.	"	n	"	п
Across-The-Line Starters, CE-389, 15 minutes, sound, black and white, 16 mm.	. 11	"	"	н
Reduced Voltage Starters, OE-390, 23 minutes, sound, black and white, 16 mm.	tt	"	"	"
Wound Rotor Controllers, CE-391, 17 minutes, sound, black and white, 16 mm.	21	"	"	"
Installing Conduit, CE-381, 25 minutes, sound, black and white, 16 mm.	"	"	11	u

- Power Bending Conduit, OE-382, 17 minutes, sound, black and white, 16 mm.
- <u>D.C. Motor, Part I, Mechanical</u> Overhaul, OE-392, 20 minutes, sound, black and white, 16mm.
- D.C. Motor, Part II, Rewinding, OE-393,37 minutes, sound, black and white, 16 mm.
- Split-Phase Motor-Rewinding, OE-394, 28 minutes, sound, black and white, 16 mm.
- Three-Phase Motor, Part I,

 Preparing to Rewind, CE-395,
 17 minutes, sound, black and
 white, 16 mm.
- Three-Phase Motor, Part II, Rewinding, OE-396, 17 minutes, sound, black and white, 16mm.
- Repulsion-Induction Motor-General Overhaul, OE-397, 25 minutes, sound, black and white, 16 mm.
- Crimes of Carelessness, depicts fires caused by thoughtless smoking and the misuse of electricity, 10 minutes, Rental \$1.50, sale price\$20.00.
- Rental \$1.50, sale price \$9.60, demonstrates protective clothing and equipment for welders to prevent injuries.
- Basic Installation Methods, elementary wiring installation.
- Elementary Electricity Amperes, Volts, and Ohms, MN-1540W, 1945, sound, black and white, 8 minutes, 16 mm.
- Elementary Electricity. Current and Electromotive Force, MN-1540t, 1945, 11 minutes, sound, black and white, 16 mm.

- U.S. Office of Education
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- 11 11 11 11
- The Princeton Film Center

M.K.M. Hill

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Motion Picture Section Office of Public Information

Inductance, (2 parts), MN-1540b, 1943, " 33 minutes, sound, black and white, 16 mm.

Oscillators, MN-1540i, 1945, 13 minutes, sound, black and white, 16 mm.

U.S. Navy Department

The Triode: Amplification, OE-177, U.S. Office of Education 14 minutes, sound, black and white, 16 mm.

The Radio Man Fights, MN-2621a, 1944, U.S. Navy Department 7 minutes, sound, black and white, 16 mm.

Radio Shop Techniques, MN-1540e, 1943, 37 minutes, sound, black and white, 16 mm.

Electricity, illustrates testing conducted at the laboratory, sound, 30 minutes, 16 mm.

Underwriters Laboratory

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Electronics at Work, 20 minutes, sound, black and white, 16 and 35 mm.

What is Electricity, 20 minutes,

35 mm. Adventures in Research, 20 minutes, sound, black and white, 16 and

sound, black and white, 16 and

Commutation of D.C Machines, 24 minutes, sound, black and white, 16 mm.

35 mm.

Dawn of Better Living, 16 minutes, sound, 16 and 35 mm.

Radio Frequency Heating, 40 minutes, sound, 16 mm.

Unsung Heroes, 30 minutes, sound, 16 mm.

Westinghouse Electric Corporation

Folders. -

Radio Instruction Course, consisting of twenty-five lesson folders and four wall charts, \$3.75.

Radio Instruction Course, consisting of forty lesson folders and four wall charts, \$4.50.

Sylvania Electric Products

Guides. -

Hints to Help Make Motors Last.

Handbooks. -

Allied Radio Data Handbook, .10 d.

Dictionary of Radio Terms, .15¢.

Radio Builder's Handbook, .15¢.

Radio Circuit Handbook, . 25 ¢.

Radio Data Handbook, .25 d.

Portable Electric Quick Saw Hand-book, copyright 1946, 20 pp. Black and Decker Manu-facturing Company

Power Assembly Tools, copyright 1941. 58 pp.

Portable Electric Tools, copyright 1941. 63 pp.

IES Lighting Handbook, one volume Illuminating Engineering of technical and scientific light- Society ing data and knowledge, \$7.50.

Handbook of Residential Wiring Design, .25 d.

Handbook of Farmstead Wiring Design, .40 d.

Discussion of National Electrical U.S. Office of Education Safety Code, 1944, 162 pp., (National Bureau of Standards Handbook 39), Cloth .75%, C 13.11:39.

Westinghouse Electric Corporation

Allied Radio Corporation

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Black and Decker Manufacturing Company

Black and Decker Manufacturing Company

U.S. Office of Education

Electronics, (GEA-4309).

Radio Operator I (0-61.30), June 1947, 6 pp.,.05¢, L7.32:R12.

Radio Repairman I (5-83.411), Oct. 1947, 6 pp.,.05¢, L7.32:R12/2.

Electric Refrigerator Serviceman (5-83.031), Oct.13, 1944, 4pp., .05¢, Pr 32.5228: El 2/2.

U.S. Office of Education

Electric Truck Operator (7-88.410), June 1947, 4 pp.,.05¢ L7.32:El 2/2.

Electrician I (4-97.010) electrical repairman I (4-97.320), June 1947, 4 pp., .05¢, L7.32/2:El2.

Lineman 4 (5-53.420), June 1947, 6 pp., .05¢, L32.:64/2.

Slidefilms. -

Ten Checks of Electrical Control

Maintenance, 35 mm., 14 minutes,
black and white, sound slide
film. (33 1/3 r.p.m. turntable).

Course-Electrical Measuring Instruments, entire course includes one complete set of films and records, one instruction manual, and course text booklets for a class of twenty, \$26.00, booklets .25 ¢ each.

Course-Radio Frequency Heating, complete course for a class of twenty; includes instruction manual, lesson booklets, sound slide films, and tests, \$185.00.

Course-Resistance Welding Control, comprises seven separate lessons each covered by an individual slide film and a lesson book. Class of twenty \$50.00.

Electronics at work, a complete course of ten parts, slide films \$50.00, complete course \$100.00.

Four-in One Guv, 35 mm., 25 minutes, 33 1/3 r.p.m. turntable, Service man on calls.

Westinghouse Electric Corporation

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How to Make Electrical Farm Equipment Last for the Duration, 33 1/3 r.p.m. turn- table, 35 mm, 15 minutes.	Westing Corpora	Electric	
Proper Care Means Longer Wear, black and white slide film, 33 1/3 r.p.m. turntable, 15 minutes.	r		"
Training Filmslides on Industrial Electronics.	General	Electi	ric Company
An Adventure in Electronics.	u	"	"
Magnetism.	"	"	"
Thomas A. Edison.	"	"	"
Magnetism, 56 pictures, \$4.50.	The Jan	Handy	Organization
Static Electricity, 91 pictures, \$4.50.	11 11	"	II
Current Electricity, 73 pictures, \$4.50.	п п	"	п
The Electric Cells, 46 pictures, \$4.50.	11 11	"	: II
The Storage Battery, 101 pictures, \$4.50.	11 11	"	н
Electromagnetism, 56 pictures,		11	"
The Generator, 80 pictures, \$4.50.	11 11	"	"
Alternating Current, 85 pictures, \$4.50.	11 11	"	II
Electric Motors, 70 pictures, \$4.50.		11	11
Electric Meters, 81 pictures, \$4.50.	" "	. 11	"
Applications, (part I),63 pictures, \$4.50.	11 11	"	"
Applications (part II),74 pictures, \$4.50.	п п	11	"
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Flight Instruments, 112 pictures, \$3.50.	11 11	- 11	u

95 pictures, \$3.50.	The	Jam	Handy	Organization
(part II), 91 pictures, \$3.50.	"	"	"	"
The Starting Motor, 93 pictures, \$3.50.	11	"	n	п
Chassis Electrical Systems, 42 pictures, \$3.50.	"	"	"	II .
Maintenance of Storage Batteries, 55 pictures, \$3.50.	11	11	11	11
The Ignition System (how it works) 89 pictures, \$3.50.	11	"	11	u .
The Ignition System(care and repair) 65 pictures, §3.50.	"	"	"	"
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Electricity and the Storage Battery, part II, 91 pictures, \$3.50.	"	11	11	n ===
The Generator, 115 pictures, \$3.50.	"	11	"	п
The Generator, 115 pictures, \$3.50. Current and Voltage Regulation, 110 pictures, \$3.50.	"	"	11	n n
Current and Voltage Regulation,	"		"	п
Current and Voltage Regulation, 110 pictures, \$3.50.	"	"	"	tt tt
Current and Voltage Regulation, 110 pictures, \$3.50. The Starting Motor, 89 pictures, \$3.50.	11	"	11	tt tt
Current and Voltage Regulation, 110 pictures, \$3.50. The Starting Motor, 89 pictures, \$3.50. Chassis Electrical Systems, 42 pictures, \$3.50. Kit E. Ignition Trouble, 126 pictures, \$3.50.	11	" "	11	tt tt
Current and Voltage Regulation, 110 pictures, \$3.50. The Starting Motor, 89 pictures, \$3.50. Chassis Electrical Systems, 42 pictures, \$3.50. Kit E.	11	" "	11	tt tt

Power Transmission Trouble, The Jam Handy Organization 81 pictures, \$3.50.

Safety Factors, 105 pictures

CHAPTER VI

MACHINE SHOP

Aids. -

DoAll Job Selector.

The DoAll Company

A Short Study of Coolant Application. Gray-Mills Company

Milling Machine No. 2, specifications J.L. Lucas and Son and data.

Cutter Grinding Gauge.

Warmer and Swasey

Speed and Feed Calculators.

Blueprints. -

Drawing M-1, Metal Lathe Tools and Armstrong Brothers Tool Tool Holder.

Company

Books. -

Operator's Manual Book "C", \$1.00. Covel Manufacturing Company Excellent instruction on the machine lathe.

Instruction Program Volume I, machine shop manual written from an instructors viewpoint.

The DoAll Company

The Magnolia Metal Bearing Book, a discussion of Magnolia Antifriction metal, second edition, copyrighted 1927, 95 pp., \$1.00. Magnolia Metal Company

Running a Regal, principles of engine lathe operation and maintenance.

The R. K. LeBlond Machine Tool Company

How to Machine Parts on Turret Lathes, Considered the best book available on the turret lathe, students and teachers cost .50¢, others \$1.00.

The Wade and Swasey Company

Turret Lathe Operators' Manual, Most complete trestise ever prepared on the turret lathe, students and teachers \$1.00, others \$2.50.

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11

Booklets. -

Suggested Initial Equipment for Average School Workshop Requirements, 5 pp.

Atlas Press Company

what is Carbolov Cemented Carbide, copyrighted 1942, .05 ¢. (A film has been reproduced on this subject and is now available).

Carboloy Company, Incorporated

How to Use Carboloy Visual Training Films in Group Meetings, a very good explanation of the use of visual aids.

Chip Breakers, copyrighted 1942, 15 pp., .05¢, (a film available on this subject).

Brazing Carbolov Cemented Carbide Tools, copyrighted 1942, 15 pp., .05 ¢, (a film available on this subject).

Grinding Carbolov Cemented Carbide Tools, copyrighted 1942, 23 pp., .05¢, (a film available on this subject).

Putting Carboloy Tools to Work, copyrighted 1942, 19 pp., .05¢, (a film available on this subject).

Cutting Gear Teeth on a Milling

Machine, publication M-1397,
contains brief instructions on
cutting worm and wormwheels,
.10 %.

Milling with High Speed Steel.

Presents a discussion of high speed steel milling cutters combining the results of extensive research work with practical suggestions in correct shop procedure, .10 d.

Milling Machine Practice, a discussion on analysis of the process of milling and the use of milling machines and cutters, .10 d.

Cincinnati Milling and Grinding Machines Company

Physics of Metal Cutting, a Cincinnati Milling and Grind-reprint of a lecture by Hans ing Machines Company Ernst during a series of educational lectures at the National Metal Congress, . 10 %.

Machinists Practical Guide.

Morse Twist Drill and Machine Company

Machines, Prices, Jobs; traces production in leading industries and gives examples of machinery, 1945.

National Machine Tool Builders Association

The Toolsetters' Responsibility for Scoville Manufacturing Safety, 17 pp.

Company

Chucks and Their Uses.

Skinner Chuck Company

Setups on Cincinnati Shapers. The Cincinnati Shaper Company

Your Life in the Machine World. Copyrighted 1946.

The DoAll Company

Development of the Present Machine Age from the Beginning of History.

Your Life in the Machine Age, discusses from the beginning of time to the present with illustrations, copyrighted

1946, 52 pp.

Friction Sawing, copyrighted 1945, 23 pp., explanation and classification of friction sawing pertaining to metals and plastics.

Nineteen Unusual Uses for Your Drill Press or Lathe, 19 pp., .15 d.

The Jacob Manufacturing Company

The Tools and Rules for Precision Measuring, copyrighted 1947. 48 pp., free, describes and shows precision measuring tools available.

The L. S. Starrett Company

Operation Instruction Booklets on Shapers.

The Chio Machine Tool Company

Bulletins. -

Cemented Carbide Tool Grinders. Carboloy Company, Incorpo-Illustrations and prices, G.T.-195. rated

11

Grinding Cemented Carbide Milling Cutters and End-Cutting Tools, G.T.-127.

Milling Steel and Carbides, Technical explanation, 11 po., copyrighted 1943.

Your Own Inspection Laboratory, explains how to establish a small compact but efficient inspection laboratory on a limited budget. Author- K.F. Kirchhofer.

George Scherr Company, Incorporated

11

The Use of Gage Blocks.

The Toolmaker's Microscope -Versatile Tool of High Accuracy.

Motor Headstock Lathe, D-17.

One-half H.P. Motor Headstock Lathe, D-13.

Wet Tool Grinder, A-16.

All Purpose Grinders, C-7.

A-2 to A-5 Plain Bearing Wet . Tool Grinders.

McCrosky Adjustable Blade Block McCrosky Tool Corporation Boring Bars, 17-B, copyrighted 1947, 15 pp.

McCrosky Jack-Lock Serrated Blade Milling Machine, 16-M, 11 pp.,

McCrosky Special Cost Cutting Tools, S-17, 15 pp.

McCrosky Wizard Quick-Change Chucks, 17-C, 11 pp.

McCrosky Turrets Tool Posts, 17-T 11 pp., May 1948.

J. G. Blount Company

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McCrosky Super-Adjustable Reamers, h-17, 15 pp.	McCrosky	Tool	Corporation
From the Far Corners of the Earth,	Norton C	ompan	y
How to Increase Tool Life, No. 986.	п	11	
Portable Crinding, No. 1328.	"	"	
The ABC of O.D. Grinding, No. 2006.	н	"	
What, Why, and How - Essential Facts About Grinding, No. 1944.	п	"	
Grinding and Head Treatment, 2022.	"	"	
Shop Notes on Grinding Carbide Tipped Tools, 167X.	"	"	
Mounted Wheels and Mounted Points, No. 43.	"	n	
Safety Code, No. 254.	"	"	
Lecture Course on Grinding, No. 902.	"	"	
The ABC of Internal Grinding, No. 436.	"	"	and the state of t
A Primer on Grinding Wheel Safety, No. 474.	"	"	
Grinding Wheel Information and Selection, No. 626.	n .	"	
Construction of Electrical Furnaces for the Laboratory, No. 458.	tt.	"	
Bulletin. Describes briefly the lathe and grinders made by this company.			and Grinder
Keep Your Lathe Clean Shows how protecting the lathe from dirt will increase production, reduce scrap, and lengthen the life of the lathe, H-1.	South Ber	nd Lat	the Works
Oiling the Lathe, explains the importance of oiling and lubricating, H-2.	и и	11	11

The Installation and Leveling of the Lathe, reprint 1946, 20 pp., correct leveling the lathe.

Keep Your Lathe in Trim, H-4 explains adjustments, power supply, lathe abuse etc.

Jacobs Portomatic Chucks, 49 K.

Jacobs Chucks for the Lathe, 49 L.

Jacobs Key Chucks, 49 M.

Jacobs Super Chucks, 49 N.

Jacobs Tab Chucks, 49 T.

Jacobs Rubber-Flax Hex-Key Chucks, 49 X.

Bulletin and Price List covering the mechanical specification, accessories, and attachments of the Sebastian lathe.

The Sebastian Lathe Company

South Bend Lathe Works

The Jacobs Manufacturing

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Company

Catalogues. -

Parts Catalogue on grinding bits and tool holders.

Catalogue of Machines and accessories, 62 pp., free.

Tool Catalogue and Price List, 28pp.

Standard and Special Dies for Wire,

Bar, Tubing and Speet Metal,

30 pp., D-114 R.

Dake Arbor Presses, DA-46.

Stemmler Archery, 19 pp.

Catalogue Describing Enco Turrets.

Catalogue composed of a series of bulletins on drill chucks, tapping devices, drilling heads, tapping machines, etc.

Armstrong Brothers Tool Company

Atlas Press Company

Carboloy Company, Incorporated

Dake Engine Company

Stemmler, L. E. Company

E.N.C.O. Manufacturing Company

Ettco Tool Company, Incorporated

Precision Tools, 96 pp.

Greenlee Automatic Screw Machine, Greenlee Brothers and Company 16 pp., free.

Heller Brothers Company, 54 pp.

Tool Catalogue, 29 pp.

Ace Tools, 32 pp.

Build Your Own Machine Tools, blueprints and castings, 31 pp., free.

Norton Grinding Wheels, No. 1052. Norton Company

Catalogue.

Catalogue 500 D.

Catalogue, specifications and illu- Sales Service Machine Tool strations on shapers, hack saw, Company and punch presses.

Fundamentals of Machines, a basic U. S. Office of Education course, 1942, 34 pp., (War Department Pre-induction Training Course 102) .10 d W1.40:102.

Pre-Induction Vocational Training
in Machine Shop Practice, 1943,
10 pp., (War Department Preinduction Training Course 332) .10¢ W1.40:332.

Job Machine Shops, L7.16:M18 price list 33, 196 pp., \$1.25.

Machine Shop Occupations, L23:895 price list 33, 28 pp., .20¢.

Catalogue No. 2, punches, dies, rivet sets, chisel blanks, etc., 85 pp., free.

Jacobs Single Purpose Chuck Catalogue No. 49-5,10 pp.

Catalogue, describes tools, 10pp.

Art Metal Crafts, copyrighted 1939, William Dixon, Incorporated 184 pp.

George Scherr Company, Incorporated

Heller Brothers

Henry L. Hanson Company Lewis Machine Tool Company

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Pratt and Whitney

Rivett Lathe and Grinder Corporation

The Cleveland Steel Tool Company

> The Jacob Manufacturing Company

Wells Tool Company

Charts. -

Wall charts covering phases of machine shop practice, .25 ¢.

Screw Thread and Tap Drill Sizes.

Spark Characteristics, No. 176.

Safe Operation of Metal Shapers; industrial safety charts, series G, No. 1-6, 1945, 11x43.3", Labor Standards Division, L 16.8:Sal/7.

