

## **We Are—**

ANSCO'S Largest Central West Wholesale Distributor as well as the Distributing Selling Agents for many other nationally known manufacturers of Photographic Materials. We have a complete line of

Appliances  
Backgrounds  
Cameras  
Chemicals  
Enlargers  
Equipment  
Frames

Lenses  
Lights  
Mounts  
Papers  
Plates  
Portrait Film  
Sundries

Amateur Film  
and Cameras

NEW ITEMS are being added to our line constantly. Let us know if your requirements are not published in this catalogue.



*We Ship Today*

**NORMAN-WILLETS**

Photo Supply, Inc.

318 West Washington Street

CHICAGO, ILL.

*Importers - Distributors - Jobbers*

# **Photographic**

**Equipment  
Apparatus  
and Supplies**

for

**Studio - Engraver - Commercial  
Finisher - Industrial Plants**

**CATALOGUE No. 18**



Published by

**NORMAN - WILLETS**

**PHOTO SUPPLY, Inc.**

318 West Washington Street, Chicago, Ill.

MANUFACTURERS - IMPORTERS - JOBBERS



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## Our Customers

Are cordially invited to visit our equipment salesroom for inspection and demonstration of all equipment described in this catalogue—as well as paper, plates, films, etc.

Out-of-the-city customers are also invited to make our office their headquarters when in the city.

## Goods Not Listed

If what you want is not described in this catalogue, write or call us, as we are adding to our line continually.

## NORMAN-WILLETS

Photo Supply, Inc.

318 W. Washington Street

CHICAGO, ILL.



## Terms of Payment

Compliance with the following will save unnecessary correspondence and assure prompt attention to orders.

**C. O. D. or C. W. O.** To customers who have not established credit accommodations (open accounts) with us, and have no credit rating in Dun's or Bradstreet's, our terms are cash with order (C. W. O.) or cash on delivery (C. O. D.). If goods are ordered C. O. D. by express, freight, or parcel post, we require a deposit of 25% of their value.

**OPEN ACCOUNT** privileges, which must be paid promptly before the 15th of the month following date of purchase, will be accorded to all responsible customers, who are satisfactorily rated in Dun's or Bradstreet's, or who furnish us with the names and addresses of three or more business firms recently purchased from on open account, whose replies to our inquiries are satisfactory.

**MONTHLY PAYMENT PLAN.** On the majority of equipment and appliances published in this catalogue, we may allow a **MONTHLY PAYMENT PLAN**, so that our customers may possess needed apparatus and **PAY FOR IT AS USED.**

Invariably our arrangement will be as follows:—One-quarter ( $\frac{1}{4}$ ) cash with order, and the balance to be paid in five (5) equal monthly payments. If, after payments are started, it is desired to pay the balance in full, a discount will be allowed based on the unpaid portion, as though it had been purchased for cash.

**REMITTANCES** should be made by postal money orders, express money orders, cashiers' checks, or personal checks (certified), to which exchange must be added. If personal checks not certified are sent, shipments on first orders may be delayed pending their collection by our bank.

**TRADE DISCOUNTS.** The prices listed in this catalogue are subject to various discounts as signified by the key below (unless specified "net") only when payments are made promptly in accordance with our terms.

A—Net List	F—20% discount
B—5% discount	G—25% discount
C—10% discount	H—30% discount
D—12½% discount	I—33⅓% discount
E—15% discount	

**CASH DISCOUNTS.** A 2% **CASH DISCOUNT** will be allowed on all purchases made C. O. D., C. W. O., or on **OPEN ACCOUNT**, for which a remittance (in funds payable at par in Chicago) is received at our office **ON or BEFORE THE 10th** of the month following date of invoice. Thereafter, all invoices are **NET**, and are **DUE** and payable on the 15th. Should a remittance be delayed over an unreasonable period beyond due date, we reserve the right to add legal interest, or add the trade discount to the original invoice.

F. O. B. points are factory, Chicago, or your city if stated.

**"ORDER FROM NORMAN-WILLETS" CHICAGO**

## Anso New York Studio Outfit No. 5

8 x 10 Double Extension Bellows

**For Better Business, A Better Studio Equipment**

**Efficient**

**Convenient**

**Substantial**

**An Asset to the  
Best Studio**

**Guaranteed Workman-  
ship**

**Reasonably Priced**

The New York Studio Outfit No. 5 is unquestionably the outfit for the photographer who wishes both to get the greatest pleasure from his work and to perform it more efficiently and conveniently and with greater profit. At the same time, it is offered at a price so reasonable that no photographer can afford to choose a different equipment in its stead.

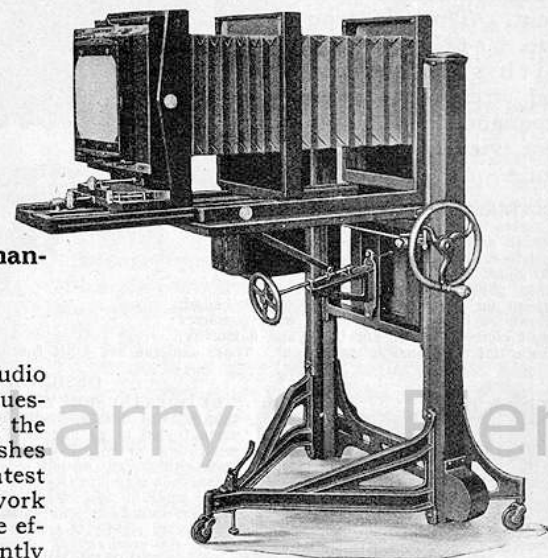
The New York Studio is a 40-inch double extension long draw bellows and is a complete outfit, comprising the Anso Upright Studio Stand, the New York Portrait Camera, with sliding ground-glass attachment and two reversing backs, interchangeable, one for 8x10 negatives, the other for 5x7, and essential equipment. The latter consists of one 5x8 diaphragm to permit the making of two exposures on one 8x10 plate or cut film, one 3½x5 diaphragm to permit the making of two exposures on one 5x7 plate or cut film, one 8x10 Anso double plate or cut-film holder, and one 5x7 Anso double plate or cut-film holder, the choice of plate holder or cut-film holder being at the purchaser's option.

**Price—Outfit Complete . . . . . \$172.50**

**Parts purchased individually:**

Camera . . . . .	\$62.50
Attachment . . . . .	33.00
Stand . . . . .	70.00
5 x 7 Adapter . . . . .	13.00
Rack . . . . .	7.00

Monthly Payment Plan or 10% Cash Discount





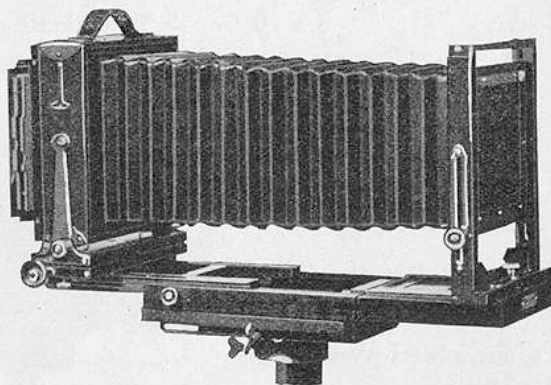
## Anso Universal Cameras

8x10 (Fitted for 7x11 Adapter), 5x7, 4x5 (Fitted for 3 1/4 x 4 1/4 Back)

These are the new Anso view cameras which have received so much favorable comment. They incorporate better features with greater rigidity and strength. Owners pronounce them the best view cameras made.

### MATERIALS AND FINISH

Camera built of cherry for strength and durability, and finished in a beautiful Adam brown, semi-gloss. All metal parts of brass, polished and lacquered. Corners on reversible back are metal bound. Bellows of black leather, lined with gossamer rubber cloth to assure durability and flexibility. Substantial construction throughout. These cameras are built for service.



### DESIGN AND FEATURES

**REAR EXTENSION TYPE**, like Anso Studio camera: extension bed is contained within main bed. Camera is complete when folded to go into case; no section to remove and carry separately. **FOCUSING** by rack and pinion with large knobs from either right or left side. **RUNNERS** are made of heavy brass (not stampings), with machine-cut grooves that slide in metal track on bed—metal in metal, not metal in wood. Runners are unusually long with a new clamping device for clamping camera rigidly to track when desired focus is obtained, assuring the accuracy of adjustment so important for high-class work. **AMPLE FRONT ACTION** vertically and horizontally; rising and falling front action is locked or unlocked on a cam (a new feature) by pulling pinion rod either in or out. **AMPLE SWING** at back vertically and horizontally; can be clamped very rigid in any position. Pendulum level.

**Sliding Partition**.—Camera comes equipped with removable sliding partition for taking two half-size pictures on a full-size plate or film.

**Focal Capacity**.—Maximum extension, 4x5, 17 inches; 5x7, 20 1/2 inches; minimum, 4 inches. Maximum extension, 8x10, 26 1/2 inches; minimum, 4 inches.

**Lens Board**.—4x5 lens board, 4 inches square; 5x7 lens board, 5 inches square; 8x10 lens board, 7 1/2 inches square.

**Holders**.—The holders are standard, interchangeable with those supplied for Anso Studio cameras and cameras of view type in common use. Film-holder supplied unless plate-holder is specified.