Safe Operation of Punch Presses, be sure that press is in good condition, avoid injury; industrial safety chart, series N-6, 1946, 11"x43.13", Labor Standards Division, .05¢, L 16.8:Sa 1/14.

Safe Practices Around Drill Presses, industrial safety charts, series S, No. 1-6, 1945, 11.1"x43.4", Labor Standards Division, .05¢, L 16.8:Sa 1.

Safe Practices Around Engine Lathes, series D, No. 1-6, 1945, 11.1"x 43.4", Labor Standards Division, .05¢, L 16.8:Sa 1/4.

Safety Around Grinding Wheels, industrial safety charts, series F, No. 1-6, 1945, 11.3"x44", Labor Standards Division, .05¢, L 16.8:Sa 1/6.

Ready Reference Chart for Drilling.

Speed and Feed Disc.

Decimal Equivalent Charts.

Drill Angle Gauges.

Drill Angle Gauge Charts.

Recommended Speeds, Pitches,
Tempers, on DoAll Machines with
DoAll Blades.

Atlas Press Company

Lufkin Rule Company

Norton Company

U.S. Office of Education

n n n n

The DoAll Company, Incorporated

Wall chart which graphically points out the component parts of the engine lathe

The R.K. LeBlond Machine Tool Company

Series of wall charts showing the assembly and breakdown of the various parts of a lathe.

The Sebastian Lathe Company

Standard Design Lathe, 22"x34", wall chart of the Sebastian lathe.

Assembly Drawings, 81 "x11" charts of lathe parts.

Speed and feed chart of the turret Warner and Swasey lathe.

Circulars. -

Specifications pertaining to the J.L. Lucas and Son, Incorplain and universal models of porated the milling machine.

Data Sheets. -

Know how data sheets on the J. H. Williams and Company operation of machine shop equipment.

Drawings. -

Nineteen drawings which will enable Behr-Manning Corporation a class to build a backstand idler pulley unit which can be used to convert a bench grinder to a sanding machine, .50 %.

Films. -

The Use and Abuses of Twist Drills, sound, 26 minutes, 16 mm., free.

The Cleveland Twist Drill Company

Machine Maker, portrays the role of the machine tool in the age of technology, No. 184.

Encyclopedia Britannica Films, Incorporated

First Aid, No. 179.

Federal Products Corporation

11

The Dial Indicator, color and sound, 16 mm., free.

Milling Practice. Tundamentals of milling practice in five parts of one half hour each, sound, 35 mm., slidefilms. A Magna-Vox, Lustra-Vox or Operadio playback projection unit necessary.	Kerney	and	Krecker	Corpor-
Lessons in Grinding, No. 1716. (No information available, assume to be 16 mm.).	Norton	Comp	any	
The Steel Rule, OE-1, 14 minutes, sound, black and white, 16 mm.	U.S. (ffice	of Edu	cation
The Micrometer, OE-2, 15 minutes, sound, black and white, 16 mm.	"	"	ır	"
Fixed Gauges, 17 minutes, OE-3, sound, black and white, 16 mm.	"	"	"	11
Verniers, OE-4, 19 minutes, sound, black and white, 16 mm.	"	"	"	"
Height Cages and Test Indicators, OE-5, sound, black and white, 12 minutes, 16 mm.	ľ	"	"	"
Game Blocks and Accessories, OE-246, 23 minutes, sound, black and white, 16 mm.	"	"	"	11 2
The Bevel Protractor, OE-50, sound, 23 minutes, black and white, 16 mm	. "	"	"	"
Visualizing an Object, OE-51, sound, 9 minutes, black and white, 16 mm.	"	"	"	п
Reading a Three View Drawing, OE-52, 10 minutes, sound, black and white, 16 mm.	"	"	"	п
Principal Dimensions, Reference Surfaces and Tolerances, OE-53, 12 minutes, sound, black and white, 16 mm.	"	11	11	11
Sectional Views and Projections, Finish Marks, OE-54, 15 minutes, sound, black and white, 16 mm.	"	"	"	11
Reading a Drawing of a Valve Bonnet, OE-55, 20 minutes, sound, black and white, 16 mm.	"	"	11	"

Fundamentals of Side Cutting Tools, OE-42, 11 minutes, sound, black and white, 16 mm.	U.S.	Office	of	Education
Fundamentals of End Cutting Tools, OE-43, 12 minutes, sound, black and white, 16 mm.	"	п	"	"
Brazing Carbide Tools, OH-241, 18 minutes, sound, black and white, 16 mm.	11	"	"	"
Grinding Single Point Tools, OE-242, 26 minutes, sound, black and white, 16 mm.	n	п	"	11
Grinding Multiple Point Tools, OE-243, 20 minutes, sound, black and white, 16 mm.	n	"	11	п
Cutting with Carbide Tools-Single Point, OE-244, 19 minutes, black and white, sound, 16 mm.	"	"	"	н
Cutting with Carbide Tools-Mill- ing Cutters, OE-245, 15 minutes, black and white, sound, 16 mm.	11	"	u	"
Basic Machines, OE-68, the lathe, 15 minutes, black and white, sound, 16 mm.	н	"	"	"
Basic Machines, the milling machine, OE-69,15 minutes, black and white, sound, 16mm.	"	"	tt	11
Basic Machines, the shaper, OE-70, 15 minutes, black and white, sound, 16 mm.	"	"	"	н
Basic Machines, the drill press, OE-71, 10 minutes, black and white, sound, 16 mm.	u	п	"	"
Rough Turning Between Centers, OE-6, 15 minutes, black and white, sound, 16 mm.	11	"	"	et
Turning Work of Two Diameters, OE-7, 14 minutes, black and white, sound, 16 mm.	n	"	"	я
Cutting a Taper with the Compound Rest and with a Taper Attachment, OE-8, 11 minutes, black and white, sound 16 mm-	"	11	11	"

Drilling, Boring, and Reaming Work Held in Chuck, OE-9, 11 minutes, black and white, sound, 16 mm.	U.S.	Office	of	Education
Cutting and External National Thread, OE-10,12 minutes, black and white, sound, 16 mm.	"	"	"	"
Turning a Taper With the Tail Stock Set Over, OE-44, 17 minutes, black and white, sound, 16 mm.	"	"	"	"
OE-45, 16 minutes, black and white, sound, 16 mm.	"	"	"	"
OE-56, 22 minutes, black and white, sound, 16 mm.	"	11	11	п
Cutting an Internal Taper Pipe Thread, OE-57, 20 minutes, black and white, sound, 16 mm.	"	"	"	"
Turning Work Held on a Fixture, OE-58, 21 minutes, black and white, sound, 16 mm.	"	n	11	ıı
Boring to Close Tolerances, OE-59, 17 minutes, black and white, sound, 16 mm.	"	II	"	п
Machining Work Held in Chuck, Use of Reference Surfaces, OE-60, 24 minutes, black and white, sound, 16 mm.	" _	"	"	"
Turning Work Held on A Mandrel, OE-61, 20 minutes, black and white, sound, 16 mm.	11	11 1	"	"
Using a Steady Rest, OE-62, 25 minutes, black and white, sound, 16 mm.	n	" "	,	n
Using a Follower Rest, OE-63, 21 minutes, black and white, sound, 16 mm.	u	11 1		н
Using a Boring Car Between Centers, OE-64, 22 minutes, black and white, sound, 16 mm.	п	11 11		п

Using a Steady Rest When Boring, OE-65, 21 minutes, black and white, sound, 16 mm.	U.S.	Office	of E	ducation
Drilling and Tapping Cast Steel, OE-22, 19 minutes, black and white, sound, 16 mm.	"	"	"	"
Drilling to a Layout and Spotfacing Cast Iron, OE-23, 15 minutes, black and white, sound, 16 mm.	11	"	"	п
Drilling a Hole in a Pin, OE-46, 10 minutes, black and white, sound, 16 mm.	11	"	"	II .
Locating Holes, Drilling and Tapping in Cast Iron, OE-47, 18 minutes, black and white, sound, 16 mm.	"	"	11	11
Spot Facing, OE-48, 20 minutes, black and white, sound, 16 mm.	n	"	"	"
The Turret Lathe, an Introduction, OE-212, 17 minutes, black and white, sound, 16 mm.	"	u	"	"
Chuck Work, Part I, Setting Up Hexagon Turret Tools, OE-213, 22 minutes, black and white, sound, 16 mm.	п	"	ti .	16
Chuck Work, Part II, Setting Up Tools for Combined Cuts, OE- 214, 16 minutes, black and white, sound, 16 mm.	"	"	ıı	"
Setting Up and Machining Bar Stock, OE-215, 34 minutes black and white, sound, 16 mm.	11	r!	**	и
Bar Work-Magnesium, Part I, Setting Up Bar Mechanism and Roller Turner, OE-216, 18 minutes, black and white, sound, 16 mm.	"	11	п	n
Bar Work-Magnesium, Part II, Setting Up Multiple Roller and Turning a Taper, OE-217, 17 minutes, black and white, sound, 16 mm.	п	ıı	"	•

Bar Work-Magnesium, Part III, Necking and Threading by use of Attachment and by Die Head, OE-218, 23 minutes, black and white, sound, 16 mm.	U.S.	Office	of	Education
Planing a Flat Surface, OE-66, 22 minutes, black and white, sound, 16 mm.	11	"	11	"
Planing a Dovetail Solice, OE-67, 28 minutes, black and white, sound, 16 mm.	"	п	ır	п
The Milling Machine, CE-11, 8 minutes, black and white, sound, 16 mm.	"	п	"	"
Cutting Keyways, OE-12, 15 minutes, black and white, sound, 16 mm.	"	"	"	II
Straddle and Surface Milling to Close Tolerances, OE-13, 27 minutes, black and white, sound, 16 mm.	11	п	11	и
Straddle Milling, OE-14, 17 minutes, black and white, sound, 16 mm.	"	"	11	"
Plain Indexing and Cutting a Sour Gear, OE-15, 26 minutes, black and white, sound, 16 mm.	II.	"	"	и
Milling a Templete, OE-207, 17 minutes, black and white, sound, 16 mm.	11	11	"	11
Cutting a Short Rack, OE-208, 18 minutes, black and white, sound, 16 mm.	11	"	"	п
Boring Holes with Offset Boring Head, OE-209, 28 minutes, black and white, sound, 16 mm.	"	11	"	н
Milling a Helical Cutter, OE-210, 18 minutes, black and white, sound, 16 mm.	11	п	11	п
Cutting Teeth on a Worm Gear, OE-211, 17 minutes, black and white, sound, 16 mm.	"	н	"	н
Using a Shell End Mill, OE-72, 21 minutes, black and white, sound, 16 mm.	H	п	11	н

Cutting a Dovetail Taper Slide, CE-73, 26 minutes, sound, black and white, 16 mm.	U.S.	Office	of	Education
Cutting a Round End Keyway, OE-74, 22 minutes, sound, black and white, 16 mm.	n	"	11	"
Milling a Helical Groove, OE-75, 28 minutes, sound, black and white, 16 mm.	"	H .	"	n
Milling a Circular T-Slot, OE-76, 22 minutes, sound, black and white, 16 mm.	"	"	"	"
Rough Facing, Turning, and Drilling, OE-16, 31 minutes, sound, black and white, 16 mm.	ıı	It	"	"
Rough Facing and Boring, and Turn- ing a Shoulder on Vertical Turret Lathe, CE-17, 22 minutes, sound, black and white, 16 mm.	"	п		n
Facing, Turning, Boring, Grooving, and Chamfering, OE-18, 31 minutes, sound, black and white, 16 mm.	п	"	11	10
Setup for Face Milling with a Fixture, OE-225, 20 minutes, sound, black and white, 16 mm.	"	"	"	"
Face Milling with a Fixture, 0E-226, 16 minutes, sound, black and white, 16 mm.	n	u	"	а
Contour Face Milling, OE-227, sound, 17 minutes, black and white, 15 mm.	"	"	n	"
Setup for Rough Line Boring, OE-228, 15 minutes, sound, black and white, 16 mm.	"	п	t?	**
Rough Line Boring, OE-229, 19 minutes, sound, black and white, 16 mm.	"	n	11	
Drilling, Tapping, Stub-Boring, and Reaming, OE-230, 22 minutes, black and white, sound, 16 mm.	"	"	11	
Grinding a Plain Pin, OE- 80, part I, The Grinding Wheel, 17 minutes, sound, black and white, 16 mm.	"	"	"	"

Grinding a Plain Pin, OE-81, part II, Grinding Operations, 17 minutes, sound, black and white, 16 mm.	U.S.	Office	of	Education
Grinding a Slender Shaft with Back Rest, OE-82, 17 minutes, sound, black and white, 16 mm.	"	II	"	и
Plunge Cut Grinding, OE-83, 15 minutes, sound, black and white, 16 mm.	n	n .	n	"
Grinding a Taper, OE-84, 19 minutes, sound, black and white, 16 mm.	"	"	"	п
Thrufeed Grinding a Straight Pin, part I, OE-85, 29 minutes, sound, black and white, 16 mm.	"	"	"	11
Thrufeed Grinding a Straight Pin, part II, OE-86, 28 minutes, sound, black and white, 16 mm.	"	11	"	11
Infeed Grinding Shouldered Work, OE-87, 23 minutes, sound, black and white, 16 mm.	"	11	"	"
Infeed Grinding a Shaft of Two Dia- meters, OE-88, 31 minutes, sound, black and white, 16 mm.	"	11	**	15 ==
Infeed Grinding a Tapered Pin, OE-89, 26 minutes, sound, black and white, 16 mm.	"	"	"	u
Sharpening a Side Milling Cutter, OE-90, 23 minutes, sound, black and white, 16 mm.	"	n	***	п
Sharpening a Plain Helical Cutter, OE-91, 16 minutes, sound, black and white, 16 mm.	"	n	"	"
Sharpening a Shell End Mill, OE-92, 17 minutes, sound, black and white, 16 mm.	"	ri .	"	u
Sharpening a Form Relieved Cutter, OE-93, 18 minutes, sound, black and white, 16 mm.	11	"	"	"
Sharpening an Angular Cutter, OE-94, 15 minutes, sound, black and white, 16 mm.	"	11	11	11

Grinding a Straight Hole, OE-77, 18 minutes, sound, black and white, 16 mm.	U.S.	Office	of	Education
Grinding a Deep Hole, OE-78, 18 minutes, sound, black and white, 16 mm.	"	"	"	u
Grinding and Facing a Blind Hole, OE-79, 17 minutes, sound, black and white, 16 mm.	"	"	"	11
Grinding a Parallel Bar, part I, Setting Up the Machine, OE-220, 14 minutes, sound, black and white, 16 mm.	п	11	"	"
Grinding a Parallel Bar, part II, Grinding Operations, OE-221, 15 minutes, sound, black and white, 16 mm.	u	"	"	"
Grinding a Templete, OE-222, 15 minutes, sound, black and white, 16 mm.	"	"	11	п
Grinding a V Block, OE-223, sound, 22 minutes, black and white, 16 mm.	"	"	"	
Grinding Thin Discs, OE-224, 15 minutes, sound, black and white, 16 mm.	"	11	"	11
Broaching an Internal Keyway: OE-236, 23 minutes, sound, black and white, 16 mm.	"	н	"	
Single Ram Vertical Surface Broaching, OE-237, 28 mniutes, sound, black and white, 16 mm.	"	"	"	16
Double Ram Vertical Surface Broaching, OE-238, 30 minutes, sound, black and white, 16 mm.	"	п	"	94
Cutting a Keyway on End of a Finished Shaft, OE-19, 13 minutes, black and white, sound, 16 mm.	11	н	п	"
Machining a Cast Iron Rectangular Block, OE-20, 25 minutes, black and white, sound 16 mm.	11	11	11	n

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Drilling, Tapping, Stub-boring, and Reaming, OE-230, 22 minutes, sound, black and white, 16 mm, 676.	U.S.	Office	of Ed	ucation	
Drilling to a Layout and Spot- facing Cast Iron, OE-23, 15 minutes, sound, black and white, 16 mm., 677.	" -	"	"	"	
Drilling with Portable Drill Motors, OE-138, 17 minutes, sound, black and white, 16 mm., 678.	"	"	"	"	
Locating Holes, Drilling and Tapping in Cast Iron, OE-47,18 minutes, sound, black and white, 16 mm., 679.	"	"	"	n	
Reaming with Straight Hand Reamers, OE-37, 20 minutes, sound, black and white, 16 mm., 680.	"	"	11	п	
Chips; theory of cutting, grinding, and setting, 16 mm., sound, black and white.	Warner	and Sw	asey	Company	
Folders					
Ultra-Chex, the new precision length standards.	George rated	Scherr	Comp	any, Incorp	0-
Micrometers.	n	н	"	11	
Scherr Magne-Blox.	н	n	11	11	
Gaertner Toolmaker Microscope.	11	11	"	"	
Black King Files.	Heller	Brothe	rs		
The Right File.	11	"			
Swiss Pattern Files.	11	"			
Curved Tooth Files.	n n	"			
Grinding Wheel Markings, No. 1223.	Norton	Company			
Sparks Folder, No. 1742.	"	"			

Handbooks. -

Universal Cutter and Tool Grind- Covel Manufacturing Company ing, 1944 copyrighted, 128 pp., \$1.00. A Handbook on Tool Room Grinding, Norton Company Handbook for Drillers, free. The Cleveland Twist Drill Company Instruction Sheets. -Set of eight instruction sheets for AMMCO Tools, Incorporated boring machine operations. Set of good instruction sheets for 7" precision shaper. How and Why Series of Looseleaf J.H. Williams and Company Instruction Sheets: 1. Williams' "Superior" Wrenches. " ** 2. Williams' Boring Tools. 3. Vulcan Chain Pipe Tongs. 4. "Supersocket" Wrenches. 11 5. Lathe Dogs. 6. "Vulcan" Chain Pipe Vises.
7. Turning-Tools.
8. Superior Wrenches.
9. Supersockets. . " 8. Superior Wrenches.
9. Supersockets.
10. Eye Bolts.
11. "C" Clamps.
12. Cutting-Off Tool Holders.
13. Vounding Tool Holders.
14. "" 11 Tool Holders. (Data Sheet A). 17. Grinding Cutters for Williams' " Tool Holders (B). 18. Grinding Cutters for Williams' Tool Holders (C). 19. Grinding Cutters for Williams' Tool Holders (D). 20. Grinding Cutters for Williams' " 17 Tool Holders (E). 21. Grinding Cutters for Williams' " Tool Holders (F). 22. The Proper Use of Open-End " Wrenches. 23. The Proper Selection and Use ** of Lathe Dogs.

24. The Proper Selection and Use J. H. Williams and Company of Socket Wrenches.

Directions for Taking Apart and Assembling Jacobs Chucks.

Common Jacob Chucks Abuses.

Instruction Sheets on Shaper, free. The Ohio Machine Tool Company

Manuals. -

Manual of Lathe Operation, operating information on all types of metal cutting lathes, 238 pp., copyrighted 1937, .85 ¢.

Instructional Manual on Grinding Machines.

Carboloy Tool Manual, explanations in design, application, grinding, and brazing.

Die Service Manual, copyrighted 1945, 64 pp., excellent manual on die service.

Operators' Manual Book C.

Tool Manual, 16 pp.

McCrosky Quick-Change Chuck Manual, 15 pp.

McCrosky Milling Cutter Manual.

McCrosky Reamer Manual (Instructions) 16 pp.

War Department Maintenance Manual and Parts Catalog.

Operator's Manual, Cincinnati Shaper, excellent material on care and operation.

Running a Regal; a manuel of lathe operations and maintenance of a modern geared head engine lathe, 129 pp., copyrighted 1945, .25 d.

The Jacob Manufacturing Company

Atlas Press Company

Abrasive Machine Tool Company

Covel Manufacturing Company

McCrosky Tool Corporation

Sheldon Machine Company, Incorporated

The Cincinnati Shaper Company

R.K. Le Blond Machine Tool Company

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Basic Instructions in Aviation Drafting, Prob. No. 20.	Eagle Pencil Company
Basic Instructions in Aviation Drafting, Prob. No. 19.	и и и
Basic Instructions in Aviation Drafting, Prob. No. 23.	и и и
Basic Instructions in Aviation Drafting, Prob. No. 21.	H 11 H
Price Sheets	
Price Sheet, contains illustrations with prices.	Champion De Arment Tool Company
Project Sheets	
Coated Abrasives for the Machine Shop, project I.	Behr-Manning Corporation
Oilstones Used in the Machine Shop, project II.	II II
Coated Abrasives for Woodwork, project III.	11 11
Coated Abrasives for Woodwork, project LV	п п
The Use of Oilstones, project V.	и и
Coated Abrasives for Metal Preparation, project VII.	
Coated Abrasives for Metal Finishing, project VIII.	11 11
Hand Stoned Cutting Tools Produce Faster, Better, More Cuts, project IX.	<u> </u>
Publications	

Tool and Die Maker, 1946, 14 pp., U.S. Office of Education (War Department Occupational Brief), .05¢, W1.63:103.

Machinist 2 (4.75.010), June 1947, four pages, .05¢, L7.32/2M 11/947-2.

Job Description for Machine Shops, 1938, 196 pp., (Employment Service), \$1.25, L7.16:M18.	U.S.	. Office	of	Education
Milling Machine Operator 2, (4-78-031), Oct. 1947, 6 pp., .05¢. L7.32:M 62/2.	"	"	"	tt.
Tool and Die Maker, (4-76.04), June 1947, 6 pp., .05¢, L7.32:T 61/947-2.	"	"	11	n
Machinist, All-round, W.163:72, 13 pp., price list 33, .05¢.	11	"	"	11
Slidefilms				
Kit C complete \$53.50. Planers, 39 pictures, \$4.50.	The	Jam Han	dу	Organization
Specialized Machines, 35 pictures, \$4.50.	"	11 11		ıt
Other Specialized Machines, 49 pictures, \$4.50.	"	11 11		a
Drill Presses, part 1, 41 pictures, \$4.50.	"	11 11		
Drill Presses, part 2, 40 pictures, \$4.50.	11	11 11		ıı
Grinding Machines, 52 pictures, \$4.50	• "	11 11		"
Lathe, part 1, 67 pictures, \$4;50.	11	11 (1		ıı,
Lathe, part 2, 52 pictures, \$4.50.	11	11 11		"
Milling Machines, 55 pictures, \$4.50.	"	11 11		"
Shapers, 52 pictures, \$4.50.	11	11 11		и
Kit A. The Machinist, 50 pictures, \$4.50.	"			п
Machine Tools, 62 pictures, \$4.50.	11	11 11	'	u
Machine Technique, part 1, 85 pictures, \$4.50.	11	11 1	•	
Machine Technique, part 2, 67 pictures, 4.50.	11	11 1	,	и

Kit B. Measurements and Measuring, part 1, 50 pictures, \$4.50.	The	Jan	Handy	Organication
Measurements and Measuring, part 2, 64 pictures, \$4.50.	"	"	"	н
Engine Lathes, Kinds, Parts, Safety, 66 pictures, \$4.50.	"	11	"	"
Engine Lathes, Operating Speeds, 58 pictures, \$4.50.	18	11	"	tt II
Engine Lathes, Carriage Controls, Feeds, 69 pictures, \$4.50.	"	"	11	11
Turning Tools, 97 pictures, \$4.50.	11	11	"	"
Chucks, Chucking Work, 68 pictures, \$4.50.	ıı	"	11	rt .
Centers, Setting Tools, Facing, 72 pictures, \$4.50.	"	н	"	n
Engine Lathe, Center Holes, Mounting Work, Facing Between Centers, 57 pictures, \$4.50.	"	"	"	"
Engine Lathe, Turning Between Centers, Shouldering, 66 pictures, \$4.50.	"	"	"	II =
Engine Lathe, Recessing, Chamfering, Filing, Polishing, Knurling, 59 pictures, \$4.50.	"	"	H	n
Engine Lathe, Taper Turning, Thread- ing, 85 pictures, \$4.50.	11	11	n	
Engine Lathe, Collets, Faceplates, Rests, 64 pictures, \$4.50.	H	#1	11	n

METAL WORK

Books. -

A Lecture Course on Coated

Abrasives in the Metal Working Industry, copyrighted 1946,
72 pp., one copy free.

Behr-Manning Corporation

Grinding Wheels, 94 pp.

Technical Information on Revere

Copper and Copper Alloy, 4th
edition, May 1947, complete
detailed descriptions of 39
principal Revere alloys, 59 pp.

Mid-West Abrasive Company

Revere Copper and Brass, Incorporated

Radiant Panel Heating, a nontechnical discussion on the pros and cons of radiant panel heating.

Vest Pocket Data Book.

Sunbeam Corporation

Booklets. -

Machines, Prices, Jobs.

Abrasive Surface Grinders.

Alcoa Aluminum and its Alloys, 153 pp., 18 illustrations, 55 tables.

Aluminum Casting Alloys, 94 pp., 22 illustrations, 11 tables.

Alcoa Structural Handbook, \$1.25, Students .75\$.

Aluminum in the Chemical Industry, 62 pp., 8 tables, 18 illustrations.

Aluminum - Its Story, 45 pp., 31 illustrations.

An Outline of Aluminum, 64 pp., 55 illustrations.

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Finishes for Aluminum, 59 pp., 33 illustrations, free.

Machining Alcoa Aluminum, 48 pp., 8 tables, 23 illustrations, free.

Riveting Alcoa Aluminum, 46 pp., 19 tables, 12 illustrations, free.

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Alcoa Aluminum and its Alloys, fundamental information concerning alloys of aluminum, 168 pp., 18 illustrations, 55 tables, free.

Alcoa Structural Handbook, shapes produced in aluminum with data on strengths, \$1.25, students .75¢.

Casting Alcoa Alloys, description of the various aluminum casting alloys, 142 pp., 16 tables, 29 illustrations.

Aluminum in Aircraft, general information on Aluminum alloys and products etc., 36 tables, 114 pp., 33 illustrations.

Forming Alcoa Aluminum and Magnesium. Fabrication of metals, 88 pp., 14 tables, free.

Alcoa Aluminum in Automatic Screw Machine, basic information on machining aluminum alloys on automatic screw machines, 96 pp., free.

Steel Makes the Home, good booklet on steel in the construction of homes.

Booklet, deals with manufacture of steel and the making of the tin can, by Robert Skemp, 21 pp.

Booklet on metal cutting band saw blades.

Lecture Course on Coated Abrasives and its supplements on Metalworking. Alcoa Library

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Aluminum Company of America

II

American Iron and Steel Institute

American Steel and Tin Plate Company

Atlantic Saw Manufacturing Company

Behr-Manning Corporation

Behr-Manning Corporation Sandpaper - How and Why, 25. How to Sharpen, 25. Bethlehem Steel Company Steel in the Making; a brief non-technical treatise describing the fundamentals of steelmaking, could be used as a text on steel. copyrighted 1942, 73 pp. Brown and Sharpe Manufactur-Apprenticeship Booklet. ing Company Clemson Brothers, Incorpo-Metal Cutting. rated Copper and Brass Research The History of Cooper and Brass, Association Man's Most Useful Metals; (Small explanatory booklet with illustrations on his history of copper from the dawn of history to the present), free. Selecting the Right Tap for the Job. Greenfield Tap and Die Cornoration Acorn Dies. Facts about Taps and Tapping. No.1 Tap Talk. No. 2 How to Sharpen Taps. No.3 Twenty-two Reasons Why A Good Tap Can Go Wrong. No.4 Pocket Guide to Better Tapping. Lubricating Taps Right. Silver For The Craftsman, (Basic Handy and Harman information in ordering and working Sterling Silver), copy-righted 1946, 12 pp. Making Hand Wrought Sterling Silver Jewelry, copyrighted 1945, price \$1.00, 15 pp., several projects and how to make them. Helpful Hints and Safety Suggest- Macklin Company

ions.

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T-46 Tool Room.	Mackli	n Compa	ny		
Machinist's Practical Guide.		Twist D e Compa		and	
The Niagara Handy Reference Book- let.	Niegar	a Machi	ne and	Tool V	Vorks
File Filosophy.	Nichol	son Fil	e Comp	any	
The Spirit of Paul Revere-A Heritage for American Industry, by C. Donald Dollar, copyrighted 1944.	Revere Compan	Copper	and E	Brass	
Magnesium, the light weight metal for a multitude of uses, 18 pp., copyrighted 1945.	"	11	11	"	
History of Copper and BrassMan's Most Useful Metals.	n		"	н	
Booklet on Responsibility for Safety; (explains safety operation of oil, gas, and electrical furnaces).	Scovili	le Manui	factur	ing Com	pany
Tool Room Wheel Gradings and Mark- ing System, copyrighted 1945.	The Car	rborundi	am Com	pany	
Causes and Correction.	"	11		H	
Mounted Wheels, copyrighted 1947.	н	11		11	
Roll Grinding.	"	ıı		II .	
The Romance of Carborundum, copy- righted, 1945.	п	u		"	
Cutting-Off Wheels, copyrighted 1945.	11	11		п	
Portable Grinding Machines.	11	11		**	
The Operation of the 24M Di-Saw Machine.	The Tar	nnewitz	Works		
Friction Sawing, by Arthur A. Schwartz, explains cutting of metals and plastics with the Tannewitz band saw.	ti .	11	"		
Instructions for Setting Up and Operating The Tannewitz Di-Saw, 27 pp., free.	"	"	"		

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Booklet devoted to the proper application of Hack Saw blades. Victor Saw Works, Incorporated

Bulletins. -

School Lathes, D-13.

School Lathes, D-17.

Wet Tool Grinders, A-2.

Wet Tool Grinders, A-5.

Twenty Foot Grinder Model FTC,

AC All Purpose Grinder, C-7.

Coolants for Abrasive Belts.

Belt Sanding of Metal, No. 2.

Testing Coated Abrasives, No. 3.

Belt Sanding of Metal, the polishing lathe, No. 4.

The Effect of Moisture on the Work Value of Glue-Bonded Coated Abrasives, No. 5.

Abrasive Disc Sanders, No. 6.

Something Entirely New In Coated Abrasives, saves cost and time, (No.9 printed 1949, a bulletin is issued each month) free.

Bulletin Twenty Flexible Shaft Tools Foredom Flexible Shaft Tools for Industry.

Brazing Carbide Tool Tips with Easy-Flo, No. 3, 11-A.

Low Temperature Brazing of Metals with Sil-Fos and Easy-Flo for Speed, Strength, Economy, 12-A, 18pp.

How to Repair Broken Cutting Tools with Easy-Flo.Bulletin 14, copyrighted 1944, 15 pp.

J. G. Blount

11

Clover Manufacturing Companyl

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Handy and Harman

Clover Manufacturing Company Booklets by E. B. Gallaher, M.E.

Norton Cut-off Wheels for Delta Cutting-off Machines, Ko.1724.	Norton (Company	
Lecture Course on Grinding, No. 902.	"	II.	
Condensed Catalogue.	Pratt ar	nd Whitne	у
Bulletin 500 D; descriptive bulletin on lathes and grinders, 12 pp.	Rivett I		i Grinder
King Kut Knives, Tools and Blades. Copyrighted 1947, descriptions of carving tools with prices.	The A.P	. Parts (Corporation
The Abrasive Tools of Industry, 4 pp., copyrighted 1942, free.	The Carl	borundum	Company
What A Grinding Wheel Does, copyrighted 1942, 4 pp., free.	"	ı	"
Standard Grinding Wheel Shapes, copyrighted 1942, 4 pp., free.	"	н	"
The Grinding Wheel as a Production Tool, copyrighted 1942, 4 pp., free.	"	11	u
Classes of Grinding Operations, copyrighted 1942, 4 pp., free.	11	11	11
wheel, Work and Machine Movements, part I, copyrighted 1942, 4 pp., free.	11	"	H.
wheel, Work and Machine Movements, part II, copyrighted 1942, 4 pp., free.	ıı	"	ıı
Stresses Due to Wheel Works and Machine Movements, copyrighted 1942, 4 pp., free.	n	п	"
Stresses Due to Contact Between Wheel and Work, copyright 1942, 4 pp., free.	"	tl	ıı
The Disposal of Chips, copyright 194	2, "	n	"
Grinding Wheel Safety, coptright 194		11	"
Wheel Balancing, copyrighted, 4 pp.	, "	н	п

Dressing and Truing Tools. copyright 1942, 4 pp., free.	The Carl	porundum C	ompany
Dressing and Truing Procedures, copyright 1942, 4pp., free.	п	n	it .
Wheel Marking Symbols, copyright 1942, 4pp., free.	ıı .	11	"
Center Type Cylindrical Grinding, copyright 1942, 4pp., free.	"	11	"
Centerless Type Cylindrical Grinding, part 1, copyright 1942, 4 pp., free.	II	n	19
Centerless Type Cylindrical Grinding, part 2, copyright 1942, 4 pp., free.	11	II	п
Surface Grinding, copyright 1942, 4 pp., free.	"	11	"
Internal Grinding, copyright 1942, 4 pp., free.	"	11	п
Cutting Off, copyright 1942, 4 pp., free.	u .	"	ıı
Snegging and Off-Hand Grinding, copyright 1942, 4 pp., free.	n	ıı .	п
Causes and Corrections of Common Grinding Errors, copyright 1942, 4 pp., free.	п	"	n
Coated Abrasives, copyright 1942, 4 pp., free.	"	"	ıı
Polishing Grains, copyright 1942, 4 pp., free.	п	"	"
Information Bulletin on the Pexto Sheet-Metal Machinery.	The Peck Company	Stow and	Wilcox
Catalpgues			
Alcoa Library, listings of all the available teaching aids and sound films.	Aluminum	Company	of America
Catalogue, information on Armstrong cutting tools.	Armstron	g Brother	s Tool

Shapers, No. S-48.

Milling Machines, No. M-48.

Ten Inch Lathe, No. L-47.

Hardsteel Tools, copyright 1944, explains the special Black Hardsteel drill and gives operation sheets on how to use and set up, 19 pp.

Parts Catalogue, illustrates and describes all tools and equipment of the blow and forge type manufactured by Champion Blower and Forge Company.

Catalogue, describes and illustrates Chicago Wheel and Manuthe small handee tool and grinder facturing Company with accessories, 63 pp.

Catalogue, Twist Drills, 55 pp.

Catalogue, summary of measuring instruments, tools, and gages.

Catalogue, deals with clamps, vises, Grand Specialties Company and fastening devices used in shops.

Tabs and Dies.

Catalogue, illustrates and explains furnaces made by the Johnson Company.

Metal Crafts Catalogue, contains some very good designs, illustrates and prices all types of metal working supplies and equipment, copyright 1948, 107 pp., .50d.

Coated Abrasives, No. 23, 56 pages of Mid-West Abrasive Company information with price list.

Grinding Wheel Information.

The Niagara Condensed Catalogue.

No. 1655.

Atlas Press Company

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Black Drill Company

Champion Blower and Forge Company

Etna Twist Drill Company

George Scherr Company. Incorporated

Henry L. Hanson Company

Johnson Gas Company

Metal Crafts Supply Company

Niagara Machine and Tool Company

Norton Company

Diamond Wheels Price List, No. Norton Company 1233. Segments, No. 2345. Grinding Wheel Recommendations for Grinding Machines, No. 253. 11 Norton Grinding and Lapping Machines, No. 1843. Norton Grinding Wheels, No. 1052. Revere Copper and Brass, Revere Standard Copper for Build-Incorporated ing Construction, Architectural specifications for roofs, gutters, valleys, flashings, etc., 15 pp. Revere Architectural Shapes and Sheets, 11 pp. Copper and Copper Alloys, 15 pp. Process Industries, 15 pp. Revere Tube and Pipe, 23 pp. Radiant Panel Heating, 1st edition, copyright 1947, 36 pp., a very good non-technical discussion pro and con. Radiant Heat with Copper Tubing, a practical research program, reprint 1947. Catalog, illustrates Sheldon Machines. Sheldon Machine Company, Incorporated The Cincinnati Tool Company Tool Catalogue, Mechanics Handtools. Tools Catalogue. William Dixon, Incorporated Art and Metal Tool and Supply Catalogue with Price List. The Dallett Company Catalogue, illustrates pneumatic metal and stone working tools.

Charts. -

Helps for Sheet Metal Men.

Niagara Machine and Tool Works

Chemistry and History of Aluminum, 17 7/8" x 27 ½", gives chemistry and history of aluminum.

Aluminum Company of America

Machining; 14 x 20", describes rake angles, tool materials. speeds and feed, and type of cutting compounds.

Welding and Brazing, contains helpful information such as flame adjustment, 10 3/4" x 13 3/4".

Alcoa Global Map; North polar projection map of the world.

Lathe Practice; blue print style, Atlas Press Company " complete set .25 d.

Coated Abrasives for Finishing Behr-Manning Corporation Metal.

Coated Abrasives, Descriptions, and Uses.

Letter, and Fraction Sizes, .25 d. Cleveland Twist Drill Company Drill Cutting Speeds for Number,

Charts available dealing with Henry Disston and Sons, hand saws, files, and hack Incorporated

Large wall charts on files and Nicholson File Company abrasives.

Sparks Characteristics, No. 176. Norton Company

Grinding Wheel Markings, No. 2208.

Maintenance of High Speed Swing Frame and Floor Stand Machines, No. 2229.

Mounted Wheels and Points, No. 1877.

Role Grinding. No. 1645.

Threading Grinding, No. 1848.

Ohm's Law, wall chart.

Parallel Resistance.

Steel Specifications.