**Adapter**.—7x11 adapter for 8x10 camera is supplied extra, including case for adapter. If desired without case, so specify.

**Camera Case**.—Extra-strong, covered with heavy black leatherette, corners reinforced with metal. Case holds camera and three plate or film holders.

### PRICES

Cat. No.	
C-10A	4x5, including one holder (film holder supplied unless kind is specified), extra lens board, and carrying case.....\$62.50
C-10B	5x7, (same extras as above).....65.00
C-10C	8x10, (same extras as above).....75.00
C-10CA	7x11, adapter for 8x10, without case.....18.00
C-10CC	7x11, adapter for 8x10, with case.....24.00
C-10AA	3 1/4 x 4 1/4, back for 4x5, including holder.....9.00
C-10AB	4x5 lens boards extra.....1.00
C-10BB	5x7 lens boards extra.....1.00
C-10CB	8x10 lens boards extra.....1.25

Monthly Payment Plan or 15% Cash Discount on Camera.  
20% Cash Discount on Sundries.

## Korona Wide Angle Camera

### A New Camera for the Commercial Photographer

The photographer has to work very frequently in close quarters and take many subjects which require the use of wide angle lenses.

The ordinary long focus view camera is unsuitable for very short focus lenses and does not have sufficient adjustment of the rising front.

The Korona Wide Angle Camera has been designed especially for this purpose and it is the first camera of its kind. The Korona Wide Angle Camera is made in 8x10 size and it will accommodate any type of wide angle lens.

By an ingenious design the back frame will slide forward to obtain a minimum bellows extension of 2 1/2 in. and the maximum is 7 1/4 in.

The bellows is slightly tapered for compactness and the rising and falling front operate independently with a range of adjustment of 4 3/4 in.

The sliding lens board is provided with a 4 1/2 x 4 1/2 detachable lens board.

The vertical and horizontal swings allow all the adjustment it is practical to use.

There is no folding or detachable bed section. This camera is made of cherry with walnut finish and all metal parts are of brass, nickel plated.

It has the Korona back spring system for the ground glass frame which permits easy insertion and removal of the holders.

The canvas carrying case takes the camera and six plate holders or seven film holders.

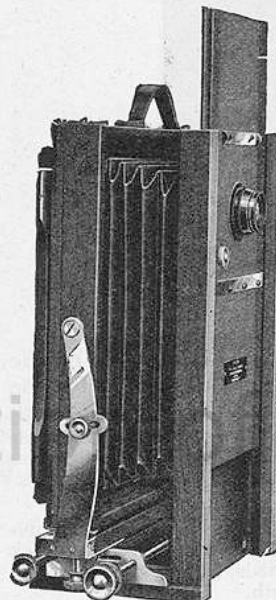
Shortest bellows extension.....	2 1/2 inches
Longest " ".....	7 1/4 "
Weight of camera.....	7 lbs.
" " case.....	7 lbs.

### PRICES

8x10 Korona Wide Angle Camera.....	\$58.00
Long Canvas Carrying Case.....	7.00
8x10 Radar Extreme Wide Angle Anastigmat Lens F:16 in Betax Shutter focal length 6 1/4 in., angle 90 degrees.....	48.00
8x10 Special Radar Extreme Wide Angle Anastigmat Lens F:16 in Barrel, focal length 4 1/2 in., angle 110 degrees.....	60.00
8x10 Plate Holders.....	2.50
8x10 Film Holders.....	2.50

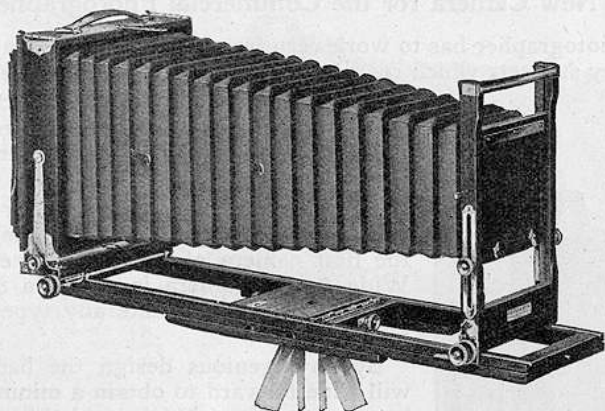
We recommend the new Radar W. A. Lens for this camera.

Monthly Payment Plan or 15% Cash Discount on Camera  
and 20% Cash Discount on Sundries





## Korona View Camera



In bellows length, adjustment of the rising front, latitude of the double swing back and size of the lens board, these cameras offer the maximum capacity with a well balanced proportion of the woodwork and metal parts, which secures strength and rigidity without unnecessary weight.

### SPECIFICATIONS

Walnut finish, metal parts nickel plated, reversible back, spring acting pivoted ground glass frame, double swings, rising and falling front with rack and pinion, sliding panel in back, detachable lens boards, bed brace, automatic back stop, leatherette bellows lined with rubber cloth.

	4x5	5x7	6½x8½	8x10	7x11	11x14
Lens boards.....	4x4	4½x4½	4½x4½	6x6	6x6	6¾x6¾
Bellows length.....	20 in.	24 in.	28 in.	32 in.	34 in.	42 in.
Weight .....	4½ lbs.	5½ lbs.	7 lbs.	9 lbs.	10½ lbs.	15 lbs.

### PRICES

We will assume that carrying case and one plate holder are wanted with each Camera unless order specifies otherwise.

	4x5	5x7	6½x8½	8x10	7x11	11x14
Korona View Cameras only.....	\$34.00	\$37.50	\$41.00	\$44.00	\$49.50	\$68.00
Canvas Carrying Case.....	4.00	4.50	6.50	7.00	8.00	8.00
Extra for Leather Bellows.....	2.50	3.00	4.00	5.00	5.00	7.00
Plate or Film Holders.....	1.50	2.00	2.25	2.50	2.50	6.00
Lens Boards .....	.75	.75	.75	.90	.90	1.00

When ordering lens boards specify the dimensions as former models take lens boards of different sizes.

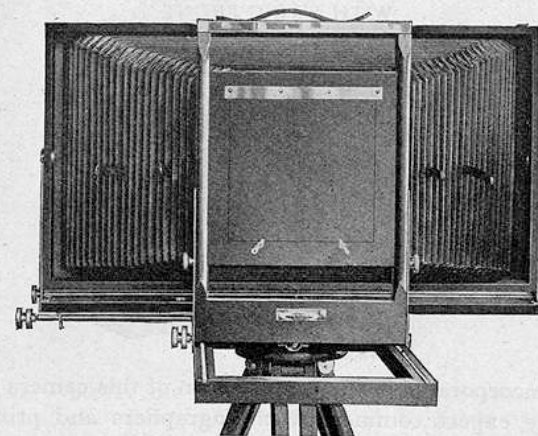
The 4x5 Korona View will be supplied with the choice of a reversible back for 4x5 or 3¼x5½ Holders.

4x5—3¼x5½ Reducing Back.....	\$7.50
3¼x5½ Reversible Back for 4x5 Korona View.....	7.50

The regular long case will take the camera and six plate holders except in 11x14 size, with which we supply a short case for camera and three plate holders.

Monthly Payment Plan or 15% Cash Discount on Camera and 20% Cash Discount on Sundries

## Korona Panoramic View Camera



### SPECIFICATIONS

	5x12	7x17	8x20
Lens Board.....	3½x5½	5¼x5¼	6x6
Bellows length.....	23½ inches	28¼ inches	32½ inches
Camera folded .....	5¼x16x10¾	5½x21¼x13¼	6x24½x14¾
Weight of Camera.....	8 lbs.	10 lbs.	13½ lbs.

### PRICES

We will assume that carrying case and one plate holder are wanted with each Camera unless order specifies otherwise.

	5x12	7x17	8x20
Camera only without case or holder.....	\$57.50	\$71.00	\$79.50
Canvas carrying case.....	8.50	8.50	10.00
Extra charge for leatherette bellows, with leather corners .....	3.00	4.00	5.00
Plate Holders .....	6.00	7.50	9.00
Film Holders .....	6.00	7.50	9.00
Printing Frames .....	4.00	4.50	6.00
Lens Boards .....	.75	.75	.90
Leatherette covered carrying case.....	10.00	10.00	12.00
5x12 Reducing Back with 5x7 Reversible Back.....			12.00
7x17 Reducing Back with 6½x8½ Reversible Back..			15.00
8x20 Reducing Back with 8x10 Reversible Back.....			18.00
Reversing Attachment for tripod for 5x12 camera...			7.50
Reversing Attachment for tripod for 7x17 camera...			8.50
Reversing Attachment for tripod for 8x20 camera...			9.50

### Extra Equipment

Their all round utility is increased by the addition of a Reducing Back. These are reversible. We also supply Tripod Reversing Attachments to use these cameras for taking vertical pictures.