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Ohmite Manufacturing Company

Sunbeam Corporation

Furnace Maintenance. Sunbeam Corporation Micrometer. The Lufkin Rule Company Time Saver. Drill Card. 11 Circulars. -Carbide Tool Holders and Armide Armstrong Brothers Tool Cutters. Company Enco lathe turrets, bench lathes, engine lathes, and company Notebook fillers on Enco machines engine lathes, and screw machines. Films. -How to Weld Aluminum, 17 minutes. Alcoa Library sound, black and white, 16 mm. How to Weld Aluminum, Resistance Welding, 12 minutes, sound, black and white, 16 mm. How to Weld Aluminum, Arc Welding, 10 minutes, sound, black and white, 16 mm. This is Aluminum, 35 minutes, 11 sound, black and white, 16 mm. Aluminum Fabricating Process, 20 minutes, sound, black and white, 16 mm. Dateline Tomorrow, Finishes for Aluminum, 20 minutes, sound, black and white, 16 mm. How to Form Aluminum, general sheet metal practice, sound, black and white, 16 mm. Blanking and Piercing, 15 minutes, sound, black and white, 16 mm. Drawing, Stretching, and Stamping, 22 minutes, sound, black and white, 16 mm. Spinning, 16 minutes, sound, black

and white, 16 mm.

Tube and Shane Bending, 13 minutes, Alcoa Library sound, black and white, 16 mm. 11 21 How to Machine Aluminum, 32 minutes, sound, black and white, 16 mm. How to Rivet Aluminum, 26 minutes, sound, black and white, 16 mm. How to Braze Aluminum, 7 minutes, sound, black and white, 16 mm. Unfinished Rainbows, 37 minutes, (the story of aluminum), sound, black and white, 16 mm. This is Aluminum, 37 minutes, describes in detail the steps in mining bauxite as well as processing, sound, black and white, 16 mm. Shipways, a dramatic record of the Bethlehem Steel Company achievements in Bethleham shipyards, 16 and 35 mm., sound, 40 minutes. 11 Steel-Plus, production and use of tin plate, 16 mm., sound, 45 minutes. Streamlined Steel, scenes of modern steel making, 16 mm., sound, 45 minutes. Sinews of Steel, design, production, and application of wire rope, 16 mm., sound, 45 minutes. Wire, a vivid account of the manufacture of wire products, 16 mm., sound, 45 minutes. If It Happened Here, industrial plant protection in time of war and emergencies, 16 mm., sound, 45 minutes. Highlights in Steel Making, part I, principal steps in the manufacture and processing of steel, 16 mm., sound, 42 minutes. Handy and Harman Handwrought Silver.

Part II, emphasizes the care taken in every step of steel manufacture, 16 mm., sound, 45 minutes.

This is Steel; a concise pictorial presentation of steel in the making, 16 mm., sound, 28 minutes.

The Making of Allov Steel; Steps in the production of alloy steel, 16 mm., sound, 45 minutes.

Building the Golden Gate Bridge; follows the construction of the worlds largest suspension bridge, 16 mm., sound, 45 minutes.

Decorative Metal Work; scenes of articles made of metal, sketches and designs drawn and shown, step by step procedure of etching a metal bracelet.

Aluminum. one reel, black and white, 16 mm., \$24.

Metal Craft, explains making a pewter bowl, a bronz bowl, and a molded candlestick, No. 236.

Milling Practice.

Silversmithing, \$60.

Blind Riveting, OE-294, 15 minutes, sound, black and white, 16 mm.

Hand Soldering, CE-479, 20 minutes, black and white, sound, 16 mm.

High Frequency Soldering, OE-480, 17 minutes, black and white, sound, 16 mm.

Shear, OE-130, 15 minutes, sound, black and white, 16 mm.

Bethlehem Steel Corporation

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Brandon Films, Incorporated

Encyclopedia Britannica Films, Incorporated

Kearney and Trecker Corporation
Library Films, Incorporated
U.S. Office of Education

Blanking Sheet Metal on the Squaring Shear, OE-130, 15 minutes.	U.S.	Office	of	Education
Blanking Sheet Metal with Hand Snips, OE-131, 18 minutes.	"	н	"	"
Blanking with the Swing Arm Router, OE-132, 17 minutes.	11	II.	"	"
Blanking with Rotary and High Speed Shear, CE-292, 16 minutes.	11	11	11	11
Forming with Rubber on the Hydraulic Press, OE-133, 11 minutes.	"	"	"	ıı
Forming on Rotary Machines, OE-290, 17 minutes.	"	11	11	11
Forming on a Hand Operated Brake, CE-134, 17 minutes.	"		Ħ	"
Finish Forming by Hand, CE-135, 16 minutes.	"	11	"	"
Forming with a Drop Hammer, CE-291, 17 minutes.	"	11	"	"
Forming on the Stretching Machine, OE-251, 17 minutes.	"	"	11	
Assembling in the Jig, (fitting and lining up), OE-136, 16 minutes.	п	п	11	"
Assembling in a Jig, (drilling and riveting), OE-137, 21 minutes.	"	"	"	"
Drilling with Portable Drill Motors, OE-138, 17 minutes.	"	п	"	ff
Dimpling and Countersinking, CE-139, 21 minutes.	11	"	tt	n
Driving and Bucking Rivets, OE-140, 18 minutes.	11	ti .	"	"
Removing Defective Rivets, OE-141, 15 minutes.	"	"	11	11
Squeeze Riveting-Stationary and Port- able Riveters, OE-293, 15 minutes.	"	"	"	"
Blind Riveting, OE-294, 15 minutes.	n	11	11	ıı
Spot Welding, OE-295, 20 minutes.	11	11	11	•

Cutting Threads with Taps and Dies, OE-34, 19 minutes.	U.S.	Office	of	Education
Scraping Flat Surfaces, OE-35, 14 minutes.	"	"	11	и
Fitting and Scraping Small Bear- ings, OE-36, 24 minutes.	11	"	"	п
Reaming with Straight Hand Reamers, OE-37, 20 minutes.	"	11	"	"
Reaming with Taper Hand Reamers, OE-38, 15 minutes.	"	11	н	п
Centering Small Stock, OE-39, 12 minutes.	ıı	tt	11	11
Laying Out Small Castings, OE-40, 16 minutes.	. "	n .	11	11
Fundamentals of Filing, CE-41, 12 minutes.	"	11	11	ıı
Drilling and Tapping Cast Steel, OE-22, 17 minutes.	"	11	"	11
Drilling to a Layout and Spotfacing Cast Iron, OE-23, 15 minutes.	n	11	"	11 =
Drilling a Hole in a Pin, OE-46, 10 minutes.	"	"	"	ti
Locating Holes, Drilling and Tapping in Cast Iron, OE-47, 18 minutes.	"	11	11	tt
Spot Facing, OE-48, 20 minutes.	11	u	"	н
Forging with a Hand Forge, OE-191, 13 minutes.	"	n	11	17
Forge Welding, OE-192, 12 minutes.	ш	- 11	11	12
Forge Hardening and Tempering Farm Tools, OE-193, 17 minutes.	n	11	11	tt
Brazing Flanges with Silver Solder, OE-104.	ti	-	11	и
Brazing Flanges with Spelter, OE-103.	"	11	11	11
Bending Copper Tubing to a Wire Templet , OE-102, 22 minutes.	u	11	ıl	и

Tinning and Solder Wiping, OE-343, 26 minutes.	U. S.	Office	of I	Education ²
Making a Master Contour Templet. OE-125, 18 minutes.	11 11	11	"	"
Making a Master Developed Layout, Part I, OE-126, 20 minutes.	" "	"	"	п
Making a Master Developed Layout, Part II, OE-127, 17 minutes.	11 11	"	"	"
Sawing Templet Metal, OE-128, 17 minutes.	. " "	11	"	11
Filing Templet Metal, OE-129, 15 minutes.	" "	11	"	n .
Making Sheet Metal Repairs, OE-252, 19 minutes.	11 11	11	"	"
Copper and Brass Alloys.	Revere	Copper	r and	Brass,
Magnesium Alloys.	n	"	"	"
Aluminum Alloys.	n n	п	11	п
How to Braze Aluminum, No.X 219, Seven minutes, sound, black and white, 16 mm.	U. S. E	Sureau	of Mi	ines
How to Form Aluminum; Blanking and Piercing, No. X205,16mm., sound, 16 minutes, black and white.	11 11	п	11	11
How to Form Aluminum; Drawing, Stretching and Stamping, No. X 207, 22 minutes, sound, black and white, 16 mm.	" "	"	"	"
How to Form Aluminum; General Sheet Metal Practice, No. X204, 21 minutes, sound, black and white, 16 mm.	11 11	u .	11	"
How to Form Aluminum; Spinning,				

U. S. Office of Education films in the group, sound, black and white, 16 mm.

How to Form Aluminum; Tubes and Shapes Bending, No. X 206, 14 minutes, sound, black and white 16 mm.	U. S.	Burea	u of	Mines
How to Machine Aluminum, No.X194, 32 minutes, sound, black and white, 16 mm.	"	" "	"	п
How to Rivet Aluminum, No. X195, 27 minutes, sound, black and white, 16 mm.	"	11	11	и
How to Weld Aluminum; Arc Weld- ing, No. X221, 10 minutes, sound, black and white, 16 mm.	п	"	"	"
How to Weld Aluminum; Resistance Welding, No.X222, 12 minutes, sound, black and white, 16 mm.	п	11	п	n .
How to Weld Aluminum; torch weld- ing, No. X220, 17 minutes, sound, black and white, 16 mm.	11	"	"	n
Folders				
Metal Cutting Band Saws.	America	n Saw	and	Manufactur-
	ing Com	pany		Manuractur-
Sparks Folder, No. 1742.	ing Com	pany		Manuractur-
Sparks Folder, No. 1742. Ball Pein Hammers.	ing Com	pany Compar	пy	Manuractur-
	Norton	pany Compar	пy	Manuractur-
Ball Pein Hammers.	Norton Heller	pany Compar Brothe	пy	Manuractur-
Ball Pein Hammers. Nucut Files.	Norton Heller	pany Compar Brothe	пy	Manuractur-
Ball Fein Hammers. Nucut Files. Multi-Kut File.	Norton Heller	pany Compar Brothe	пy	Manuractur-
Ball Pein Hammers. Nucut Files. Multi-Kut File. Another New File.	Norton Heller	pany Compar Brothe	пy	Manuractur-
Ball Fein Hammers. Nucut Files. Multi-Kut File. Another New File. Special Purpose Files.	Ing Com Norton Heller	pany Compar Brothe	пy	Manuractur-
Ball Fein Hammers. Nucut Files. Multi-Kut File. Another New File. Special Purpose Files. Johnson Files.	Ing Com Norton Heller	pany Compar Brothe	пy	Manuractur-
Ball Pein Hammers. Nucut Files. Multi-Kut File. Another New File. Special Purpose Files. Johnson Files. Rex Files.	Ing Com Norton Heller " " " " "	pany Compar Brothe	пy	Manuractur-
Ball Fein Hammers. Nucut Files. Multi-Kut File. Another New File. Special Purpose Files. Johnson Files. Rex Files. Curved Tooth Files.	Ing Com Norton Heller " " " " "	pany Compar Brothe	пy	Manuractur-
Ball Fein Hammers. Nucut Files. Multi-Kut File. Another New File. Special Purpose Files. Johnson Files. Rex Files. Curved Tooth Files. Rotary Files.	Ing Com Norton Heller "" "" "" "" "" "" "" "" "" "" "" "" ""	pany Compar Brothe	пy	Manuractur-

Swiss Pattern Files.

Curved Tooth Files.

Magne-Blox.

Ultra-Chex.

Tool Grinding.

Folder on drills and grinders.

Office Necessities.

Pliers.

Pliers and Special Purpose Tools.

Tap Extractor.

How to Use the Walton Tap Extractor.

Handbooks. -

Coated Abrasives. Describes the coated abrasive industry and stresses the importance of these products, 36 pp., copyrighted 1945, .25¢.

A Handbook on Abrasives, No. 1508.

A Handbook on Tool Room Grinding, No. 835.

Handbook on Heat Treating infor- Sunbeam Corporation mation and Equipment.

Instruction Sheets. -

Instruction sheets for mechanical Princeton Tool Company tongs.

Interesting Facts About Diamonds.

Recommendations for the use of Master Aluminum Solder.

Instructional materials covering the Circular Saw, Band Saw, Knives, Hack Saw, Files and Metal Cutting Band Saws.

Heller Brothers

George Scherr Company, Incorporated

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Speedway Manufacturing Company

William Schollhorn Company

The Walton Company

11

Clover Manufacturing Company

Norton Company

The Kindt-Collons Company

Simonds Saw and Steel Company

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Shaper Progress, Cincinnati Shapers.	Cincinnati Shaper Company
Railroad, the Place of the Shaper.	
Master Tools of Industry.	11 11 11
Grand Quality No. 6 Clamps and Vises.	Grand Specialties Company
Grand Welding Clamps.	11 11 11
Grand Vise Master.	11 11 11
Grand Sasgen Portable Shop Cranes.	n n
Grand Door Holders.	11 11 11
Leaflets	
Standard Pricing Schedules for Handy and Harman Silver Brazing Alloys and Flux.	Handy and Harman
Where You Can Purchase Sil-Fos, Easy-Flo, and Handy Flux.	n n n
Instructions for Torch Brazing with Sil-Fos, Easy-Flo, and Handy Silver Solders.	n n n =
It's Smart Business for You to Use Huther Patented Inserted Tooth Milling Saws.	Huther Brothers
Huther Brothers New Band Saw Buide, No. 107.	11 11
Manuals	
Abrasives Surface Grinders, price list and instruction manual.	Abrasive Machine Tool Company
Lathe Operation; .85%, 237 pp., copyrighted 1937, indexed with excellent instructive material.	Atlas Press Company
Fundamentals of Silver Alloy Brazing, copyrighted 1947, 30 pp.	Handy and Harman
Fundamentals of Silver Alloy Brazing for the Jewelry Industry; copyrighted 1948, 28 pp., developments and discussions of Silver Soldering.	11 11 11

all types of saws both hand and rated machine. Pamphlets. -Fundamentals of Silver Alloy Handy and Harman Brazing. Publications. -Coppersmith II.(4-80.080) price list 33, Labor, June 1947, 6 pp., U.S. Office of Education .05¢ L7.32: C79. ** Patternmaker, Metal (5-17.010) June 1947, 5 pp., .05¢, price list 33, L7.32: P27/2. Sheet-metal Layout Man I (4-80.020). June 6, 1945, reprinted 1947, 11 6 pp., .05 d, price list 33, Pr32.5228:Sh 3/3-2. Sheet-metal Worker II, (4-80.10) June 1947, 5 pp., .05¢, price list 33, L7.32:Sh3. Sheet-metal Worker, Aircraft II; (4-80.060), December 6.1944. reprint 1947, 6 pp., .05¢. Pr32.5228:Sh3/2-2. Blacksmithing II, (4-86.010), price list 33, 5 pp., .05¢, 1947, L7.32:B56. Slidefilms. -Hand Tools, 140 pictures. The Jam Handy Organization Hand and Power Hack Saws, 73 pictures. Drills and Drilling, 117 pictures. Reaming, Tapping, and Threading, 82 pictures. Finishing Rough Castings, 60 pictures.

Disston Saw, Tool, and File Manual; Henry Disston and Sons, Incorpo-

Canania ma				
Scraping, 73 pictures.	The	Jam	Handy	Organization
Rivets and Riveting, 84 pictures.	"	11	"	п
Layout Tools and Measuring Instruments, 96 pictures.	"	"	"	п
Layout Work Part I, 112 pictures.	"	11	11	
Lavout Work Part II, 133 pictures.	11	11	11	н
Turning Tools, 97 pictures.	11	11	"	11
Kinds-Parts-Safety, 66 pictures.	11	п	"	н
Operating Speeds, 58 pictures.	"	"	**	"
Carriage Controls-Feeds, 69 pictures.	n	"	"	11
Chucks - Chucking Work, 68 pictures.	11	"	11	tt .
Centers - Setting Tools - Facing, 72 pictures.	п	Ħ	11	и
Center Holes - Mounting Work -	**	"	"	11
Facing Between Centers, 57 pictures.	11	"	"	"
Turning Between Centers - Shoulder- ing, 66 pictures.	11	"	"	н
Recessing - Chamfering - Filing - Polishing - Knurling, 59 + pictures.	"	n	"	п
Taper Turning - Threading - 85 pictures.	11	"	"	и
Collets - Faceplates - Rests, 64 pictures.	n	17	"	ı

Treatise. -

Steel in the Making. A brief non-technical treatise describing the fundamentals of steelmaking; a very good article. Copyrighted, 1942.

PLASTICS

Booklets. -

The ABC of Modern Plastics.

Lecture Course on Coated Abrasives; supplement on plastics. Provides a wealth of information on sandpaper beginning in the quarries through factories to the finished products in the hands of the public.

Bakelite Corporation Behr-Manning Corporation

Plastics Jewelry . . . A Hobby or a Business . A small booklet dealing with designs, markets, projects, and plastic accessories,1947, 20 pp., .10¢.

Bodnar Industries, Incorporated

The Fabrication of Catalin Methods and Equipment, 60 pp., copyright 1941.

Catalin Corporation

Thirty-four page booklet with price list and suggested projects, copyright 1946, .50¢.

Douglas Home Craftsman

What are Plastics? (CDP-524).

The Story of an Industry.

General Electric Company

Plaskon Division, Libby-Owens Ford Glass Company

Working With Plexiglas, one of the best available booklets dealing with the working of plastics; contains excellent projects and illustrates working methods, \$1.00.

Rohm and Hass Company

Coated Abrasives in the Plastic Industry.

Behr-Manning Corporation

Plastics Fabrication Manual, gives Berton Plastics, Incorporated information on shaping, forming, cutting, etc., copyrighted.

Interlake Resin 4585 How Pressure
Paper Bases Laminaters, 4 pp.

Interlake Chemical Corporation

Interlake 4257 Liquid Glue for Binding Mineral Wool, 1946, 7 pp.

80 Makalot Molding Compounds, 1946, Interlake Chemical Corpo-4 00. ration FD Resins for Bonding Surfacing Laminating Impregnating, 1945, 7 pp. Blow Molding of Thermo-Plastics, copyright 1945. Plax Corporation Annealing of Styrene and Related Resins, copyrighted. Fabrication Polstyrene, an article based on techniques developed by the Plax Corporation, copyright 1946. Fastraverse Metal Working Presses, The Hydrulic Press 11 pp., No. 4706. Manufacturing Company All-Hydraulic Presses for Com-pression and Transfer Molding of Plastics, bulletin 4702. Plastics. - The Pressure Processing of Synthetics, bulletin 4404. Injection Molding Machines, bulletin 4802. 11 Plastics - Sheets - Rods - Tubes, American Phenolic Corporation. Plastics, price list catalogue. Berton Plastics, Incorporated. Plastics and Plywood. Carmen - Bronson Corporation Charts. -Plastic Reference Chart, large Behr-Manning Corporation chart giving complete abrasive

information on all plastics.

Data Sheets . -

Plax Polyethylene is a Designers Plax Corporation Plastic.

Data on Plax Ethyl Cellulose Products.

Data on Plax Polyethylene Products.

Plax Cellulose Acetate Butyrate Products.	Plax Corporation
Data on Plax Cellulose Acetate Products.	" "
Plax Methacrylate Rod, Tubing and Fiber.	и и
Data on Polystyrene Forms by Plax.	п
Die-cut Parts from Plax Polystyrene.	и и
Colorful Plax Plastics Blown Products.	11 11
How to Polish Plax Polystyrene Products.	11 (1
How to form Plax Polystyrene Rod.	н
How to Use Coolants with Plax Polystyrene.	н н
How to Cement Plax Polystyrene.	n n
What to Tell Machinist on Plax Polystyrene.	н п
Notes on Design and Assembly of Plax Polystyrene.	11 11
Films	
Selecting the Right Thermosetting Molding Material, technical sound film 1 of a series on Bakelite Plastics, handling charge of .50¢, 30 minutes, sound, 16 mm.	Bakelite Corporation
Product Design and Molding Technique for Thermosetting Plastics, technical sound film 2 of a series on Bakelite Plastics, 16 mm., 42 minutes, handling charge .50%.	11 11
Plastic Art, No. 146, shows the stages by which a well known sculptor conceives and executes a bronze statuary group.	Encyclopedia Britannica Films, Incorporated
Finishing Molded Parts, OE-474, 14 minutes, sound, black and white, 16 mm.	U.S. Office of Education

Origin of Synthesis of Plastic Materials, OE-466, 16 minutes.	U.S.	Office	of	Education
Method of Processing Plastic Materials, OE-467, 21 minutes.	"	"	11	"
Preparing the Charge and Loading the Mold, OE-468, 11 minutes.	11	п	"	"
Molding a Simple Part, OE-469, 11 minutes.	"	"	"	"
Molding a Part with Inserts, OE-470, 10 minutes.	"	n	"	n
Semiautomatic and Hand Molding of Intricate Parts, OE-471, 16 minute	es.	"	11	n
Setting Up the Press and Molding a Part, OE-472, 16 minutes.	"	"	"	11
Cleaning and Servicing the Press. OE-473, 12 minutes.	"	ıı	"	"
Machining Laminated Plastics, OE-475, 19 minutes.	11	"	11	11
Maintenance of Plexiglass and Lucite, MN-2218 b, U.S. Navy Department, 1945, 37 mm., sound, black and white.	n	"	"	n =
Folders				
New Liquid Plastic; the story and explanation of Castolite.	The Ca	astolit	e Co	ompany
Instruction Sheets				
Instruction sheets and working drawing for plastic sheets.	Carmen	-Bronso	on (Company
Plans				
Wheelbarrow.	Dougla	s Home	Cra	ftsman
Picture Frame, (two styles).	ır	п		я
Tie Rack.	"	"	1	
Cigarette Box.	п	н	11	

Name Plate.	Douglas	Home	Craftsman
Card Stand.		11	11
Pencil Holder.	п	"	11
Cigarette Box. No.8.	"	11	11
Modern Letter Holder.	"	"	"
Serving Tray.	"	"	11
Jewelry Box.	11	11	11

Publications. -

Plexiglas Former, (5-77.040)

December 4, 1944, 6 pp.,
.05¢, Pr.32.5228:P71.

U. S. Office of Education

CHAPTER IX

PRINTING

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Producing the School Yearbook,
copyrighted 1939. 12 pp.
producing the school year
With the help of hints and
useful suggestions, 1946
Edition. Free.

A. B. Dick Company

Fundamentals of Mimeograph
Stencil Duplication, 1947
copyrighted, consists of
fifteen explanatory lessons
on mimeograph paper, Free.

Printing Catalogue.

H. B. Rouse and Company

Films. -

Modern Lithographer; treats in detail the techniques of lithographic artists and the processes of duplicating black and white and color. No. 230, 16 mm.

Encyclopedia Britannica Films, Incorporated

Leaflets. -

Rouse Mitering Machines.

Rouse Line Gauges.

Rouse Slug Clipper.

Rouse Sticks.

Rouse Lead and Rule Cutters.

Rouse Vertical Miterer.

H. B. Rouse and Company

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Publications. -

Offset Pressman; 1945, 14 pp., (War Department Occupational Bried), No. 73, W1.63:73,.05¢.

U. S. Office of Education

Lineotype Operator; (4-44.110)
June 1947, 4pp., .05¢, L7.32:L64.

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WELDING

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Welding Instruction Book, 63 pp., elementary instructions for arc welding.

Allmand Brothers

Welding Lessons Book.

Hobart Brothers

Carbon Arc Book, 34 pp., one copy .40¢, five copies .38¢, ten copies .36 ¢, twenty-five copies .34 d.

The Oxy-Acetylene Handbook, 600 pp., \$1.50, 33 1/3 percent discount for educational purposes.

The Linde Air Products Company

Booklets. -

Precautions and Safe Practices in Welding and Cutting with Oxy-Acetylene Equipment, 56 pp., copyright 1939, published 1948.

Guide to Better Welding, 32 pp., published 1947, No. 11471.

From the Far Corners of the Earth, Norton Company No. 506.

Portable Grinding, No. 1328.

Marquette Manufacturing Company, Incorporated

Charts. -

Sparks Characteristics, No. 176.

Cross Section of Oxweld Two-Stage Oxygen Regulator Type R-64.

Cross Section of Injector Principle Welding Blowpipe Oxweld Type W-29.

Cross Section of Injector Principle
Welding Blowpipe Oxweld Type W-17.

Cross Section of Cutting Blowpipe
Oxweld Type C-31.

The Linde Air Products Company

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Use Arc Welding Equipment Safely, U.S. Office of Education industrial safety charts, series J, No. 1-6, 1946, 11.1"x43.4", (Labor Standards Division), .05¢, L16.8:Sa 1/10. Use Gas Welding Equipment Safely, industrial safety charts, series M, No. 1-6, 1946, 11"x43.13", (Labor Standards Division), .05¢, L16.8:Sa 1/13. Films. -The Inside of Arc Welding. General Electric Company The Inside of Atomic-hydrogen Arc Welding. The Story of Arc Welding. This is Resistance Welding. Manual Cutting to a Line - Freehand, U. S. Office of Education OE-186, 21 minutes, sound, black and white, 16 mm. Manual Cutting a Bevel - Freehand, OE-187, 13 minutes, black and white, sound, 16 mm. Menual Cutting a Shape - Freehand Guided, OE-188, 16 minutes, black and white, sound, 16 mm. The Guided Band Test, OE-189, 17 minutes, black and white, sound, 16 mm. OE-190, 21 minutes, black and white, sound, 16 mm. Brazing Carbide Tools, OE-241, 18 minutes, black and white, sound, 16 mm. Brazing Flanges with Silver Solder, OE-104, 18 minutes, black and white, sound, 16 mm. Hand Soldering, OE-479, 20 minutes,

black and white, sound, 16 mm.

Spot Welding, OE-295, 20 minutes, black and white, sound, 16 mm.	U. S	5. Of:	fice o	f Educa	tion
Tinning and Solder Wiping, OE-343, 26 minutes, black and white, sound, 16 mm.	" "	•	"	" "	
Testing for and Fixing Leaks in Oxy-Acetylene Welding Equipment S-1, \$3.00.	The		e Air l	Product	S
Testing for and Fixing Leaks in Oxy-Acetylene Cutting Equipment S-1A, \$3.00.	ıı	"	н	11	
Safe Handling of Oxygen and Acety- lene Cylinders and Apparatus, S-3, \$3.00.	ıı	n	п	11	
Fire Prevention and Other Pre- cautions in Welding and Cutting, S-4, \$3.00.	п	"	п	п	
(Set consisting of S-1, S-1A, S-3 and S-4 \$6.00).					
Setting Up Oxy-Acetylene Welding Equipment, W-1, \$3.00.	"	"	"	u	
Setting Up Oxy-Acetylene Welding Equipment, W-1A, \$3.00.	11	11	11	"	
Lighting and Adjusting the Weld- ing Blowpipe, W-2, \$3.00.	"	"	"	11	
Lighting and Adjusting the Weld- ing Blowpipe, W-2A, \$3.00.	11	11	11	н	
Principles of Oxy-Acetylene Welding, W-3, \$3.00.	u	"	"	н	
Fundamentals of Oxy-Acetylene Fusion Welding of Steel. Part I, W-4, \$3.00.	"	"	11	n	
Fundamentals of Oxy-Acetylene Fusion Welding of Steel, Part II, W-5, \$3.00.	"	"	"	н	
Fundamentals of Oxy-Acetylene Fusion Welding of Steel, Part III, W-6, \$3.00, (Set of W-1 to W-6 inclusive \$29.).	11	11	u	u	
Setting Up Oxy-Acetylene Cutting Equipment, C-1, \$3.00.	"	11	11	"	

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Company

AC" Arc Welders, Models 261-

44 pp.

261-C-262-262C, copyrighted 1946,

Operating and Welding Instruction Manual 180B and 180C Trindl Limited Imput Type Arc Welders, 9pp.	Trindl	Product	s Limited
Operating and Welding Instruction Manual for Models 130B and 130C Trindl Limited Imput Type Arc Welder.	11	11	"
Operating and Welding Instruction Manual for Models 100B and 100C Trindl Limited Imput Type Arc Welding.	n	"	"
Slidefilms			
Kit D, \$41.50. Welding Aluminum Flat Sheets, 64 pictures.	The Jam	Handy C	rganization
Welding Aluminum Tubes with Sheets, 49 pictures.	11 11	"	"
Fuel and Oil Tank Repairs, 29 pictures.	" "	"	п
Kit E, \$41.50. Oxy-Acetylene Cutting, 34 pictures.	" "	"	n =
Brazing and Silver Soldering, 49 pictures.	11 11	"	"
Qualifications Test for Welding, 67 pictures.	" "	п	п
Kit A, \$41.50. An Introduction to Welding, 68 pictures.	" "	"	и
Setting Up and Lighting the Welding Torch, 58 pictures.	" "	п	tr
<pre>Kit B, \$41.50. Welding Fast Repples, 31 pictures.</pre>		ıı	н
Flat Butt Welds, 45 pictures.	11 11	ti .	и
Kit C, \$41.50. Fillets Welds - Steel,75 pictures.	п п	. и	н
<u>Vertical Welds</u> - <u>Steel</u> , 38 pictures.	11 11	11	"
Tube Welds - Steel, 71 pictures.	11 11	"	II

<u>Cluster Welds</u>, 30 pictures.

<u>Welding Stainless Steel</u>, 34 pictures.

The Jam Handy Organization

Article. -

The Oldest Glue in It's Newest Form, free, James R. Withrow. 1945.

Genuine Hide Glue of Highest Quality.

Simplified Inlaying for Amateurs.

Hand Inlayers.

Veneering With Little Equipment.

Blueprints. -

Sea-Skipper, \$4.50, (5 sheets), Casein Company of America draft 2'.

Sea-Urchin, \$3.00, Inboard motor, plywood utility boat; length 17', beam 5' 6", draft 1' 3", (4 sheets).

Plywood Dinghy for Rowing, Sailing, or Outboard Motoring; length 12', beam 4' 52", price \$2.50.

Books. -

The Paint Industry; Reminiscences and Comments -- by G.B. Heckel, 700 pp., 1931.

Symposium on Paint and Paint Materials, 150 pp., 1935.

Safety in the World Today, \$1.40. Beckley-Cardy Company

Buyers Guide, No. 82.

Saw Sense, 48 pp., free.

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Franklin Glue Company

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John R. Wittsche Art Inlayers

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American Paint Journal Company

American Society for Testing Materials

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E. C. Atkins and Company

A Lecture Course on Coated Abrasives, Behr-Manning Corporation copyrighted 1946, 72 pp., one

Wood Finishing and Painting Made Easy--by R. G. Waring, 220 pp. Bruce Publishing Company

The Story of the United States Cordage Industry, copyrighted 1947, history and evolution of the rope industry.

Columbia Rope Company

Practical Furniture Finishing, by Craftsman Wood Service Company A. B. Patton, 112 pp., 1940.

Finishes, by R. C. Martin, 526 pp., 1940.

D. Van Nostrand Company, Incorporated

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Paints and Painting: A Manual on the Composition of Paints and Specifications for their uses, by G. C. Molleson, 274 pp.,1939.

David McKay Company

Local Built Display Fixtures with Douglas Fir Plywood, 19 pp.

Douglas Fir Plywood Association

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National Varnish Resins, by T.B. Ernest Bann, Limited Barry, 1932.

Spray Painting, Industrial and Commercial, 128 pp., 1941, by F. M. Crewdson.

F. J. Drake and Company

Furniture, Furniture Finishing,
Decoration, and Patching, by
A. B. Patton and C.L. Vaughn, 551 pp., 1940.

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Wood Finishes, Plain and Decorative, 1944, 361 pp., by F. N. Vanderwalker.

Government Printing Office

Protective and Decorative Coat-ings, by J.J. Mattiello and others, 349 pp., 1945, \$1.25.

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Varnish Making, by T.H. Barry and G.W. Dunster, 1943, 132 pp.

Leonard Hill Ltd.

Coloring, Finishing and Painting Wood, by A. C. Newell, 480 pp.,

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National Paint Varnish and Lacquer Association, Incorporated.

Paint Power, and How to Sell It, Lonore Kent, 352 pp., \$4.50.

Reinhold Publishing Corporation

The Stanley Tool Works

Painting, Furniture Finishing and Repairing; a compiled list of articles for craftsmen, home owners, painters, and handy men, 96 pp., 1944.

16 Plan Book, 10¢.

How to Work with Tools and Wood,

Tool Guide, 32 pp., .25 d.

National Paint Dictionary, by J. R. Stewart, 224 pp., 1942.

Stewart Research Laboratories

The Borden Company

How to Make Veneered Panels for the School and Home Workshop, by Herman Hjorth, copyrighted 1932, 7th printing, 95 pp., .75%

Principles of Tool Room Grinding, copyright 1945.

Grinding Facts, copyrighted 1946.

The Delta Story; an individual loose leaf book on all Delta equipment, 1944-45, 123 pp.

The Carborundum Company

The Delta Manufacturing Company

Projects, books and plans are published by the Delta Company at a very low cost.

Key to Color Harmony. The Glidden Company Practical Woodwork Guide, \$1.95. The Home Craftsman Modern Kitchen Cabinets, \$1.50. Ninety-Nine One Evening Projects, \$1.95. Record Book, \$1.00. Garden Furniture, \$1.50. 11 Forty Jig Saw Patterns, \$3.00. Ponderosa Pine, No. 21, its Western Pine Association properties, uses, and grades, 76 pp., 8½ x 11. Idaho White Pine, No. 22, its properties, uses, and grades, 64 pp., 8½ x 11. Larch, No. 23, its properties, 11 uses, and grades, 48 pp., 8 x 11. Sugar Pine, No. 30, its properties, uses, and grades, 56 pp., 8 x 11. Booklets. -Appalachian Hardwoods, America's Appalachian Hardwood Manu-Finest, No. 15, 11pp. facturers, Incorporated Lecture Course on Coated Abrasives Behr-Manning Corporation and its Supplement on Woodworking. Sandpaper, Its How and Why. How To Sharpen, detailed discussion on the correct sharpening abrasive.

Coated Abrasives.

Clover Manufacturing Company

The Story of Manila Fibre.

Columbian Rope Company

Rope Knowledge for Riggers, 48pp.

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ABC of Spray Painting Equipment. The DeVilbiss Company

National Homes Foundation, designed for Douglas Fir Plywood, copyrighted 1941.

Douglas Fir Weldwood, explains data on all types plywood with illustrated uses, 16 pp., 1948.

Display Signs with Douglas Fir Plywood, 15 pp., free, discusses and illustrates all types of displays.

Douglas Fir Plywood in Review, history, manufacture, and use of plywood.

Safety Rules for the Safe Operation of Power Woodworking Tools, 14 pp., .05¢, very complete listings of safety rules on powered machines.

Properties, Selections, and Suita- Forest Products Laboratory bility of Woods for Woodworking; deals with all types of wood characteristics.

Hardwoods of the South; deals with texture, planning, shaping, turning, bending, warping, cross grain, seasoning, splitting, nail and screw holding, gluing, odor and taste of Southern woods.

Proper Methods of Preparation and Application for Beautiful Wood Finishing of Interior and Exterior Woods, very good booklet on finishes.

Facts on Preserving and Finishing of Beautiful Wood; the story of modern penetrating finishes.

Inside Industry.

Vanguard Publication.

Technique of House Nailing; published by the U.S. Government Printing Office, 53 pp., November 1947, .20¢, detailed explanation of house construction with illustrations.

Douglas Fir Plywood Association

Frank Paxton Lumber Company

General Finishes Sales and Services Company

Herbert Hall Foundation

Housing and Home Finance Agency

Huther Brothers, Firthite Tipped Saws, descriptive information. 11 pp.

Refinishing and Care of Furniture, 8 pp., 1944.

Glue of the Ancients.

Just Whistle.

Craftsmans Manual.

The Handbook on Painting; an excellent guide and reference for the painters, 90 pp., free, copyrighted 1946.

Blended Beauty for Your Home; home illustrations in color.

Shop Safety; drawings and photographs illustrating general shop safety rules, 32 pp., .25 d.

Industrial Safety and Health Bibliography; alphabetic list of publications in the field of industrial safety, .50¢.

Congress Transactions, Vol. II, one to nine copies .50 d. ten or more .45¢, panel discussion on shop safety!

Refinishing Furniture, by V.A. McDuffie, 1945, 11 pp.

Proper Care and Installation of Oliver Machine Company Oliver Band Saws.

Installation, Care, and Operation of Oliver Circular Saw Benches. 36 pp.

The Roger Book of Woodworking Shop Notes; discusses woodwork as a hobby along with correct selection and equipment, 16 pp., 1948.

Auger Bits, How to Sharpen Them.