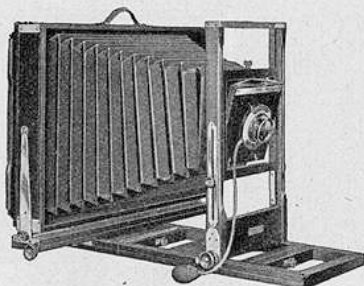
You are losing business every day you are without one of these Panoramic Outfits.

Monthly Payment Plan or 15% Cash Discount on Camera and 20% Cash Discount on Sundries



## Korona Banquet Camera

WITH SWING FRONT



We have incorporated in the construction of this camera many ideas suggested by expert commercial photographers and primarily it is intended for taking flashlights of banquets and large groups but there is no reason why it cannot be used for many other purposes as it has all the usual adjustments of a view camera. It is a front focusing camera without a rear bed extension but may also be focused from the rear for convenience in final focusing. The front has a vertical swinging lens board and there is a double swing in connection with the rear frame. The rising and falling front operate with rack and pinion and allow ample adjustment. This camera is made of cherry throughout with walnut finish and has all metal parts nickel plated, —a very handsome combination. The holders have double flexible valves. Bellows length  $22\frac{3}{4}$  inches. Lens Board  $5\frac{1}{2} \times 5\frac{1}{2}$  inches. Weight 18 lbs. Dimensions closed,  $7\frac{1}{4} \times 18\frac{1}{2} \times 23\frac{1}{4}$ .

### PRICES

We will assume that carrying case and one plate holder are wanted unless otherwise specified.

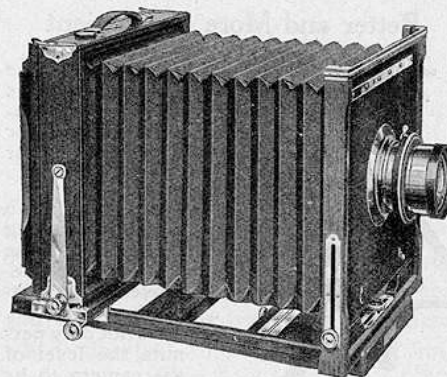
12x20 Korona Banquet Camera without case or holder.....	\$76.00
Canvas Carrying Case.....	9.00
Extra charge for leatherette bellows with leather corners.....	3.00
12x20 Plate Holder.....	10.00
12x20 Film Holder.....	10.00
12x20 Printing Frame.....	6.00
Lens Boards $5\frac{1}{2} \times 5\frac{1}{2}$ .....	.75

The following lenses are recommended for this camera:

- Goerz Dagor F 6.8.
- Steinheil Orthostigmat F 6.8.
- Turner-Reich F 7.5, Ser. II, No. 6.

Monthly Payment Plan or 10% Cash Discount on Camera  
and 20% Cash Discount on Sundries

## Korona Home Portrait Camera



It fulfills very nicely the need of a light compact portable camera for home portraiture or for use in small studios, either private or professional. Including all the regular adjustments and Korona features it has a lens board of ample size to accommodate lenses of the largest aperture.

It is made entirely of selected cherry, finished in walnut, and all the metal parts are made of brass, nickel plated. It has a rising and falling front operated by rack and pinion and a lateral front adjustment, double swing back with the vertical swing operated by rack and pinion. The back is reversible and contains two sliding panels for making two or four exposures on a plate. The ground glass frame is controlled by our center pivoted spring actuated device, an exclusive feature, making it extremely easy to insert and remove the plate holders.

The short canvas case, lined with canton flannel, takes the camera and six holders in  $5 \times 7$  size and three holders in  $6\frac{1}{2} \times 8\frac{1}{2}$  and  $8 \times 10$  size.

Size	Bellows Length	Lens Board	Weight
5x7	$13\frac{1}{2}$ inches	6x6	5 lbs.
$6\frac{1}{2} \times 8\frac{1}{2}$	$16\frac{1}{2}$ inches	7x7	6 lbs.
8x10	$18\frac{1}{2}$ inches	9x9	8 lbs.

### PRICES

We will assume that carrying case and one plate holder are wanted with each Camera unless order specifies otherwise.

	5x7	$6\frac{1}{2} \times 8\frac{1}{2}$	8x10
Korona Home Portrait Camera, only.....	\$33.00	\$35.00	\$38.50
Canvas Carrying Case.....	4.50	5.00	5.50
Plate or Film Holder.....	2.00	2.25	2.50
	\$39.50	\$42.25	\$46.50
Leather Bellows, extra.....	1.50	2.00	3.00
Lens Boards, specify size.....	.90	1.00	1.25

See description of Ansco Universal Home Portrait Stand and the Improved Korona Folding Studio stand on next page.

This camera also fits the long carrying case made for the Korona View.  
Monthly Payment Plan or 15% Cash Discount on Camera  
and 20% Cash Discount on Sundries



## AnSCO Universal Stand

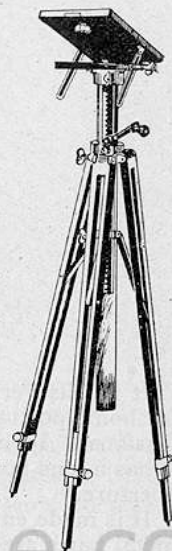
Better and More Convenient

Revolving top may be locked at any height



Flexible Security is the term that best describes this stand. Made to support cameras of professional size for both indoor and outdoor work.

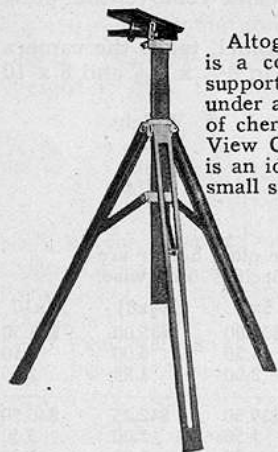
A feature found in no other stand is the raising and lowering device at the center post, a new mechanical movement invented by AnSCO. This not only permits the level of the camera to be changed as readily as the focus, but automatically holds it at the selected height without the necessity of a set-screw adjustment. The convenience of this movement is especially appreciated by those who have used other stands.



Weight 7¾ lbs.

Cat. No. T-21.....\$25.00  
Monthly Payment Plan or  
10% Cash Discount

## Korona Folding Studio Stand

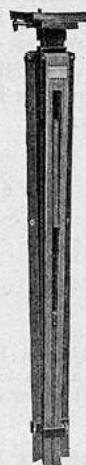


Altogether the Korona Folding Studio Stand is a compact, portable and very convenient support for a camera or a projection lantern under all conditions, and it is beautifully made of cherry finished in walnut to match Korona View Cameras in all the different models. It is an ideal stand for Home Portraiture or the small studio and safe and rigid. The three legs open up simultaneously and the stand may be moved about on smooth surfaces with perfect safety to the camera.

The center post is adjustable for height from 31 to 45 inches, and the top is detachable and adjustable for inclination.

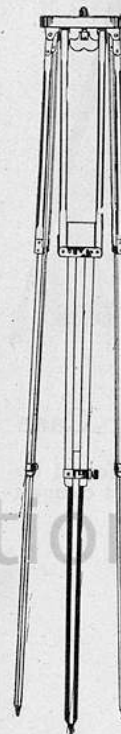
Maximum height, 60 inches.

Weight: No. 1, 4 lbs. No. 2, 6 lbs.



Cat. No.	Prices
T-16 No. 1 for 5x7 and smaller cameras.....	\$12.00
T-17 No. 2 for 6½x8½ and larger cameras.....	14 00
T-18 Special top for Projection lantern 7½x24 which may be used with any stand .....	3.00
Monthly Payment Plan or 15% Cash Discount	

## Korona Tripods



Combination



A strong, rigid tripod is an indispensable adjunct of a camera to give it a firm support. The salient feature of our tripods is the V-shaped grooves which strengthen and stiffen the legs and makes a joint free from looseness when clamped together. Recent improvements have greatly added to the rigidity of our tripods and they will stand hard and continuous service.

The T-10-0 Tripod has a metal head brass plated and the other sizes have laminated wood heads.

Order the T-14-4 Sliding Tripod with detachable head, 8 inches diameter, for your big cameras and it will last you a life time. This tripod is light and portable but very strong and rigid.

The T-15-5 Combination is the largest Tripod suitable for banquet work and very large cameras.



Sliding

### SPECIFICATIONS—PRICES

Cat. No.	Length folded	Weight	Prices
T-10-0 Sliding Tripod for small cameras.....	29 inch	1¼ lbs.	\$1.50
T-11-1 Combination Tripod for 4x5 cameras.....	23 inch	2 lbs.	5.50
T-12-2 Combination Tripod for 5x7 cameras.....	23 inch	2½ lbs.	6.50
T-13-3 Sliding Tripod for 8x10 cameras.....	31 inch	3 lbs.	7.00
T-14-4 Sliding Tripod for large cameras.....	31 inch	6 lbs.	8.00
T-15-5 Combination Tripod for very large cameras (length extended, 90 inches).....	38 inch	12 lbs.	20.00



## Ansco Utility Tripod

### A Real Tripod for Real Stability in Outdoor Work

When Ansco made the Universal View Cameras and the Universal Tripod Stand, photographers said, "Now finish the job by supplying a real outdoor tripod to match these and to stand the racket." So here it is—the Ansco Utility Tripod, plenty big enough for a full-size camera, with the strength of Gibraltar in its legs and a top that does not wiggle.