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Iowa State College of Agriculture and Mechanical Arts

Monite Waterproof Glue Company

National Lead Company

National Safety Council

Oklahoma Agricultural and Mechanical College

Rogers Isinglas and Glue Company

Russell Jennings Manufacturing Company

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Stanley Rafter and Framing Squares; copyrighted 1946, 46 pp., free, uses and explanation of the steel square.	St	tanley 3	Cools		
Nature of Abrasives, Technical data of Sterling Abrasives.	St	erling	Tool Pr	roduct	e Company
Sanding Data Sheets.		"	11	11	11
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Sight Perfection.	Th	e Glidd	en Comp	any	
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Comparative Strength Properties of Wood, .10 ¢, 3pp.	" "	n	"	н
Beautiful Wood for Beautiful Homes; illustrates plywood home scenes, copyrighted 1944, 14 pp.	United ration	States	Plywoo	d Corpo-
Let's Build a Wood Fence; 6" x 9", 16 pp., single copy free, others .05 ¢.	Western	Pine A	Associa	tion
Paneling Old or New Interiors With Real Pine, No. 32.	"	"	"	
Beautiful Paneled Walls of Genuine White Pine, No. 33.	п	"	и	
A Guide to Store and Shop Uses of Western Pine, No. 39, 16 pp., 82 x 11.	11	"	п	
Sugar Pine for Perfect Pattern, 20 pp., No. 40.	"	"	п	
Idaho White Pine Ideal for Wood Patterns, 20 pp., No. 41.	"	"	"	
The Story of Western Pines; beautifully illustrated and clearly written, free.	11	u	"	
Chestnut as a Core Wood, No. 4, copyrighted 1930.	Appalaci		ardwood	Manu-
Beech, Birch and Maple, No. 12, by George C. Morbeck.	п		"	"
Yellow Poplar, No. 13, by George G. Morbeck.	п		"	u
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Appalachian Hardwoods; for interior trim and flooring, Architect's specification data.	11		11	ıı

99 Atlas Heavy Duty Motors and Atlas Press Company Grinders, M G 3. Atlas 24" Ball Bearing Jig Saw. Atlas Belt and Disc Sander. Atlas Bearing Spinkle Shaper. ** Atlas Woodworking Tools. Use of Modern Coated Abrasives in Behr-Manning Corporation Woodworking Industries, 5pp., by Thomas Trowbridge. Old Furniture Refinished, 15 pp., Connecticut Agriculture State by G. E. Stratton. College Series of Bulletins: 1. Planer. Crescent Machine Company 2. Jointers. 3. Saw Tables. 4. Shaper. 5. Disc Sanders. 6. Mortiser. The Modern Miracle in Wood. Douglas Fir Plywood Association Foley Automatic Saw Filer. Foley Manufacturing Company For Natural Beauty of Wood, Arm-R General Finishes Sales and Brand. Sealers, preservatives, Service Company finishes; a series of bulletins in a booklet form 'bound' which presents methods of preparation and application for beautiful wood finishing of interior and exterior woods, free. Refinishing Furniture and Floors; Georgia University College 12 pp., by W. V. Dowdy. Agriculture Extension Service White Wash and Cold Water Paints; bulletin 304-E, 15 pp. National Lime Association Refinishing Old Furniture; 30 pp. by F. E. Wright, bulletin 295. New York State College Agriculture Cornell Extension

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A Primer on Grinding Wheel Safety.

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The Kiln Drying of Southern Yellow Pine Lumber, Tech.Bul. 165.	ıı	" "	"	и	
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Strength-moisture Relations for Wood, Tech. Bul. 282, .20 %.	11 1		п	п	
The Strength and Related Properties of Redwood, .10¢, Tech. Bul, 305.	п ,	t 11	"	"	
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States, .35¢, Tech. Bul.479.					
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MP-162, Our Forests, What They Are and What They Mean To Us:	U. S Fore	est Servic	9	Agricult	ure
MP-162, Our Forests, What They Are and What They Mean To Us; .05¢, 38 pp. MP-290, The Work of the U. St.	Fore	est Servic	р ө "	Agricult	ure
MP-162, Our Forests, What They Are and What They Mean To Us; .05¢, 38 pp. MP-290, The Work of the U. St. Forest Service, .10¢, 32 pp. MP-388, Living and Forest Lands.	Fore	est Servic	р ө "	Agricult	ure
MP-162, Our Forests, What They Are and What They Mean To Us; .05¢, 38 pp. MP-29C, The Work of the U. St. Forest Service, .10¢, 32 pp. MP-388, Living and Forest Lands, .10¢, 47 pp. MP-395, Forestry for 4-H Clubs,	Fore	est Servic	" "	Agricult	ure
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MP-162, Our Forests, What They Are and What They Mean To Us; .05¢, 38 pp. MP-29C, The Work of the U. St. Forest Service, .10¢, 32 pp. MP-388, Living and Forest Lands, .10¢, 47 pp. MP-395, Forestry for 4-H Clubs, .10¢, 50 pp. MP-543, Some Plain Facts About The Forests, .10¢, 22pp. MP-600, Water and Our Forests.	Fore	est Servic	" " "	Agricult " " "	ure
MP-162, Our Forests, What They Are and What They Mean To Us; .05¢, 38 pp. MP-29C, The Work of the U. St. Forest Service, .10¢, 32 pp. MP-388, Living and Forest Lands, .10¢, 47 pp. MP-305, Forestry for 4-H Clubs, .10¢, 50 pp. MP-543, Some Plain Facts About The Forests, .10¢, 22pp. MP-60C, Water and Our Forests, .10¢, 29 pp. FB-1492, Arbor Day, Its Purpose	Fore	est Servic	" " "	Agricult " " "	ure

G-6, Forest Fires and How You Can Prevent Them, 12 pp.	U	. s.	Department	of	Agriculture
Synthetic Resin Glues.	"	"	"	11	ır
Fire Retarding Coatings.	п	11	11,	11	n .
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Machining and Related Characteristic of Southern Hard- woods, U.S.D.A. Tech. Bul. 824, .25 ¢.	11	"	н	н	II
The Air Seasoning of Wood, U.S.D.A. Tech. Bul. 174.	"	п	11	n	п
The Gluing of Wood, U.S.D.A. Bul.1500.	"	711	n	11	"
Moods, U.S.D.A. miscellaneous circular 66, .25%.	"	"	II	11	п
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Paints, U.S.D.A. Tech. Bul. 804,	н	n	n .	H	
Famous Trees, U.S.D.A. miscellaneous publication 295, .20 d.	11	"	n	"	а
Kiln Drying Handbook, U.S.D.A. bulletin 1136, .304.	"	n	n	u	n
Selection of lumber for Farms and Home Building, U.S.D.A. farm bulletin 1756, .05%.	"	"	n	"	
Why Some Wood Surfaces Hold Paint Longer Than Others, U.S.D.A. leaflet 62, .05 ¢.	"	п	н	n	п
Wood Handbook: basic information on wood as a material of construction with data for its use in design and specifications, U.S.D.A. unnumbered publication, .75¢.	11	n	n	"	н

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Charts. -

Wall chart illustrating fifting instructions for hand saws, rip saws, and panel saws.

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Hand Saw Chart for Crosscutting.

File Chart.

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Forging Operations on the Auger Bit.
Charts of Operation on Auger Bits.

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American Logging and Soumill	U. S. Off		
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Floors, leaflet 56.

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How to Plan a School Workshop; The Delta Manufacturing Company discussion on shop planning, \$1.00.

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Child's Slide, No. 63, .50¢.	11	11	11	н
Wheelbarrow, No. 66, .25¢.	11	"	11	"
Barge Boat-Sandbox, No. 77, .35¢.	11	п	п	11
Child's Playtable, No. 117, .25¢.	11	"	11	"
Dream Doll House, No. 33, .50¢.	11	"	11	"
Express Wagon, No. 44, .35¢.	"	11	п	ì
Shoeshine Box, No. 45, .25¢.	"	"	n	11
Plant Holder, No. 46, .25%.	"	11	11	н
Clown Wheel Toy, No. 47, .25¢.	"	"	11	tr
Horsehead Pipe Rack, No. 49, .25%.	11	11	rr .	17
Complete Circus, No. 48, .25¢.	н	11	п	
Airolane Group, No. 50, .25¢.	11	"	"	м
Pony Ride Rocker, No. 53, .35¢.	"	"	п	st
Hobby Horse, No. 54, .20¢.	11	11	п	
Tommy Gun, No. 58, .20 %.	11	11	11	N
Doll Carriage, No. 59, .35¢.	11	11	11	н
Dock-Derrick-Ship, No. 60, .25¢.	n	"	u .	u
Baby Doll Carriage, No. 61, .25¢.	"	11	11	п
Machine Gun, No. 62, .25g.	11	11	н	11

Window Valance, No. 1, .25 d.	Easi-	Bild	Pattern	Company
Peasant Shelf, No, 2, .25 ¢.	"	"	"	"
<u>Kitchen Unit</u> , No. 3, .50¢.	"	11	- 11	11
Narrow Shelf, No. 4, .25¢.	"	11	"	
Kitchen Shelf, No. 5, .25¢.	"	11		11
All-purpose Shelf, No. 6, .25¢.	it	11	***	"
Knife and Implement Rack, No. 8, .25	¢."	11	. "	11
Undersink Enclosure, No. 41, .50¢.	11	11	11	11
Service Center, No. 80, .60¢.	"	"	п	"
Garden Hotbed, No. 12, .25¢.	11	. 11	н	"
Handy Workbench, No. 15, .25¢.	11	11	"	
Window Box, No. 19, .25¢.	"	11	"	п
Tool Chest, No. 44, .35¢.	11	11	15	n
Single and Double Bed, No. 68, .25 %.	11	11	"	u
Tool Chest, No. 71, .25%.	"	"	· ·	"
Outdoor Fireplace, No. 73, .25¢.	-11	"	"	"
Lawn Ornaments, No. 81, .25¢.	11	11	"	19
Utility Boat, No. 85, \$1.00.	11	11	11	24
Picnic Table, No. 22, .25¢	11	11	"	•
Lawm Settee, No. 39, .35¢.	11	11	11	18
Lawn Chair, No. 32, .25g.	. 11	11	"	u
Foldaway Settee, No. 55, .35%	11	н	n	11
Foldaway Chair, No. 56, .25 %	"	n		*
Peasant Bench, No. 57, .25¢.	11	11	tt	*
Terrace Table, No. 75, .35¢.	.11	ft	11	и
Terrace Chair, No. 76, .25¢.	11	11	п	**
Garden Chaise, No. 78, .35%.	11	11	"	u
Lawn Glider, No. 155, .50¢.	11	11	"	Ħ

Junior Sriarcliff Chair, No. 132, .25 ¢.	Easi-Bild Pattern Company	
Plans		
Set of eight projects on abrasives, cilstones, etc.	Behr-Manning Corporation	
Alphabet and Numerals for Monogram Use, No. 522.	Chicago Wheel and Manu- facturing Company	
Door Knocker, No. 195.	и и и и	
Cribbase Board, No. 304.	11 11 11 11	
Accessories for Model Makers, No. 520.	11 11 11 11	
Tropical Leaf Tray, No. 315.	и и и	
Carved Broaches, No. 524.		
Carved Model 1835 Harpers Ferry Arsenal Gun, No. 507.	n u u n	
Elementary Carving of a Scotty, No. 302.	и и и 5,	
A Practical Glass Fire Screen, No. 301.	11 11 11	
Doll-House Furniture, sheet No. 1, buffets, overstuffed chair and davenport, desk.	Rogers Isenglass and Glue Company	
Sheet No. 2, spool beds, rockers, windsor chair.	и и и	
Sheet No. 3, nut bowls.	и и и	
Sheet No. 4, sewing chest.	и и и	
Sheet No. 5, tilt top scrap hamper.	и и и	
Sewing Kit, Towel Rack, Rocker, Chest of Drawers, No. 19.	Stanley Tool Works	
Price List of Projects, average twenty-five and fifty cents per plan.	Easi-Bild Pattern Company	
<u>Poys</u> , No. 16.	Stanley Tool Works	
Snack Table, Trays, No. 17.	п п п	

Tables, No. 18.	Stanley	Tool	Works	
Hanging Shelves, No. 1, .10 gset.	"	. 11	"	
Table Lamps, No. 2, .10 d set.	"	"	11	
<u>Trays</u> , No. 3, .10 g set.	"	11	ıı	
Bedside and Small Tables, No.4, .10 g set.	u	"	II.	
Small Gift Projects, No. 5,.10 d.	n	11	11	
Small Gift Projects, No. 6,.10¢.	11	11	11	
Mirrors, Table, Foot-stool, No.7,	п	11	n	
Smoking and Magazine Stands, No.8,	"	11	11	
Boxes and Chests, No. 9, .10¢.	11	11	"	
Tables and Stands, No. 10, .10¢.		11	п	
Workshop Equipment Lawn Chair, No. 11, .10¢.	u	11	"	
Household Articles, No. 12, .10 d.	"	"		
Coffee Table, Bookshelf, End Table, No. 13, .10 d.	"	11	"	
Bird Houses and Garden Furniture, No. 14, .10¢.	"	"	11	
Marazine Racks and Bench, No. 15,	n	11	11	
Bunk Bedroom Details, DS-1.	Western	Pine	Association4	
Pine Paneled Staircase Details, DS-2.	"	"	II .	
Modern Welch Dresser Details, DS-3.	"	11	11	
Knotty Pine Suilt-in Bar, DS-4.	"	11	"	
The West-Pine Home, DS-5.	н	ıı	11	

Western Pine Association, single copies free, over one copy $l_{2}^{1} \neq$ each, over fifty copies .Ol $\not\in$

Posters. -

Decalcomanis; a selection of forty-seven different danger, caution etc., for machine frames, post guards, etc., 2 x 32, 1-9 copies .10¢.

National Safety Council

A selection of twenty-five safety posters suitable for shop display, \$1.13 per packet, 8½ x 11, two colors.

U. S. Department of Agriculture Forest Service

How a Tree Grows, No. W-3, (16" x 21").

Smokey Bear-Forest Fire Prevention, No. W-7,14" x 20".

Set of six farm forestry posters, No. W-10, 14" x 20".

Publication. -

Products of American Forests, by J.A. Hall and T.J. Mosley, U.S.D.A. unnumbered publication 1939, revised August 1946, .20%.

U. S. Office of Education

Properties, Selection and

and Suitability of Woods for
Woodworking, by D.G.Coleman,
Industrial Arts and Vocational
Education, December 1940 February 1941.

Sidelights on Southern Hardwoods, by E. M. Davis, Southern Lumberman, December 15,1934.

Some Books on Wood; report R-399, revised October 1946.

Some Common Fallacies About Wood, report R-1167, 1938.

Some Reference Books on Domestic and Foreign Woods; report R-1479, March 1945,

Texture of Southern Hardwoods and Locality of Growth, by E.M. Davis, Southern Lumberman, December 15,1933. п и п п

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Glue and Plywood.	U.	s.	Office	of	Education
Growth, Structure, and Identi- fication of Wood.			"		11
Mechanical Properties of Wood.	11	11	11	11	п
Lumber Consumption Trends in the Furniture Industry; R.P.A. Johnson, Hardwood Record, January 1939.	"	"	11	"	11
Possible Uses of Improved Woods and Wood-base Plastics in the Furniture Industry, by A. J. Stamm. Wood Products, January 1945.	"	"	11	11	н
Judging the Quality of Sugar Maple, by B. H. Paul and N. A. Norton. Wood Products, March 1936.	11	11	"	"	"
Variations in the Wood of Yellow- Poplar from the Southern Appalachian Region, by B.H.Paul and N.A. Norton. Southern Lumberman, March 15,1937.	п	11	п	п	11
How Growth Affects Quality in Hickory and Ash, by B.H. Paul. Hardwood Record, January 10,1925.	11	"	II	"	u
by B. H. Paul. Southern Lumberman, April 6, 1929.	11	11	"	"	"
Overcup Oak for Lumbers, by R. D. Garver, Southern Lumberman, March 1935.		11	"	"	n
Swamp Chestnut Oak for Lumber, by R. D. Garver, Southern Lumberman, August 15, 1935.	11	n	"	13	•
Water Oak for Lumber, by R. D. Garver, Southern Lumberman, June 15,1934.	"	"	11	"	N
Fabrication of Wood Products at Small Sawmills and Woodworking Plants, by Fredrick B. Malcolm, report R-1700, December 1947.	11	"	u i	•	п
Latest Developments in Small Saw- mills, by F. B. Malcolm, Wood, May 1947.	"	11	н .	,	-

Laurel, Tanbark and Chinquapin, by E. M. Davis, California Lumber Merchant, December 17,1947			CITIGE	01	Education
Operating Small Sawmills in Wartime, by C. J. Telford, U.S.D.A. miscellaneous publication 509, 1943.	"	11	"	11	"
Woodworking Machines, by E.M.Davis, report R-1706, March 1948.	"	ti .	"	11	"
Woods and Mill Studies of the Manufacture of Birch, Beech and Maple Lumbers in the Northeast, report R-1217, December 1939.	"	"	"	11	п
The Density of Southern Pine; its significance in terms of properties and grades, by E. M. Davis, Southern Lumberman, December 17, 1927.		"	"	"	"
Lumber Grades vs. Site Quality of Second-growth Douglas-Fir, by B. H. Paul, West Coast Lumberman, November 1947, report R-1688.	"	"	ı	11	ıı
Saw-log Grades for Hardwoods - Central States Studies, report D-1699, November 1947.	"	"	п	II	"
Why Should Hickory be Graded on Color Specifications? by H.B. Paul Woodworking Industries, April, 1925	,	"	"	**	u
Properties and Uses of Some of the More Important Woods Grown in Brazil, by E. E. Horn, report R-83, 1918.	"	11	"	"	"
Manufacture of Veneers, report R-285, 1939.	"	"	"	"	11
Waste in Veneer Manufacture, by E. M. Davis, report R-1493.	11	"	ıı	"	п
Seasoning of Wood, use of wood in aircraft construction.	11	11	ıı	11	н
Wood Finishing Subjects.	11	11		11	п
Wood Preservation.	**	11	**	11	**

Second-growth Southern Hardwood Timber, by B. H. Paul, Southern Lumberman, December 15, 1936, report R-1120.					Education
Wood, A Material with a Future, by F. J. Champion, Wisconsin Carpenter and Builder, Convention number, 1936, report R-1119.	"	11	ıı	"	"
Flexible Logging Equipment Aids Utilization, West Coast Lumberman, September 1, 1926.			. 11	11	н
Use and Adaptation of Power Saws for Pulpwood Harvesting, by J. Harry Rich, Southern Lumber- man, December 15, 1944.	11	11	"	"	n
Relation of Tree Size to Output for Southern Hardwood, by R. D. Garver and R. H. Miller, Southern Lumberman, February 15, 1934.	"	11	п	ı	"
Building Contractor, Light Con- struction, 18 pp., 1946, (War Department Brief) .05¢, W 1. 63:101.	"	"	"	"	"
Job Descriptions for Lumber and Lumber Products Industries, Including Sawmill, Planning - mill, Excelsior and General Woodworking Jobs, 347 pp., 1939, \$1.25, L 7.16:L 97.	"	"	11	"	"
Painter 1 (5-27.010) June 1947, 5 pp., .05¢, L7.32:P 16.	"		11	"	"
Painter, Aircraft, September 21, 1945, reprint 1947, 5 pp., .05¢, Pr 32.5228:P 16/1-2.				u	
Painter, Construction No. 1.63:74, price list 33, 12 pp., .05%.		1 1		11	
Patternmaker, Wood (5-17.020) June 1947, 6pp., .05¢, L 7.32: P27.			п н	"	"
Upholsterer, Furniture (4-35.710) June 1947, 4pp., .05¢, L 7-32/2:Up3.		11	11	11	п

Patternmaker 2 (5-17.248) 1944, 6 pp., .05¢, Pr32.5228:P27/3.	U	.s.	Office	of	Edu	cation
Upholsterer 2 (4-45.720) 1947, 6 pp., L 7.32:Up3, .05¢.	"	11	"	"		11
Millwright 1 (5-78.100) June 1947, 4 pp., .05¢, L 7.32:M62.	11	"	11	"		ff.
Carpenter No. 1.63:82, 14 pp., price list 33, .05¢.	11	n	11	11		11
No. FS 5.123:145, Light Frame House Construction, technical information for use of the apprentice and journeyman carpenter, reprint 1940, Vocational Division Bulletin 145, .45¢, 214 pp.		n	"	"		11
Carpenter 1 (5-25.110) price list 33, 5pp., .05¢, L 7.32:C 22.	"	n	п	**		n
Cabinetmaker 1 (4-32.100) price list 33, 5 pp., .05¢, L 7.32: Cll.	11	"	"	"		n
Forest Trees and Forest Regions of the United States, U. S. D. A. publication 217, .10¢.		s. ltu	Depart: re	ment	of	Agri-
Knots in Second-growth Pine and the Desirability of Pruning, miscellaneous publication 307, .10¢.	"	"	"		11	n
Manual on Preservative Treatment of Wood by Pressure, miscellane- ous publication 224, .15¢.	"	"	"		11	11
Products of American Forests, .20¢.	11	11	"		11	п
Our Forests: What They Are and What They Mean to Us, publication 162, .10¢.		n	"		"	п
Use and Abuse of Wood in House Construction, publication 358, .10 ¢.	"	11	11		"	**
The Air Seasoning of Wood, U.S.D.A. technical bulletin 174, .35 ¢.	11	11	"		"	"
The Forest Products Laboratory: A Brief Account of Its Works and Aims, U.S.D.A. miscellaneous publication 306, .15%.	11	11	n		"	71

				129
Reports				
Important Factors in Gluing with Animal Glue, No. R-869, 2 pp.		s. De	epartme	ent of Agri-
Slidefilms				
Belt Sander, 62 pictures.	The	Jam	Handy	Organization ⁵
Lathe: Parts, Spindle Turning, 74 pictures.	"	"	"	11
Lathe: Faceplate Turning and Other Operations, 35 pictures.	11	"	"	п
Planer, 47 pictures.	"	11	"	"
Jointer, 62 pictures.	"	11	н	"
Circular Saw; parts- installing a blade, 74 pictures.	"	"	11	II .
Circular Saw; setting up- operating, 40 pictures.	"	"	"	11
Play Safe and Work Safely, 59 pictures.	The	Jam	Handy	Organization ⁶
Maintaining a Safe Shop, 38 pictures.	11	"	"	**
Safety Inspection, 45 pictures.	-tt	-11	u	н
Training for Emergencies, 65 pictures.	11	11	"	11
Treatment for Bleeding-Shock-	11	11	11	11
Preventing Infection, 61 pictures.	11	11		
Aid for Injuries-Fainting-Burns, 57 pictures.	11	rt	11	11

Eve Protection, 55 pictures.

Tool Grinder, 46 pictures.

Hand Tools-Hammers-Saws, 41 pictures.

⁵ The Jam Handy Organization, Woodworking Kit \$51.60.

⁶ The Jam Handy Organization, Safety Kit \$30.00.

Planes, Bits, Knives, Chisels Screwdrivers, Files, 52 pictures.	The	Jam	Handy	Organization
Drill Press, 63 pictures.	tt	11	п	11
Jig Saw, 76 pictures.	11	11	11	"
Band Saw, 79 pictures.	11	"	11	11
Disc Sander, 31 pictures.	11	11	11	"
Power Supply, 87 pictures.	11	15	11	"
Woodworking Unit.	Key	ston	e View	Company
Technical Notes				
The Nailing of Boxes, No. B-10.	For	est	Produc	ts Laboratory
Method of Determining Moisture Content of Wood, No. B-11.	"	'	"	11
Correct Moisture Content of Lumber, No. D-5.	ı	•	11	11
Government Publications of General Interest on Wood and Trees. No. D-6.	•	'	11	11
How to Distinguish Black Ash from Commercial White Ash Lumber, No. D-11.	•	'	11	. 11
Uneven Coatings of Wood Cause Warp- ing, No. D-12.		•	11	u
Strength of Commercial Liquid Glues	, '	1	11	"
Water Resistant Glues, No. F-4.		ц	11	н
Moisture Content of Wood at Different Humidities, No. F-13.		"	11	"
Effect of Time of Cutting Timber on its Durability, No. F-15.		**	12	
Comparative Durability of Green and Seasoned Timber, No.F-33.		**	"	н
from Live and Dead Trees, No. 101.		u	"	"

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rorest	rroducts	Laborator	У

Comparative Decay Resistance of Heartwood of Different Native Species when used Under Conditions That Favor Decay, No. 229.	Forest	Products	Laborator
Chemical Treatment of Surfaces Improves Glue Joints in Certain Woods, No. 232.	ıı	"	"
Approximate Air Seasoning and Kiln Drying Periods for Inch Lumber, No. 233.	"	"	"
Longitudinal Shrinkage of Wood, No. 234.	11	"	"
How to Make a Laminated Diving Board, No. 244.	"	11	"
Nailing Dense Hardwoods, No. 247.	"	"	"
Fire-retardant Paints Contain- ing Borax, No. 249.	"	"	"
The White Pine Group, No. 215.	u	"	n
Veneered and Solid Furniture, No. 197.	"	"	"
The Identification of Douglas Fir Wood, No. 198.	"	"	"
Water-Resistant Cold Press Blood Albumin Glue, No. 202.	11	"	ıı
Glues for Use with Wood, No. 207.	11	t!	"
The Structure of a Softwood, No. 209.	11	11	"
The Structure of a Hardwood, No. 210.	ıı	н	ti .
Strong and Weak Glue Joints, No. 211.	11	11	
The Detection and Relief of Case- hardening, No. 213.	п	"	11
Southern Yellow Pine, No. 214.	11	u	п
The Manufacture of Rayon, No. 217.	11	14	п
Weights of Various Woods, Grown in the United States, No. 216.	11	п	"
Weathering and Decay, No. 221.	и	11	*

A Factory Method for Testing Hardness of Glue Joint, No. 223.	Forest	Products	Laboratory
Cause and Prevention of Blue Stain in Wood, No. 225.	11	"	n.
Glues for Wood in Archery, No. 226.	11	п	· ·
Tooth Planing or Sanding Not Necessary to Effect Strong Glued Wood Joints, No. 227.	"	"	"
Aluminum Coatings for Moisture Proofing Wood, No. 228.	"	u.	
Overheating Reduces Strength of Animal Glue, No. 104.	rt .	ıı	11
Strength of Southern Pine and Douglas Fir Compared, No. 119.	11	п	11
Properties of Ordinary Wood Compared with Plywood, No. 131.	11	"	"
The Crate Comer, No. 134.	11	u	II .
Occurence and Removal of Glue Stains, No. 146.	11	11	u z
"Virgin Growth" and "Second Growth", No. 153.	"	"	n
Copper Salts Improve Casein Glue, No. 170.	"	н	ıı
Red Hickory as Strong as White Hickory, No. 171.	n	11	u
Hardwood and Softwood Drying Schedule	, "	"	a
Comparative Strength of Air-dried and Kiln-dried Wood, No. 180.	"	"	"
Coatings for Minimizing Changes in the Moisture Content of Wood, No. 181.	11	п .	•
Coatings that Prevent End Checks, No. 186.	n	"	и
Differences Between Heartwood and Sapwood, No. 189.	п	"	II.

Starved Glue Joints, No. 193. Forest Products Laboratory

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Some Books and Pamphlets on Paints, Painting, and Wood Finishing, No. 195.

Short Notes on Wood, a series Yates-American Machine Company of short explanatory articles on the various woods.

Work Sheets. -

Removing Old Finish from Furniture, General Finishes Sales and Pianos, Cabinets, etc., No. 1. Service Company

Piano Refinishing, No. 2.

Furniture Refinishing, Antique-Modern, removing old finish, No. 3.

Finishing Floors, No. 4.

Reproducing - "Short Talks on Wood" Yates American Machine Company card series available to teachers.

CHAPTER XII

CRAFTS

Archery. -

How to Make Modern Archery

Tackle, by Tracy L. Stalker,
deals with all phases of
archery and archery equipment.
Excellent on the making of
bows, bowstrings, arrows, etc.
Copyrighted 1948, 34 pp.,
\$1.00.

The Borden Company

Aviation. -

Aviation Education, a guide for teachers.

The Link Trainer as a Classroom Demonstrator.

The Link Between Your Classroom and the Air Age.

Aviation Education, a series of unit studies in aviation, 75 pp., copyrighted 1946.

ing control line kits .10 ¢.

Mainliner Meals, slidefilm of thirty frames. Explains airline meal preparation.

Air Transportation Jobs and You, slidefilm of thirty-five frames. Describes jobs in air transportation.

Global Concepts and the Age of Flight, slidefilm. Explains map projections, global geography and global flight.

Of Men and Wings, traces the development of coast to coast air mail and passenger service from 1920 to 1947. Sound, 18 minutes, 16 mm.

Link Aviation Devices, Incorporated

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Polks Model Craft Hobbies

United Air Lines

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Highway to Hawaii, by air across United Air Lines the Pacific to Honolulu. Sound, 28 minutes, color, 16 mm.

Yellowstone and the Grand Tetons, by air to the Yellowstone. Sound, 30 minutes, color, 16mm.

Coast to Coast Geography From the Air, slidefilm of 53 frames, shows aerial patterns of the United States.

Research Engineering, Aircraft Developments, Airports, slidefilm of 24 frames, introduces airline research engineering and interprets the flying wing.

Meteorology and Navigation, slidefilm of 24 frames, develops an understanding of meteorology and navigation in relation to aviation.

Foundry. -

Standard Foundry Equipment Catalogue, Sterling Wheelbarrow Company 56 pp.

Lapidary. -

Manufacturers of Diamonds and Lapidary Faceting Tools, facts about diamonds, exhibition, ordering etc.

Princeton Tool Company

Norton Abrasives for the Lapidary. Norton Company

Leather. -

The Story of Leather, deals with the manufacture of high grade Chrome Calf and Side Leather, copyrighted 1935, 80 pp.

The Chio Leather Company

Handicraft Supplies, chiefly leather. J. C. Larson Company

Osborn's Leather Craft, catalogue 66 pp.

Osborn Brothers Supply Company

Leather Craft Tools, folder. The William Schollhorn Company

Leather Work, film illustrating cutting and designing a coin key purse. Silent, 15 minutes \$1.50; Sound, 10 minutes \$2.00, 16 mm.

Leather Making, two-reel film \$60. less 10 per cent for educational interests.

Lets Make Toys, two-reel colored film, \$150.

Leather, black and white film, 800 feet, 16mm., free for the cost of transportation.

Leather, one reel, silent, \$24.

Handbook of Practical Leather Horton Handicraft Company Projects, 28 pp.

Plumbing. -

A manual of specifications and roughing in dimensions covering Josam Drainage Products, \$1.00.

Reedcraft. -

Supply Catalogue.

Ship Modeling. -

Polk's Shipyara, 1946 edition, Polks Model Craft Hobbies pp., .35 ¢.

Silk Screen .-

Silk Screen Supply Catalog.

Soap Sculpture. -

A manual on soap sculpture describing and giving instructions with illustrations.

Brandon Films Incorporated

Library Films Incorporated

The Chio Leather Company

Encyclopedia Britannica Films Incorporated

Josam Manufacturing Company

American Reedcraft Company

Silk Screen Supplies Incorporated

The National Soap Sculpture Committee

CHAPTER XIII

SUMMARY AND CONCLUSIONS

This study involves four main objectives which are:(1) to annotate industrial arts teaching aids, (2) to determine the extent of the educational departments in the industrial firms, (3) to determine the free and low cost teaching aids available for the industrial arts teacher, and (4) to educate the teacher and pupil as to the materials available and thus educate them for better buying.

The study included well over six hundred firms and organizations in the United States and a few in England. The summary and conclusions are grouped under the following:

- The annotated listing is included within this thesis.
 From time to time more may be added or deleted as required.
- Prices for all the aids, if known, are listed with the aid, otherwise the aid is probably free.
- 3. General use of this list with application for the aids from the various concerns, will acquaint each teacher and each pupil with the various firms and their products.
- 4. The following page shows a chart which illustrates the growth of the educational departments as such, in firms throughout the country. If one is to remember that only a few years ago firms had no interest in education, one can readily see that education in industry is on the increase.

- 655 Letters mailed to firms throughout the United States.
- 364 Answers received.
 - 16 Letters unclaimed.
- 62 Firms with no educational department; produce no aids.
- 63 Firms have an active educational department with such title.
- Firms with no educational department, but cooperate with educational programs and produce helpful material.
 - Firms with an apprenticeship program and or very active sales department which would correspond to an educational department.

BIBLIOGRAPHY

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- School Shop, (April 1947). Educational Press Association of America, Ann Arbor, Michigan.
- The <u>Kit-A-Log</u> (1946 Fall Semester). Powers Publishing Company, 333 N. Michigan Avenue, Chicago 1, Illinois.
- Teaching Aids For the Asking, Homer J. Smith, Associate Professor of Industrial Education, University of Minnesota. The University of Minnesota Press, Minneapolis, 1929.
- Vocational Instructor's School Shop Handbook. Issue No.1, Part I, (Spring 1947). Vocational Arts Publishing Company, Incorporated, Box 909, Grand Central Annex, New York 17, N.Y.

Gentlemen:

One of the major educational needs among Industrial Arts Teachers is a record of the various sources of material and teaching aids. Therefore, I have selected as a project the acquisition and classification of materials made available by the various manufacturers and dealers in school shop supplies.

A number of companies have contributed very materially through their educational program to the industrial teaching procedures. The contribution made by your company in this respect has been recognized, and I therefore am contacting you for more detailed information regarding your program as well as your future plans for the extension of such a program.

Will you assist me in this thesis study by answering the following questions and mailing me any samples of literature or instructional material which you feel will give assistance to the industrial teacher?

- 1. Do you maintain an Educational Department?
- 2. Who is the Director of the Educational Department?
- 3. Does he work with school authorities and teachers of Industrial Arts in the conduct of their programs?
- 4. Do you prepare and circulate instructional material such as tool and equipment charts, teaching aids, job sheets, safety rules etc.?

Your cooperation in conducting this study will be extremely helpful to the shop teachers and will be greatly appreciated by me personally.

Yours very truly,

Russell Blowers
Industrial Arts Instructor

RB:1r

APPENDIX B

A. B. Dick Company 720 West Jackson Boulevard Chicago 6, Illinois

Abrasive Machine Tool Co. East Providence 14, R.I.

Air-Speed Tool Company

Alcoa Library 801 Gulf Building Pittsburgh 19, Pennsylvania American Welding Society

Allied Radio Corporation 833 West Jackson Boulevard Chicago 7, Illinois

Allmand Brothers Holdrege, Nebraska

Pittsburgh 19, Pennsylvania Cincinnati 2, Ohio

American Art Clay Company
4717 West Sixteenth Street
Indianapolis 8, Indiana

Armour and Company
1355 West 31st. Street
Chicago 9, Illinois

American Handicrafts Company, Inc. Armstrong Brothers Tool Co. 45-49 So. Harrison Street 301 N. Francisco Avenue East Orange, New Jersey Chicago 12, Illinois

American Iron and Steel Institute Atlantic Saw Manufacturing Co. 350 5th Avenue New York, N.Y.

American Lead Pencil Company Atlas Press Company Hoboken, New Jersey

American Paint Journal Company Bakelite Corporation St. Louis, Missouri

American Phenolic Corporation 1830 So. Fifty-Fourth Avenue Barrett Equipment Company Chicago Cicero 50, Illinois

American Saw Mill Machinery Co. Hackettstown, New Jersey

American Society for Testing Materials Philadelphia, Pennsylvania

Adjustable Clamp Company
417 North Ashland Avenue
Chicago 22, Illinois

American Steel and Tin Plate Co.
Frick Building
Pittsburgh, Pennsylvania

Air-Speed Tool Company American Type Founders Sales
Los Angeles 44, California Corporation
200 Elmora Avenue Elizabeth B, New Jersey

33 West 39th Street New York 18, N.Y.

AMMCO Tools, Incorporated Commonwealth Avenue North Chicago, Illinois

Appalachian Hardwood Manu-Aluminum Company of America facturer, Incorporated 801 Gulf Building 414 Walnut Street

157 Brewery Street New Haven 11, Connecticut

Kalamazoo 13D, Michigan

300 Madison Avenue New York 17, N.Y.

2ist and Cass Streets St. Louis 6, Missouri Bausch and Lomb Optical Co. Rochester 2, New York

Beckley Cardy Company 1632 Indiana Avenue Chicago, Illinois

Beebe Brothers Manufacturers 2724 Sixth Avenue So. Seattle 4, Washington

Behr-Manning Corporation Division of Norton Company Troy, New York

Berkeley Models, Inc. 140 Greenpoint Avenue Brooklyn 22, New York

Berton Plastics, Inc.
New York 10, N.Y.

B
Betheleham Steel Company
Bethelehem, Pennsylvania

Black Drill Company 1400 East 222nd Street Cleveland 17, Ohio

Blackhawk Manufacturing Co. Milwaukee 1, Wisconsin

Bodnar Industries, Incorporated 19 Railroad Avenue New Rochelle, New York

Boice Crane Company 930 W. Central Avenue Toledo, Ohio

Brandon Films, Incorporated 1600 Broadway
New York 19, N.Y.

Brown and Sharpe Manufacturing Company Providence 1, R.L.

Bruce Publishing Company Milwaukee, Wisconsin

Buck Brothers, Incorporated Millbury, Massachusetts

Buss Machine Works Holland, Michigan

Canedy-Otto Manufacturing Co. Chicago Heights, Illinois

Carboloy Company, Incorporated Detroit 32, Michigan

Carmen - Bronson Company 165 East Third Street Mount Vernon, N. Y.

Casein Company of America 350 Madison Avenue New York 17, N.Y.

Castle Films, Incorporated 30 Rockefeller Plaza New York 20, N.Y.

Catalin Corporation of America One Park Avenue New York 16, N.Y.

Champion Blower and Forge Co. Lancaster, Pennsylvania

Champion DeArment Tool Co. Meadeville, Pennsylvania

Charles Beseler Company 60 Badger Avenue Newark 8, New Jersey

Chas. D. Briddell, Incorporated Crisfield, Maryland

Chicago Wheel and Manufacturing Company 1101 West Monroe Street Chicago 7, Illinois

C. Howard Hunt Pen Company Camden, New Jersey

Cincinnati Milling and Grinding Machines, Incorporated Cincinnati 9, Ohio

Clark Equipment Company Buchanan, Michigan Clarks Sanding Machine Co. Muskegon, Michigan

Clemson Brothers, Incorporated Middletown, New York

Clover Manufacturing Company Norwalk, Connecticut

Columbian Rope Company 309 Genesee Street Auburn, New York

Concord Radio Corporation 901 W. Jackson Boulevard Chicago 7, Illinois

Copper and Brass Research Asso. 420 Lexington Avenue New York, N.Y.