Adjustable tripod leg braces, heavy brass fittings and of strong wood, top is detachable.

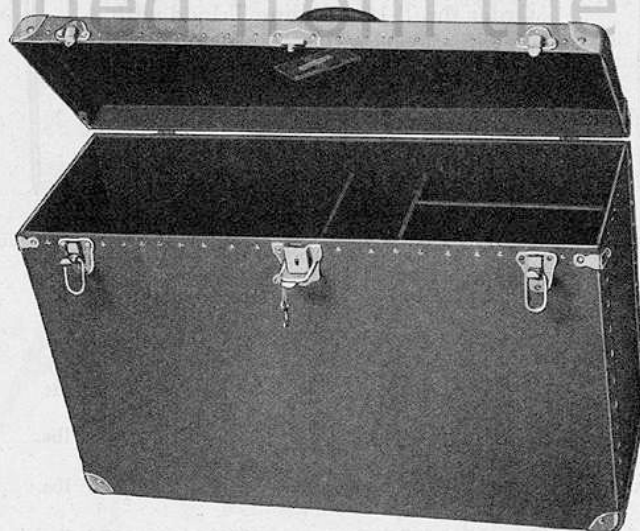
This tripod is suitable for 5x7, 8x10 and larger cameras.

Cat. No. T-20 Price.....\$17.50 Discount (C)



## Standard "NORWIL" Commercial Carrying Case

For lighting equipment, view and commercial cameras. Strong, reinforced riveted fibre; steel metal corners; brass snaps and lock; cloth lined wooden compartments.



Dimensions of Standard "NORWIL" 8x10 Camera Case: Length 27"; height 17"; width 9 1/2"; clearance above compartments 3"; compartments accommodate lens and boards, 8 to 10 plate or film holders. Space above compartments for hand flash lamps, focusing cloth, etc.

Cat. No. C-100 Price for Standard 8x10.....Net \$12.00

We will make to your order and specifications any reinforced fibre case for lights, cameras, etc. For prices on other sizes, furnish complete specification. Prices range from \$10.00 on the 5x7, up.

## Korona Reducing Backs

These convenient attachments for using holders of smaller sizes have become very popular no doubt because they have proved their worth as a practical addition to the commercial photographer's outfit.

### PRICES

#### Without Holder

4x5 for 3 1/4 x 4 1/4 holders.....	\$ 7.50
5x7 for 3 1/4 x 4 1/4, 4x5 or 3 1/4 x 5 1/2 holders.....	8.00
6 1/2 x 8 1/2 for 5x7 holders.....	10.00
8x10 for 6 1/2 x 8 1/2 or 5x7 holders.....	12.00
7x11 for 8x10 or 5x7 holders.....	12.00
11x14 for 10x12, 8x10 or 6 1/2 x 8 1/2 holders.....	15.00
7x17 for 6 1/2 x 8 1/2 holders, reversible.....	15.00
8x20 for 8x10 holders, reversible.....	18.00
3 1/4 x 5 1/2 Reversible Back for 4x5 Korona View.....	7.50
	(B)

## Kits

These are adapter-frames, allowing the use of smaller than the regular size plates in holders.

4x5 for 3 1/4 x 4 1/4 or 3 1/4 x 4 plates.....	\$ .35
5x7 for 3 1/4 x 4 1/4 or 4x5 or 3 1/4 x 5 1/2 plates.....	.40
6 1/2 x 8 1/2 for 4x5 or 5x7 plates.....	.50
8x10 for 6 1/2 x 8 1/2 or 5x7 plates.....	.60
11x14 for 8x10 plates.....	.80
8x20 for 7x17 plates.....	2.00
7x17 for 5x12 plates.....	1.50
	(E)

## Dry Plate and Cut Film Holders

### Ansco, Korona and Eastman

#### PRICES

	3 1/4 x 4 1/4	3 1/4 x 5 1/2	4x5	5x7	6 1/2 x 8 1/2	7x11	8x10	10x12	11x14
Korona.....	\$1.50	\$1.50	\$1.50	\$2.00	\$2.25	\$2.50	\$2.50	\$6.00	\$6.00
Ansco.....	1.50	1.75	1.75	2.00	2.50	2.50	2.50		
Eastman.....				2.50	3.00	3.00	3.00	9.00	9.00
									(F)

### Film and Plate Holder Slides

All Kinds.....	.30	.40	.50	.50	.70	.75
						(F)

## Perfecto Focusing Cloth

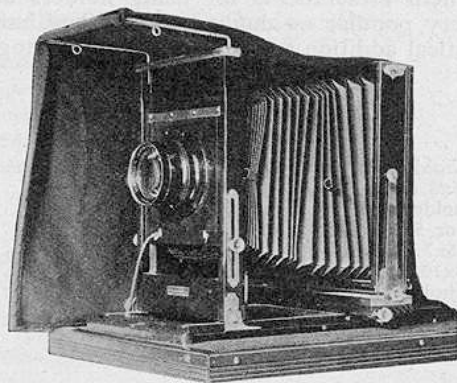
Our focusing cloth is made of the best material obtainable, light in weight, light tight and water proof.

#### PRICES

1 yard square.....	\$1.00
1 yard by 2 yards.....	2.00
	(G)



## Bixler Shade and Focus Cloth Holder



A light, compact, metal device, which can be attached to any view camera in a second; fits in grooves of lens board uprights without marring camera; acts as lens shade protecting the lens from top and sidelights. Grips any focus cloth and holds it securely. Indispensable in wind, rain or in the studio. Finished in nickel.

Cat. No. H-11.....Net \$1.00

## Eastman Adjustable Lens Hood

An efficient light shield. By means of a spring clasp and cord it may be instantly attached to a portrait lens barrel. It is covered with a fine grade of fabricated leather.

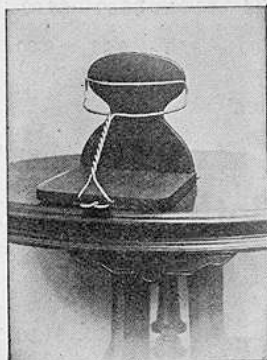
Cat. No.

H-12-0—For lens barrels from 2½ to 3½ in. in dia.....Net \$4.00

H-12-1—For lens barrels from 3½ to 4½ in. in dia.....Net 5.00

H-12-2—For lens barrels from 4½ to 6 in. in dia.....Net 6.00

## The "Real" Baby Holder



REAL BABY HOLDER

**HOLDS 'EM RIGHT  
and  
HOLDS 'EM TIGHT**

Can be placed in a posing chair or on table or any convenient posing furniture. Baby is held in a natural position. No part of the holder shows in the picture. No bulging of the clothing. You will be surprised how easy it is to take a picture with a REAL BABY HOLDER. Once tried you will always use one.

Cat. No. H-13...Net \$5.00



BABY IN HOLDER

# Filmo

BELL & HOWELL CO.

## Automatic Cine Camera and Cine Projector



Today anyone of ordinary means may enjoy the pastime of taking motion pictures and showing them at home, school, church, club, or in business sales.

Weighs only 4½ pounds. It is fully automatic; requires no tripod; loads in daylight; capacity 100 feet 16 mm. Eastman Ciné Film (equivalent 250 feet Standard Film). The operating cost is about 1/6th that of a standard camera. Film cost is astonishingly low and includes development and finishing ready to project on the Filmo Automatic Ciné-Projector.

### Filmo Automatic Cine-Projector

Weighs only 9 pounds; the smallest yet finest motion picture projector ever made. Capacity, 1000 picture feet, giving about 16 minutes of screen time. Accommodates all 16 mm. films including thousands of subjects of every description. Feature plays with well-known movie stars, comedies, travel, educational, etc., are now available for rental at nominal rates.

### Filmo Automatic Cine-Camera

Camera with Cooke F 3.5 Anastigmat Lens.....	\$165.00
Genuine leather Carrying Case for Camera, improved model with shoulder strap....	15.00
Double Speed Camera, operates at normal and twice normal speed.....	185.00
Superspeed Camera, operates only at eight times normal speed.....	275.00
Note: Carl Zeiss F 2.7 Photo Lens, in focusing mount, recommended to use with Superspeed Cameras.....	
	51.00

### Filmo Automatic Cine-Projector

Projector, including 2" or 2¼" lens, and carrying case.....	\$190.00
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### Accessories

#### FOR CAMERA

<b>LAMPS:</b>	
50-volt, 220 watt, each.....	\$ 3.00
<b>RESISTANCE AND VARYING VOLTAGES:</b>	
Variable Voltage Resistance (credit \$7.50 for return of fixed resistance).....	30.00
Projector with variable voltage resistance.....	210.00
Same with Ammeter.....	230.00
Line Current Resistor.....	2.00
Rheostat for 220-volt Circuit.....	17.50
Projector equipped for 32 Volt Circuit.....	200.00

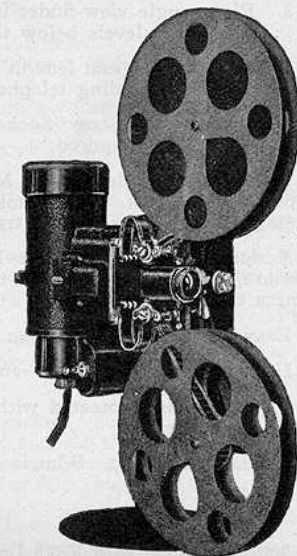
#### FILM:

100 ft. Rolls Film, each.....	6.00
50 ft. Rolls Film, each.....	4.00
(Price includes finishing and return transportation.)	

#### FOR PROJECTOR

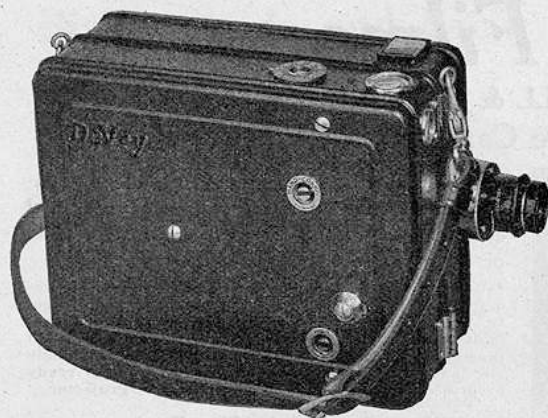
<b>SCREENS:</b>	
3'x4' Paragon.....	\$ 10.00
2'x2½' Trans-lux Daylight Screen.....	25.00
<b>LENSES:</b>	
2 or 2½" focal length, each.....	7.50
1, 1½, 3, 3½ or 4" focal length, each.....	8.50
<b>REELS:</b>	
400 ft. including reel can, each.....	1.50
100 ft. Film Spool, each.....	.75
50 ft. Film Spool, each.....	.65
<b>CONDENSERS:</b>	
45-50 Condenser.....	9.75
45-45 Condenser.....	9.75

Quotation upon request as well as on other Bell & Howell cameras, projectors and accessories. Ask for special motion picture catalogue.





"ORDER FROM NORMAN-WILLETS" CHICAGO



## DeVry

### Standard — Automatic Movie Camera

Made by the DeVry Corporation, manufacturers of the DeVry Portable Motion Picture Projector —of which more have been sold than of all other makes combined.

### Holds 100 Feet Standard Theatre Size Film

Designed for the Amateur as well as the Professional

Handsome, all metal, grained-leather finish case. Weight: 9 pounds. Size:  $8\frac{1}{2}'' \times 6\frac{1}{2}'' \times 3\frac{3}{4}''$ .

Accurate Automatic Footage Meter.

Three View-Finders—

1. Direct on the film—for accurate focusing, close-ups, etc.
2. Direct on the scene—for quick sighting (hinged on top of camera.)
3. Right angle view-finder in right upper corner, for shots taken from the hip or at other levels below the eye.

F 3.5—2" anastigmat lens in micrometer mount—any standard lens can be fitted to the camera, including telephoto. Focusing Range—2 ft. to infinity.

Universal M. P. Screw Socket permits attachment to any standard tripod where special effects are required.

Powerful Multiple Spring Motor operating like a 2 cylinder opposed motor, eliminates vibration. The whole 100 feet of film requires but two windings—including the paper leader and trailer—easy winding—a child can do it.

Action Lock—an exclusive DeVry feature—enables operator to release finger pressure, and either get into the scene himself or direct the action, while the camera runs merrily on.

Easy Threading—wide open to both hands.

Hand Crank for winding—and for special speeds in operating.

100 ft. spools, protected with opaque paper leader and trailer, slip on shaft all ready for action.

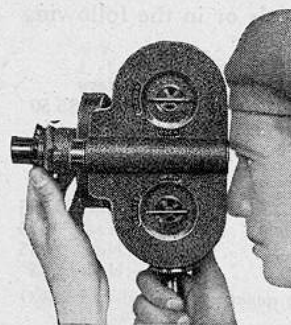
Loads in daylight. Film is automatic, self registering in position in loading.

Cat. No.	Price
C-200 Complete with F 3.5 Lens.....	\$150.00
C-200A Carrying case for above.....	15.00

"ORDER FROM NORMAN-WILLETS" CHICAGO

## EYEMO

Standard Film, Amateur-Professional Model



*Ready to Use at an Instant's Notice*

Raising the Camera to the eye, the cinematographer adjusts the focus and sets the diaphragm for exposure. Both are visible through the finder tube. A pull of a trigger and the picture is taken. Nothing easier. Nothing quicker. Speed where speed is necessary. EYEMO gets the picture while others get ready. And quality where good pictures are essential. Professional results with a professional camera.

The lightness, the compactness of EYEMO makes it an ideal portable Camera.

Compare its weight (7 pounds) with the weight of the average field Camera and it will be easily understood why EYEMO popularity was established in a day. It is as compact as a motion picture camera of equal capacity can ever be made. Is easily carried in the hand by the handle or in a small special built carrying case.

### SPECIFICATIONS

WEIGHT: 7 pounds.

SIZE:  $4\frac{1}{2}'' \times 6'' \times 8''$  (irregular shape).

CAPACITY: 100 to 120 feet standard 35 m/m film.

SPEED ADJUSTMENTS: Variable. Normal, 16 exposures per second; Half Normal, 8 exposures per second and single exposures. Variable during operation if desired.

DIALS: Diaphragm and focusing scale visible in finder tube and instantaneously adjustable. Footage dial range 2 feet to infinity.

TAKE UP: Positive action. No belts.

SHUTTER: 170° opening.

LEVEL: Visible in finder tube. Instantaneous adjustment.

LENS: 47 m/m F 2.5 Taylor-Hobson Cooke Anastigmat, highest quality, mounted in micrometer focusing mount.

VIEWFINDER: Upright position, always full and accurate view of field. Most effective and efficient finder ever produced. Matched units for each objective.

FILM: Standard 35 m/m: Daylight loading rolls of 100', or 120', loaded in dark room.

PORTABILITY: Unsurpassed for standard motion picture camera of this footage. No tripod to carry.

CARRYING CASE: Genuine leather cowhide made to hold camera set up ready to operate, six daylight rolls of film, key, filters, extra long focus lenses, etc.

TRIPOD: None required for short focus lenses up to 3 inches. For the longer focal length lenses any light compact folding tripod will do.

Cat. No. EYEMO CAMERA—Automatic 35 m/m Standard 100-Foot Cinematograph Camera with Taylor-Hobson Cooke F 2.5 Anastigmat lens, 47 m/m focal length..... \$336.00  
(Note: Camera is not sold without this lens.)

C-201A EYEMO CARRYING CASE—Genuine leather..... 21.00  
Accommodates camera, with operating handle, and six 100-foot rolls of film with additional compartments for extra lenses, filters, etc.

C-201B Combination rewind and splicer for 35 m/m film (may also be used for 16 m/m)..... 15.00

C-201C Color filter for 47 m/m Taylor-Hobson Lens..... 2.50

Prices and circulars descriptive of other Lens combinations and accessories furnished upon request.



## Motion Picture Film

(Standard 35 m/m)

Motion picture film is furnished in either spools or in the following lengths:

### 100 FOOT SPOOLS

100 ft. Rolls 35 m/m Dupont negative on metal spools, with paper leaders for daylight loading.....Net \$6.50  
100 ft. Rolls 35 m/m Eastman superspeed negative on metal spools, with paper leaders for daylight loading.....Net 7.50

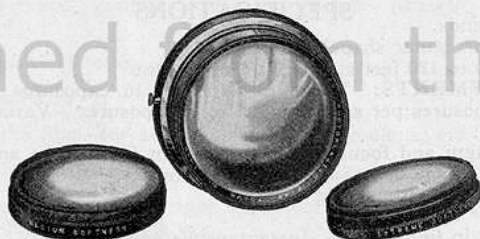
### LENGTHS

25 ft. Agfa negative (imported) superspeed, per ft.....Net \$0.055  
49 ft. Agfa negative (imported) superspeed, per ft.....Net .055  
82 ft. Agfa negative (imported) superspeed per ft.....Net .055  
197 ft. Agfa negative (imported) superspeed per ft.....Net .05

Note: Quotations furnished on large quantities of above negative film; also ANSCO positive.

Extra spools or magazines (for Eyemo), 100 capacity.....\$0.85  
Extra spools or magazines (for DeVry), 100 capacity......85

## Ilex Photoplastic F:4.5 Portrait Lenses



Portraits of pleasing softness are not a passing fad but, on the contrary, mark a decided advance in artistic portraiture.

It is in the degree of "softness" that photographers differ.

The ILEX PHOTOPLASTIC is designed to give just the effect which will meet the artist's taste and is best suited for the particular subject under consideration.

It has three distinct variations in softness: The regular rectilinear definition, medium softness, extreme softness. A separate rear element for each grade which obviates uncertainty as to the effect which will result.

With this lens, retouching is practically eliminated or reduced to a minimum.