Covel Manufacturing Company Benton Harbor, Michigan

Craft Shop 124 Ford Avenue Wyandotte, Michigan

Craftsman Wood Service Company Chicago, Illinois

Crescent Machine Company Leetonia, Ohio

C-Thru Ruler Company 823 Windsor Street Hartford, Connecticut

Dake Engine Company Grand Haven, Michigan

David McKay Company Philadelphia, Pennsylvania

De Vry Corporation 1111 Armitage Avenue Chicago 14, Illinois

De Walt Products Corporation Lancaster, Pennsylvania

Ditto Incorporated Harrison at Oakley Boulevard Chicago 12, Illinois Douglas Fir Plywood Association Tacoma 2, Washington

Douglas Home Craftsman Stamford, Connecticut

D. T. Davis Company Lexington 34, Kentucky

D. Van Nostrand Company, Incorporated New York, New York

Eagle Pencil Company, Incorporated 14th Street and Avenue C New York, N.Y.

Eagle Picher Sales Company Cincinnati 1, Ohio

Easi-Bild Pattern Company Pleasantville, New York

Eberhard Faber Pencil Company 37 Greenpoint Avenue Brooklyn 22, New York

E. B. Films, Incorporated Chicago 6, Illinois

E. C. Atkins and Company 402 South Illinois Street Indianapolis 9, Indiana

E. C. Knudson 40 South Clinton Street Chicago 6, Illinois

Educational Materials, Incorporated 46 East 11th Street
New York 3, New York

Edwards and Company, Incorporated Norwalk, Connecticut

E. H. Sheldon and Company Muskegon, Michigan

E.I. Du Pont De Nemours and Co. Wilmington 98, Delaware

Ekstrom, Carlson and Company Rockford, Illinois

E. L. Stemmler Company Manorville, L.I., New York Enco Manufacturing Company 4522-24 W. Fullerton Avenue Chicago 39, Illinois

Encyclopaedia Britannica Films, Frank Paxton Lumber Company Incorporated First and Kansas Avenue 20 N. Wacker Drive Chicago 6, Illinois

Engineering Manufacturing Co. Sheboygan, Wisconsin

Ernest Bann Limited London, England

Etna Twist Drill Company Taunton, Massachusetts

Ettco Tool Company, Inc. 594 Johnson Avenue Brooklyn 6, New York

Eugene Dietzgen Company 2425 N. Sheffield Avenue Chicago 14, Illinois

Faraday Electric Corporation Adrian, Michigan

Fayette R. Plumb Inc. 4837 James Street Philadelphia 37, Pennsylvania

Federal Products Corporation 1144 Eddy Street Providence 1, R. I.

Office of Education Washington 25, D. C.

Fellowcrafters, Incorporated 13 Clarendon Street Boston 16, Massachusetts

Foley Manufacturing Co., Incorporated 30 Second Street N.E. Minneapolis 13, Minnesota

F. J. Drake and Company Chicago, Illinois

Foredom Flexible Shaft Tools Greenfield, Massachusetts 27 Park Place New York, N.Y.

Forest Products Laboratory Forest Service Madison, Wisconsin

Kansas City 3, Kansas

F. Weber Company 1220 Buttonwood Street Philadelphia 23, Pennsylvania

General Cement Manufacturing Co. 919 Taylor Avenue Rockford, Illinois

General Electric Company 1 Plastics Avenue Pittsfield, Massachusetts

General Electric Company 1 River Road Schenectady 5, New York

General Finishes Sales and Service Company 1548 W. Bruce Street Milwaukee, Wisconsin

General Pencil Company 67-73 Fleet Street Jersey City, New Jersey

George Scherr Company, Incorporated 200 Lafayette Street New York 12, New York

Federal Security Agency
Office of Education

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25-30 North Second Street Minneapolis 11, Minnesota

> Government Printing Office Washington 25, D. C.

> > Grand Specialties Company 3101-35 W. Grand Avenue Chicago 22, Illinois

Gray-Mills Company 1948 Ridge Avenue Evanston, Illinois

Greenfield Tap and Die Corporation

Greenlee Brothers and Company Rockford, Illinois

Handy and Harman 82 Fulton Street New York 7, N. Y.

H. B. Rouse and Company 2214-16 North Wayne Avenue Chicago 14, Illinois

Heller Brothers Company Newark, New Jersey

Henry Disston and Sons, Inc. Philadelphia 35, Pennsylvania

Henry L. Hanson Company 25 Union Street Worcester 8, Massachusetts

Henry Paulson and Company 37 S. Wabash Avenue Chicago 3, Illinois

Herbert Hall Foundation 99 Lincoln Park Newark 2, New Jersey

Higgins Ink Company, Inc. 271 Ninth Street Brooklyn 15, New York

Hobart Brothers Hobart Square Troy, Ohio

Huther Brothers Saw Manufacturing Company, Inc: 1290 University Avenue Rochester 7, New York

Housing and House Finance Agency Washington, D. C.

Illuminating Engineering Society
51 Madison Avenue
New York 10, New York

Indianhead Archery and Manufacturing Company Box 303 Lima, Ohio

Interlake Chemical Corp. Union Commerce Building Cleveland 14, Ohio International Acetylene Association 30 East 42nd Street New York 17, New York

Iowa State College of Agriculture and Mechanical Arts Agriculture Extension Service Ames, Iowa

J. B. Lippincott Philadelphia, Pennsylvania

J. D. Wallace and Company 134 S. California Avenue Chicago 12, Illinois

J. G. Blount Company Everett 49, Massachusetts

J. H. Williams and Company Buffalo 7, New York

J. Lee Hackett Machinery Company 1961 East Milwaukee Avenue Detroit 11, Michigan

J. L. Lucas and Son, Incorporated Bridgeport 5, Connecticut

John R. Wittsche Art Inlayers 41 Westfield Avenue Hayward, California

Johnson Gas Appliance Company Cedar Rapids, Iowa

John T. Lewis and Brothers Co. Widener Building Chestnut and Juniper Streets Philadelphia 7, Pennsylvania

Jordanoff Corporation 595 Madison Avenue New York 22, New York

Joseph Weidenhoff, Incorporated 4340-58 Roosevelt Road Chicago 24, Illinois

Kastar, Incorporated 200-208 Lincoln Avenue New York 54, New York

K-D Manufacturing Company Lancaster, Pennsylvania

Kearney and Trecker Corporation Milwaukee 14, Wisconsin

Kerkling and Company Box 311 Burbank, California

Keystone Reamer and Tool Co. Millersburg, Pennsylvania

Keystone View Company Meadville, Pennsylvania

Knowledge Builders 625 Madison Avenue New York, New York

K-O-Lee Company Aberdeen, South Dakota

Lapidary Equipment Company McCrosky Tool Corporation Incorporated 1545 West 49th Street Seattle 7, Washington

L. C. Whiffen Company, Incorporated 622 W. Wisconsin Avenue Milwaukee 3, Wisconsin

Leeds and Northrup Company 4901 Stenton Avenue Philadelphia 44, Pennsylvania

Leonard Hill Limited London, England

Lewis Machine Tool Company P.O. Box 116 Station "A" Los Angeles 31, California

Library Films Incorporated 25 West 45th Street New York 19, New York

Link Aviation Devices, Inc. Binghampton, New York

Machinery Sales Company 1274 Folsom Street San Francisco 3, California

Macklin Company Jackson, Michigan Magnolia Metal Company 18 West Jersey Street Elizabeth 4, New Jersey

Mall Tool Company 7740 South Chicago Avenue Chicago 19, Illinois

Manual Arts Press Peoria, Illinois

Marquette Manufacturing Company, Incorporated 307 E. Hennepin Avenue Minneapolis 14, Minnesota

Maxim Chemical Company, Incorporated 44 Cliff Street New York 7, New York

Meadville, Pennsylvania

Metal Crafts Supply Company 10 Thomas Street Providence, Rhode Island

Metal Goods Corporation 5239 Brown Avenue St. Louis 15, Missouri

Mid-West Abrasive Company 510 South Washington Street Owosso, Michigan

Miehle Printing Press and Manufacturing Company 14th St. and S. Damen Avenue Chicago 8, Illinois

Millers Falls Company Greenfield, Massachusetts

Minnesota Mining and Manufacturing Company 900 Fauquier Avenue St. Paul, Minnesota

M.K.M. Hill 529 Perine Street Elmira, New York

Monite Waterproof Glue Company Minneapolis, Minnesota

Morse Twist Drill and Machine Company New Bedford, Massachusetts

Motion Picture Section Office of Public Information Executive Office of the Secretary Navy Department Washington 25, D. C.

Motor Book Department 250 W. 55th Street New York 19, New York

National Adhesives 270 Madison Avenue New York 16, N.Y.

National Association of Manufacturers 14 West 49th Street New York 20, New York

National Lead Company 11 Broadway New York, New York

National Lime Association Washington, D. C.

National Paint, Varnish and Lacquer Association, Inc. 1500 Phode Island Avenue, N.W. Washington 5, D. C.

National Machine Fool Builders Association Cleveland, Ohio

National Safety Council 20 North Wacker Drive Chicago 6, Illinois

National Soap Sculpture Committee 160 Fifth Avenue New York 10, New York

National Twist Drill and Tool Co. Princeton Tool Company Rochester, Michigan

New York State College of Agriculture, Cornell Extension Ithaca, New York

Niagara Machine and Tool Works 637-697 Northland Avenue Buffalo 11, New York

Nicholson File Company Providence 1, Rhode Island

North Brothers Manufacturing Co. Lehigh Avenue and American St. Philadelphia 33, Pennsylvania

Norton Company Worcester 6, Massachusetts

Ohmite Manufacturing Company 4835 Flournoy Street Chicago 44, Illinois

Oklahoma Agriculture and Mechanical College Stillwater, Oklahoma

Oliver Machine Company Grand Rapids, Michigan

Parks Woodworking Machine Company Cincinnati, Ohio

Patterson Brothers 15 Park Row New York 7, New York

Plaskon Division Toledo, Ohio

Plax Corporation Hartford, Connecticut

Plomb Tool Company Box 3519 Terminal Annex Los Angeles 54, California

Polks Model Craft Hobbies 314 5th Avenue New York 1, New York

Pratt and Whitney West Hartford 1, Connecticut

146 John Street New York 7, New York

Racine Tool and Machine Company Racine, Wisconsin

Reinhold Publishing Corporation Snap-On Tools Corporation New York, New York

Related Arts Service 511 5th Avenue New York 17, New York

Revere Copper and Brass Inc. Rome, New York and, 5851 West Jefferson Avenue Detroit 9, Michigan

R. Hoe and Company, Inc. 910 E. 138th Street New York 54, New York

Rivett Lathe and Grinder Inc. Brighton 35, Massachusetts

Rogers Isinglas and Glue Co. Gloucester, Massachusetts

Rohm and Hass Company Washington Square Philadelphia 5, Pennsylvania

Russell Jennings Manufacturing Co. Syntron Company Chester, Connecticut

Sales Service Machine Tool Co., Incorporated 2363 University Avenue St. Paul 4, Minnesota

Sargent and Company New Haven, Connecticut

Schweizer Aircraft Corporation County Airport Elmire, New York

Scovill Manufacturing Co. P.O. Box 1820 Waterbury 91, Conn.

Sheldon Machine Co., Inc. 4258 N. Knox Avenue Chicago 41, Illinois

Simonds Saw and Steel Co. 470 Main Street Fitchburg, Massachusetts

SKF Industries, Inc. Front Street & Erie Ave. Philadelphia 34, Pa.

8070 28th Avenue Kenosha, Wisconsin

Society for Visual Lincotion, Incorporated 100 East Ohio Street Chicago 11, Illinoia

South Bend Lathe Workn South Bend 22, Indiana

Speedway Manufacturing Company 1834 South 52nd Avenue Chicago 50, Illinoia

Stewart Research Laboratories Washington, D.C.

Sterling Tool Products Company 363 East Ohio Street Chicago 11, Illinoia

Sylvania Electric Products, Inc. 500 Fifth Avenue New York 18, N.Y.

Homer City, Pennsylvanta

Stanley Tool Works New Britain, Connecticut

Sta-Warm Electric Company Ravenna, Ohio

Sterling Tool Products Company 363 East Ohio Street Chicago 11, Chio

Sterling Wheelbarrow Company Milwaukee 14, Wisconsin

Sunbeam Corporation 4433 W. Ogden Avenue Chicago 23, Illinola

T. A. Foley Lumber Company, Inc. Paris, Illinois

The American Crayon Company Sandusky, Chio

The American Forestry Association 919 17th Street H.W. Washington 6, D.C.

The A. P. Parts Corporation A. P. Building Toledo, Ohio

The Arts Cooperative Service, Incorporated 340 Amsterdam Avenue New York 24, N.Y.

The Black and Decker Manufacturing Company Towson, Maryland

The Borden Company 350 Madison Avenue New York 17, N.Y.

The Bridgeport Hardware Manufacturing Corporation
Bridgeport 5, Connecticut

The Bristol Brass Corporation Bristol, Connecticut

The Bruce Publishing Company 540 North Milwaukee Street Milwaukee 1, Wisconsin

The Capewell Manufacturing Co. Hartford 2, Connecticut

The Carborundum Company Niagara Falls, New York

The Carpenter Steel Company Reading, Pennsylvania

The Castolite Company Kenilworth, Illinois

The C. F. Pease Company 2601 West Irving Park Road Chicago 18, Illinois

The Challange Machinery Co. Grand Haven, Michigan

The Cincinnati Shaper Co. Cincinnati, Ohio

The Cincinnati Tool Co. Norwood, Cincinnati 12, Chio The Cleveland Steel Tool Co. 660 East 82nd Street Cleveland 8, Chio

The Cleveland Twist Drill Co. 1242 E. 49th Street Cleveland 14, Ohio

The Columbian Vise and Manufacturing Company 902l Bessemer Avenue Cleveland 4, Ohio

The Crescent Machine Company Leetonia, Chio

The Cushman Chuck Company Hartford 2, Connecticut

The Dallett Company Mascher at Lippincott Street Philadelphia 33, Pennsylvania

The Delta Manufacturing Division 600 East Vienna Avenue Milwaukee 1, Wisconsin

The De Vilbiss Company Toledo 1, Ohio

The DoALL Company 1301 Washington Avenue So. Minneapolis 4, Minnesota and, 254 North Laurel Avenue Des Plaines, Illinois

The Dumore Company Fourteenth and Racine Streets Racine, Wisconsin

The Electric Storage Battery Co. Allegheny Avenue and 19th St. Philadelphia 32, Pennsylvania

The Esterbrook Pen Company Camden, New Jersey

The Franklin Glue Company Columbus, Chio

The Glidden Company Cleveland 2, Chio

The Handcrafters Waupun, Wisconsin

The Hartford Clamp Company, Inc. E. Hartford, Connecticut

The Home Craftsman 115 Worth Street New York 13, New York

The Hydraulic Press Manufacturing Company Mount Gilead, Chio

The Irwin Auger Bit Company Wilmington, Chio

The Jam Handy Organization 2821 East Grand Boulevard Detroit 11, Michigan

The Jacobs Manufacturing Co. Hartford 2, Connecticut

The Kindt-Collins Company Cleveland 11,0hio

The Lincoln Electric Co. 12818 Coit Road Cleveland 1, Ohio

The Linde Air Products Co. 30 East 42nd Street New York 17, N. Y.

The Lodge and Shipley Machine Woonsocket, Rhode Island Tool Company Cincinnati 25, Ohio

The L.S. Starrett Company Athol, Massachusetts

The Lufkin Rule Company Saginaw, Michigan

The Nolvex File Company 10329 Detroit Avenue Cleveland, Ohio

The Ohio Leather Company 1052 North State Street Girard, Chio

The Chio Machine Tool Co. Kenton, Ohio

The O-P Craft Co., Incorporated Sandusky, Ohio

The Parks Woodworking Machine Co. Cincinnati 23, Ohio

The Peck, Stow and Wilcox Co. Southington, Connecticut

The Porter-Cable Machine Company Syracuse 8, New York

The Princeton Film Center Princeton, New Jersey

The R. K. LeBlond Machine Tool Co. Cincinnati 8, Chio

The Sebastian Lathe Company Cincinnati 1, Ohio

The Skinner Chuck Company New Britain, Connecticut

The Smith and Mills Company 2889 Spring Grove Avenue Cincinnati 25, Ohio

The Standard Electric Time Company Springfield 2, Massachusetts

The Stanley Tool Works New Britain, Connecticut

The Taft-Peirce Manufacturing Co.

The Tannewitz Works 301-325 Front Ave., N. W. Grand Rapids 4, Michigan

The Thompson Grinder Company Springfield, Ohio

The Vichek Tool Company Cleveland, Ohio

The Wade Tool Company 49-50 River Street

The Walton Company 94 Allyn Street Hartford 3, Connecticut

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The William Schollhorn Company New Haven 9, Connecticut

The Wiremold Company Hartford 10, Connecticut

Trifam Manufacturing Co. 1211 Madison Street Maywood, Illinois

Trindl Products Limited 17 East 23rd Street Chicago 16, Illinois

Tyler Manufacturing Co. 938 Pico Boulevard Santa Monica, California

Underwriters' Laboratories, Inc. Chicago 11, Illinois

United Air Lines United Air Lines Building Chicago 38, Illinois

U. S. Bureau of Mines Superintendent of Documents Washington 25, D. C.

U. S. Department of Agriculture Forest Service Forest Products Laboratory Madison 5, Wisconsin Washington 25, D. C.

U. S. Government Printing Office Superintendent of Documents Washington 25, D. C.

U. S. Navy Department Superintendent of Documents Washington 25, D. C.

U. S. Office of Education Superintendent of Documents Washington 25, D. C.

United States Plywood Corporation San Francisco 2, California Weldwood Building 55 West 44th Street New York 18, New York

United World Films, Incorporated New York 22, New York

Universal Handicrafts Service, Inc. 1267 Sixth Avenue New York, N.Y.

Universal Scientific Company, Inc. 1102 Shelby Street Vincennes, Indiana

V and E Manufacturing Company Post Office Box 950 Pasadena 20, California

Victor Saw Works, Incorporated Middletown, New York

Vocational Industries Corporation 2400 South Cottage Salem, Oregon

Vreeland Manufacturing Company 2020 S.W. Jefferson Street Portland 1, Oregon

Walker-Turner Company, Incorporated Plainfield, New Jersey

Warner and Swasey Company 5701 Carnegie Avenue Cleveland 3, Ohio

Wells Tool Company 106 Hope Street Greenfield, Massachusetts

Western Pine Association Yeon Building Portland 4, Oregon

Westinghouse Electric Corporation 306 Fourth Avenue P.O. Box 1017 Pittsburgh 30, Pennsylvania

Weston Electrical Instrument Corp. Newark 5, New Jersey

Wildberg Brothers Smelting and Refining Company 742 Market Street

William Dixon Incorporated Newark, New Jersey

Yates-American Machine Company 32-34-36 E. Kinney Street Newark 1, New Jersey

York Machinery & Supply Company York, Pennsylvania