Lens No.	Size of Plate Covered	Focus	Shutter No.	In Acme Shutter	In Universal Shutter	In General Shutter	In Bbl.	Single Elements Extra	9x9* Ilexpo Shutter
1	Movie	4 1/2"	1	\$26.50	\$23.00	\$20.00	\$20.00	\$4.50	\$
2	Movie	6"	2	33.00	29.00	26.00	26.00	5.00	
3	3 1/4 x 4 1/4	6 1/2"	3	36.00	31.50	28.50	28.50	6.00	
4	4x5	8 1/2"	4	47.50	42.50	40.50	40.50	7.50	
5	5x7	10 1/2"	5		60.00		54.00	12.00	
6	6 1/2 x 8 1/2	13"	5		86.00		80.00	16.50	
7	8x10	16"					98.50	20.00	118.50
8	11x14	21"					150.00	25.00	170.00

\*10x10 Ilexpo can be obtained for \$2.00 additional.

Complete Ilex Catalogue Furnished.

Quotations Upon Request; Also Part Payment Plan.

## Ilex-Paragon Anastigmat F:4.5

### The Latest in Scientific Lens Development



The development and perfection of this new series means another forward stride in modern objectives.

Their research laboratory has spared neither time nor effort to compute this lens, which is already recognized as the foremost corrected anastigmat working at F:4.5 on the market, and:

### THE PROOF IS IN THE NEGATIVE

The positive "Snap" and "Brilliancy" combined with great depth of focus and speed, make it the Ideal Lens for Speed, Commercial, Home and Studio Photography under the most trying conditions of lighting.

The five largest sizes have a diffusion device which enables the operator to introduce as much diffusion as desired.

### PRICE LIST

Lens No.	Size Plate	Focus	Shutter No.	In Universal Shutter	In Acme Shutter	In Barrel	In 9x9 Ilexpo Shutter
0	2 1/4 x 3 1/4	3 1/2	00		\$40.00	\$ 32.00	
1	3 1/4 x 4 1/4	5	1	\$41.50	45.00	35.00	
2	4 x 5	6 1/2	2	46.00	50.00	40.00	
3	5 x 7	7 1/2	3	58.00	62.50	48.00	
4	5 x 8	8 1/2	4	75.00	80.00	65.00	
5	6 1/2 x 8 1/2	10	5	120.00		95.00	\$115.00
6	8 x 10	12	5	145.00		130.00	150.00
7	10 x 12	14 3/4				160.00	180.00
8	11 x 14	15 3/4				205.00	225.00
9	14 x 17	20				325.00	345.00

Quotation Upon Request—Also Sold on Monthly Payment Plan.

Complete Ilex Lens Catalogue Upon Request.



## Ilex Lenses

Lens Aristocrats of Their Type

IlexTIGMAT F:6.3

These lenses are adapted for use on the highest type hand cameras, view and general commercial requirements. A convertible highly corrected Anastigmat.

No.	Size of Plate Covered	Equiv. Focus	Shutter No.	In Barrel	In General	In Universal	In Acme	In Cells	Focus of Single Combinations FRONT	BACK
0	2 1/4 x 3 3/4	3 1/2"	00	\$24.00	\$24.00	.....	\$32.50	\$14.50	.....	.....
1	3 1/4 x 4 1/4	5"	0	29.50	30.00	34.50	38.00	20.00	11"	7 3/4"
2	4 x 5	5 3/4"	1	33.00	34.00	37.00	40.50	22.00	12 5/8"	8 7/8"
3	3 1/4 x 5 1/2	6 1/2"	1	39.50	40.00	43.00	46.50	28.00	14 1/4"	10"
4	5 x 7	7 1/4"	2	48.00	49.00	52.00	56.00	36.00	15 7/8"	11 1/8"
5	5 x 8	8 1/2"	3	62.00	63.25	66.25	70.75	48.25	18 5/8"	13 1/8"
6	6 1/2 x 8 1/2	10"	4	75.00	76.00	78.00	83.00	68.00	21 1/8"	15 1/8"
7	8 x 10	12"	4	97.50	98.00	100.00	105.00	80.00	26 1/8"	18 1/2"
8	10 x 12	14 3/4"	5	140.00	.....	145.00	.....	.....	31 1/8"	22 3/8"
9	11 x 14	16 1/2"	5	181.00	.....	185.00	.....	.....	36 3/8"	25 1/8"
10	14 x 17	19 1/2"	Ilexpo	240.00	260.00	.....	.....	.....	42 3/4"	30"
11	16 x 20	23 1/2"	Ilexpo	320.00	340.00	.....	.....	.....	51 1/2"	36 1/4"

### Ilex-ANASTIGMAT SER "D" F:7.5

Especially suitable for enlarging, view and landscape work. Cannot be duplicated by any other make of lens at this price.



Lens No.	Size	Focus	Shutter or Barrel No.	In Gen.	In Universal	In Acme	In Cells
0	1 5/8 x 2 1/2	3 1/2"	00	\$17.00	.....	\$25.00	\$ 7.00
1	2 1/4 x 3 1/4	5"	0	18.00	\$22.50	26.00	8.00
2	3 1/4 x 4 1/4	5 3/4"	1	20.50	23.50	27.00	8.50
3	4 x 5	6 1/2"	1	21.00	24.00	27.50	9.00
4	3 1/4 x 5 1/2	7 1/4"	1	27.00	30.00	33.50	15.00
5	5 x 7	9 1/2"	3	46.00	49.00	53.50	.....
6	6 1/2 x 8 1/2	12"	4	60.00	62.00	67.00	.....
7	8 x 10	.....	.....	.....	.....	.....	.....

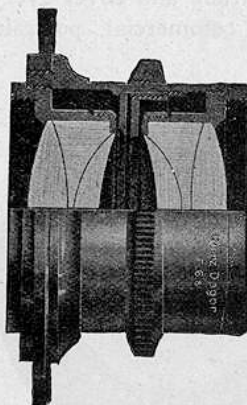
### Ilex CONVERTIBLE RAPID RECTILINEAR F:8

For general and view work. Also a good low price enlarging lens.

Lens No.	Size	Focus	Shutter or Barrel No.	In General	In Universal
1	3 1/4 x 4 1/4	5"	0	\$15.00	\$20.00
2	4 x 5	6 1/2"	1	19.00	22.00
3	5 x 7	8"	1	20.00	23.00
4	6 1/2 x 8 1/2	10 1/2"	3	33.00	36.00
5	8 x 10	12 1/2"	4	41.00	43.00
6	10 x 12	16"	5	.....	65.00
7	11 x 14	18 1/2"	5	.....	70.00
8	14 x 17	21"	5	.....	78.00
9	17 x 20	26"	7	.....	95.00

Quotation Upon Request—Also Sold on Monthly Payment Plan.  
Complete Ilex Lens Catalogue Upon Request.

## Goerz Dagor F 6.8 and F 7.7 Lenses



There is no lens better and more favorably known than the famous GOERZ DAGOR Anastigmat.

The superiority of this lens as a general purpose lens is conceded by the best known professional and amateur photographers the world over.

The Dagor consists of two symmetrical combinations each built up of three lenses cemented together. The mounting is very compact and the smaller sizes of this lens are therefore specially suitable for compact hand pocket folding cameras.

The definition produced by this lens is extremely sharp up to the corners of the listed plate, the light is evenly distributed and the internal reflections are reduced to a minimum. These qualities insure negatives full of detail and crispness, so desirable and necessary if enlargements are to be made from the original negative.

On account of the symmetrical construction of the Dagor the image is orthoscopic which means that straight lines in the object are reproduced as straight lines in the negative even at the extreme corners of the plate. This feature and the fact that the lens at its smaller diaphragm openings will include an image circle up to 90 degrees makes the Dagor the ideal lens for architectural and commercial photography, for copying and enlarging.

The maximum speed of the Dagor is F/6.8 and is fast enough to take sport pictures and fast moving objects under favorable light conditions with focal-plane shutter cameras.

At an opening F:64 Dagor Lenses will cover a plate with a diagonal of nearly twice the focal length.

The single element at a speed of F/13 may be used alone, furnishing a focal length about twice that of the complete lens. This makes the Dagor useful for photography at long range or for rendering architectural or landscape details on an enlarged scale from a given point of view. The Goerz Dagor is rightfully called the "Universal Lens" as it combines in one lens:

- 1) A rapid anastigmat of perfect corrections.
- 2) A wider angle lens at the smaller stops.
- 3) A long focus lens by using the single element.

The Dagor lens is either furnished in Iris diaphragm barrel for Reflecting, View or Studio cameras or in the sizes up to 12 inches focus with the Ilex-between-lens shutter. Other makes of shutters can be furnished on special order.

Number	Equivalent Focus—Inches	Full Opening	F:32	In Barrel with Iris Diaphragm	With Compound Shutter	With Acme Shutter
000a	F:6.8 3	2 3/4 x 2 3/4	3 1/4 x 4 1/4	\$ 31.50	\$ 45.00	\$ 49.50
00	" 3 1/2	3x3	4x5	31.50	45.00	49.50
00a	" 4	3x4	4 1/2 x 5 1/2	33.00	46.50	51.00
0a	" 5	3 1/4 x 4 1/4	5x8	36.00	49.50	54.00
1	" 6	4x5	6 1/2 x 8 1/2	42.00	57.00	60.50
1a	" 6 1/2	3 1/4 x 5 1/2	6 1/2 x 8 1/2	45.00	60.00	63.50
2	" 7	5x7	8x10	54.00	69.00	74.00
3	" 8 1/4	5x8	10x12	66.00	84.00	86.00
4	" 9 1/2	6 1/2 x 8 1/2	11x14	78.00	96.00	100.50
5	" 10 3/4	7x9	12x16	90.00	111.00	115.00
6	" 12	8x10	16x18	107.00	128.00	132.00
7	F:7.7 14	10x12	18x22	138.00	168.00	163.00
7a	" 16 1/2	11x14	20x24	183.00	213.00	.....
8	" 19	12x15	22x25	210.00	249.00	.....
9	" 24	16x18	24x30	330.00	.....	.....
10	" 30	18x22	30x36	540.00	.....	.....

Quotations Upon Request; Also Monthly Payment Plan.



"ORDER FROM NORMAN-WILLETS" CHICAGO

## CARL ZEISS - JENA LENSES

These world famous lenses are offered to our trade and cover every phase and scope of photography—the amateur, commercial, portrait, photo engraver and scientist.

The UNIVERSAL class consists of

TESSARS F 4.5 and F 6.3.  
PROTAR F 9.  
DOUBLE AMATAR F 6.8.  
DOUBLE PROTAR F 6.3, F 7,  
F 7.7 and F 12.5.

The SPECIAL lenses are

CINEMATOGRAPH F 3.5 (short focus).  
PORTRAITURE TESSAR F 3.5 (long focus).  
WIDE ANGLE F 18 (extreme Protar).  
PROCESS Apochromatic Planars and Tessars.  
TELE-PHOTOGRAPHIC Magnars F 10.



The Zeiss products are so extensive that space will not permit of full descriptive matter or complete prices. We are giving below the latest prices on the Ic, F 4.5 TESSAR, it being one of the popular lenses for general photography. Complete detailed catalogue will be sent any of our customers upon request.

PRICE LIST OF Ic F:4.5 TESSAR

No.	LENS Focal Length cm.	in.	For Cameras	In Standard Mount N	In Sunk Mount B	In Focusing Mount A	In Comp. Shutter
10	4	1½	1½x1¼"	\$ 31.00	.....	\$ 42.00	\$ 41.00
11	5.5	2¼	1¾x1¼"	31.00	\$ 33.50	42.00	41.00
11a	6.5	2½	1¾x2"	31.00	33.50	42.00	41.00
11b	7.5	3	1¾x2¾"	32.50	35.00	43.50	42.50
12	9	3½	2¼x3¼"	32.50	35.00	43.50	42.50
13a	10.5	4⅞	2¼x3½"	35.00	37.50	46.00	45.00
13	12	4¾	2½x3½"	36.00	38.50	47.00	46.00
14	13.5	5¼	3¼x4¼"	40.00	43.50	53.50	54.00
15	15	6	4 x5"	45.50	49.00	59.00	59.50
15b	16.5	6½	3¼x5½"	51.50	56.00	68.00	65.50
15a	18	7	4¾x6½"	60.00	64.50	76.50	74.00
16	21	8¼	5 x7½"	82.00	87.00	102.00	98.50
17	25	10	5 x8"	115.00	120.00	145.00	134.00
18	30	12	6½x8½"	165.00	172.50	202.50	190.00
18a	36	14	7 x9"	215.00	.....	.....	.....
19	40	16	8 x10"	267.50	.....	.....	.....
20	50	20	10 x12"	410.00	.....	.....	.....

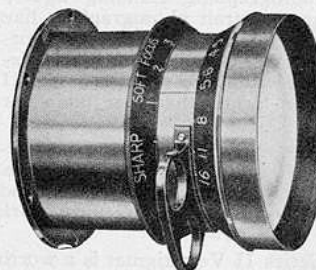
Quotations Upon Request; Also Monthly Payment Plan.

"ORDER FROM NORMAN-WILLETS" CHICAGO

## TAYLOR-HOBSON COOKE LENSES

### Portrait Anastigmats

f:3.5 f:4.5 f:5.6



By turning the finger-grip, the image can be made sharp or soft as desired, the degree of diffusion being easily read on the scale.

With a Taylor-Hobson Cooke Portrait Anastigmat, the lines on the faces of elderly people can be softened, yet the likeness preserved.

For child photography the speed of the lens is essential and its wide range of definition a big advantage.

The image can be made soft enough to obviate retouching and sharp enough to enlarge without loss of detail.

#### SPECIFICATIONS AND PRICES

Series	Equiv. Focus	Plate covered	Price
IIa	f:3.5	9½ in. 4¾ x 6½	\$173.00
		10½ in. 5 x 7	202.00
		12½ in. 6½ x 8½	259.50
		15 in. 8 x10	403.50
II	f:4.5	10½ in. 5 x 8	130.00
		12½ in. 7 x 9	180.00
		15 in. 8 x10	252.00
		18 in. 10 x12	504.00
VI	f:5.6	13 in. 7 x 9	130.00
		15½ in. 8 x10	180.00
		18 in. 10 x12	252.00

Quotations Upon Request; Also Monthly Payment Plan.

## BAUSCH & LOMB LENSES

Ic TESSAR f:4.5

"America's Master Anastigmat" is characterized by speed, needle point definition and unusual covering power.

The series includes eleven sizes with equivalent focal lengths varying from 3½ to 19½" and covering plates from 2¼x3¼" to 14x17".



No.	Plate Covered at f:4.5	Equivalent Focus Inches	Diameter of Lens Inches	In Barrel with Iris Diaphragm	In Compound Shutter Without Barrel
12	2¼ x 3¼	3¾	¾	\$ 32.50	\$ 51.50
13	2½ x 3½	4½	1	36.00	55.00
14	3¼ x 4¼	5½	1¼	40.00	61.00
15	4 x 5	6½	1½	45.50	66.50
15A	5 x 7	7½	1¾	60.00	85.00
16	5 x 8	8½	1¾	82.00	107.00
17	6½ x 8½	9½	2	115.00	150.00
18	8 x10	11½	2¼	165.00	205.00
18A	10 x12	14½	3	215.00	.....
19	11 x14	15½	3½	267.50	.....
20	14 x17	19½	4½	410.00	.....

Note: Complete line of Cooke and Bausch & Lomb Lenses carried. Circulars upon request.

Quotations Upon Request; Also Monthly Payment Plan.



## Wollensak Lenses

### Series II Velostigmat f:4.5



For general-purpose work in the studio, for use in home portraiture, for speed work with the reflecting type of camera, the Series II is pre-eminent.

Studio workers find that its perfectly flat field helps in photographing standing figures and groups. Home portrait photographers like its compact construction. However, for portrait work, where the best perspective is desired, it would be advisable to select a Series II Velostigmat a size larger than the plate for which it is listed.

The Series II is very versatile, and its usefulness is not confined to portrait work alone. It is admirable for copying and enlarging and is even suitable for commercial and view work when slightly stopped down.

In short, the Series II Velostigmat is a worth while addition to any photographer's equipment.

### PRICES

#### Series II Velostigmat f:4.5

No.	Size	Equivalent Focus	Diameter of Lens	Flange (inside)	In Barrel	In Studio Shutter	In Betax Shutter	In Optimo Shutter
0	2 1/4 x 3 1/4	3 1/2 in.	3 1/2 in.	1 1/8 in.	\$34.00		\$36.00	
1	3 1/4 x 4 1/4	5 in.	5 in.	1 1/8 in.	37.50		41.50	\$46.50
*2	4 x 5	6 in.	6 in.	1 1/8 in.	42.00		49.00	51.00
3	5 x 7	7 1/2 in.	7 1/2 in.	1 1/8 in.	52.50		58.50	63.50
3A	5 x 8	8 1/4 in.	8 1/4 in.	2 1/8 in.	67.50		76.50	81.00
4	6 1/2 x 8 1/2	9 1/2 in.	9 1/2 in.	2 1/8 in.	105.00		110.00	115.50
5	8 x 10	12 in.	12 in.	3 1/8 in.	140.00	\$146.50	149.00	
6	10 x 12	14 in.	14 in.	3 3/8 in.	185.00	190.00		
7	11 x 14	16 in.	16 in.	4 1/8 in.	240.00	245.00		
8	14 x 17	19 1/2 in.	19 1/2 in.	4 3/8 in.	365.00	366.00		

\* No. 2 can also be furnished in 6 1/2 inch focal length at same price.

#### Series IV Velostigmat f:6.3

The fully corrected anastigmat of good speed and moderate price

No.	Size	Equivalent Focus	Diameter of Lens	Flange (inside)	In Cells	In Barrel	In Betax Shutter	In Optimo Shutter
0	2 1/4 x 3 1/4	3 1/2 in.	3 1/2 in.	1 1/8 in.	\$12.50	\$20.50	\$22.50	
1	3 1/4 x 4 1/4	5 in.	5 in.	1 1/8 in.	13.50	21.50	23.50	\$28.50
2	4 x 5	6 in.	6 in.	1 1/8 in.	14.50	22.50	26.50	31.50
2A	5 x 7	7 1/2 in.	7 1/2 in.	1 1/8 in.	15.00	23.00	27.00	32.00
3	5 x 8	8 1/4 in.	8 1/4 in.	2 1/8 in.		32.50	39.50	41.50
4	6 1/2 x 8 1/2	9 1/2 in.	9 1/2 in.	2 1/8 in.		50.00	56.00	61.00
5	8 x 10	12 in.	12 in.	3 1/8 in.		70.00	79.00	83.50

#### Series IIIa Extreme Wide Angle f:12.5

90° at Full Aperture

No.	Size	Larger Plates Smaller Stops	Equivalent Focus	Diameter of Lens	Flange (inside)	In Barrel	In Betax Shutter
3	5 x 7	6 1/2 x 8 1/2	4 5/8 in.	3 1/2 in.	1 1/8 in.	\$23.50	\$27.50
4	6 1/2 x 8 1/2	8 x 10	5 3/8 in.	4 1/2 in.	1 1/8 in.	30.00	36.00
5	8 x 10	10 x 12	6 1/4 in.	5 1/2 in.	1 1/8 in.	33.50	39.50
6	10 x 12	11 x 14	7 1/2 in.	6 1/2 in.	2 1/8 in.	42.00	48.00
7	11 x 14	14 x 17	9 in.	8 1/4 in.	2 1/8 in.	52.50	58.50
8	14 x 17	17 x 20	11 in.	10 1/4 in.	3 1/8 in.	65.00	74.00
9	17 x 20	20 x 24	13 in.	12 1/2 in.	3 3/8 in.	80.00	89.00

Note: Complete Catalogue of Wollensak Lenses furnished.

Quotations Upon Request; Also Monthly Payment Plan.

## WOLLENSAK LENSES

Facts about the new

### Varium F:3.5



The lens supreme for

### PORTRAITS AND GROUPS

Characteristic of its name, the VARIUM is really an all-round studio lens. It embodies the specifications demanded by the portrait and group photographer, as well as the extreme speed needed for child photography.

A quality softness without the loss of firmness is available at full aperture f:3.5. with double lines and halation eliminated. This characteristic will appeal to the most critical taste, because it produces a negative that is sharp enough to suggest solidity, yet soft enough to eliminate retouching and ruining the gradation of skin texture.

Group work demands a sharp cutting lens. This feature is also embodied in the new VARIUM. With the diaphragm stopped to approximately f:6.3. (which in itself is essential for depth of focus), anastigmat definition is afforded and is sufficient to cut sharply to the edge of the plate.

Adequate focus in lenses for portraiture is a necessary requisite. It permits in photography the portraying of the subject true to life, in its proper proportions and with pleasing perspective. The VARIUM can be had in focal lengths that are adapted for present day needs in average studio and the home.

### PRICES

No.	Size	Diaphragm Focus	Speed	Furnished in Studio Shutter Only
4	6 1/2 x 8 1/2	14	f:3.5.	\$140.00
5	8 x 10	16	f:3.5.	150.00
7	11 x 14	19	f:4.	165.00

Quotations Upon Request; Also Monthly Payment Plan.



## Turner-Reich Convertible-Anastigmat F:6.8



The ideal lens from the photographer's viewpoint is one most suitable for the greatest variety of work. This is the Convertible Anastigmat, adaptable to every class of subject, and providing two single combinations of different focal lengths which are very useful for larger cameras than the complete lens is intended for, useful for obtaining an image of larger size without changing the view point and for many other contingencies which arise, the complete lens may also be used as a wide angle to cover plates one or two sizes larger. The optician's conception of an ideal lens takes into consideration not only its optical quality but also its freedom from air spaces, permanency of the glass and flexibility of the formula to permit maintaining an absolute standard of performance.

The Series II Turner-Reich Anastigmat F:6.8 meets all of these requirements in the fullest degree and its convertible feature alone gives it an advantage over any other type of anastigmat lens. How difficult it is to design a lens of the convertible type may be judged from the fact that very few optical concerns have succeeded in making lenses of this kind.

### PRICES AND SPECIFICATIONS

No.	Size	Equiva- lent Focus	Focus Front Comb.	Focus Rear Comb.	Diam. of Cells	Price in Cells	Price in Betax Shutter	Price in General Shutter	Price in Universal Shutter
0	3 1/4 x 4 1/4	5"	12"	8"	1 1/2"	\$ 45.00	\$ 53.00	\$ 55.00	\$ 59.50
1	4x5	6 1/4"	14"	11"	1 1/2"	53.00	62.00	65.00	68.00
2	5x7	7 1/2"	18"	12"	1 1/2"	60.00	72.00	73.00	76.00
3	5x8	8 1/2"	20"	14"	1 1/2"	68.00	80.00	83.00	86.00
4	6 1/2 x 8 1/2	10 1/2"	24"	18"	1 1/2"	92.00	105.00	108.00	111.00
5	8x10	12"	28"	21"	2 1/2"	112.00	127.00	130.00	132.00
*6	11x14	15"	36"	24"	2 1/2"	155.00	170.00	173.00	175.00

\*The No. 6 size has a working aperture of F:7.5. Working aperture of single combinations: Front F:16, Rear F:12.5.

Prices of barrel mounts with iris diaphragm

No. 0 \$8.00	No. 2 \$10.00	No. 4 \$12.00	
No. 1 9.00	No. 3 12.00	No. 5 15.00	No. 6 \$20.00

The charge for special fitting of lens in cells to a barrel or shutter depends upon the time required to do the work.

Complete catalogue on Turner-Reich lenses upon request.

Quotations Upon Request; Also Monthly Payment Plan.

(Fitting Charges Net)

## GUNDLACH-MANHATTAN LENSES



### Radar F:4.5

#### Anastigmat—A High Speed Lens



The essentials of a high speed lens are—critical definition and a flat field at full aperture with a brilliant image and these conditions are met in the highest degree by the Radar Anastigmat F:4.5, in design a simple lens comprising five components, two forming an uncemented front combination and the other three a cemented rear combination. This formation is favorable to the elimination of flare from internal reflections and the lenses are so thin that light absorption is a negligible quantity.

This lens has all the qualities a strictly high grade lens must possess, and it is suitable for every class of photography which demands a lens combining rapidity and optical efficiency. For portraiture in the studio or home, and groups as well as outdoor high speed shutter work, under all conditions it is an ideal lens.

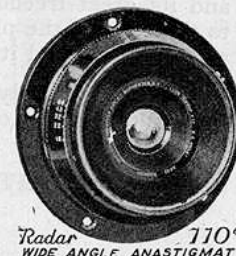
No.	Size	Equi. Focus	Price in Barrel	Price in Betax Shutter	Price in Acme Shutter	Price in Compound Shutter
00	2 1/4 x 3 1/4	3 1/2"	\$ 35.50	\$ 35.50	\$ 45.50	\$ 45.50
0	3 1/4 x 4 1/4	5"	42.50	42.50	52.00	52.50
1	4x5	6 1/4"	51.00	51.00	61.50	60.00
2	5x7	7 1/2"	64.50	64.50	74.50	74.50
3	5x8	8 1/2"	78.00	78.00	88.00	88.00
4	6 1/2 x 8 1/2	10 1/2"	122.50	120.50		137.50
5	8x10	12"	159.00	152.00		169.00
6	10x12	15"	191.00			
7	11x14	18"	242.50			

### Radar F:16 Wide Angle Lenses

#### 90 and 110 Degree Angle

A wide angle lens is indispensable for taking interiors and exteriors including many subjects which are so situated that there is not sufficient working distance to permit using a lens of normal focal length.

The Radar Extreme Wide Angle Lenses F:16 are the best type of lenses for the purpose. It gives critical definition, with a flat field and uniform illumination, including an angle of 90 degrees and the Radar special, an angle of 110 degrees with ample covering power to provide for using the rising front.



Radar 110°  
WIDE ANGLE ANASTIGMAT

### PRICE LIST

No.	Size	Equivalent Focus	In Barrel Iris Diaphragm	In Betax Shutter
2	5x7	4 3/8 in.	\$22.00	\$32.00
4	6 1/2 x 8 1/2	5 3/8 in.	28.00	38.00
5	8x10	6 3/4 in.	32.00	42.00
6	11x14	9 in.	50.00	60.00
7	14x17	12 in.	65.00	75.00
8	17x20	14 in.	85.00	95.00
Special	8x10	4 1/2 in.	60.00 only	

Quotations Upon Request; Also Monthly Payment Plan.



"ORDER FROM NORMAN-WILLETS" CHICAGO

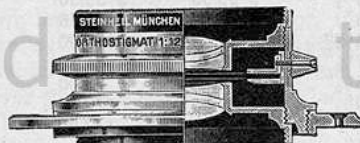
## STEINHEIL LENSES

The firm of C. A. STEINHEIL SOHNE has been among the foremost leaders of lens manufacturers in Germany for the past three-quarters of a century. So well known are the products of this firm throughout continental Europe and so wide and steady has been the demand for their output, that foreign markets have heretofore been practically neglected.

Lenses bearing the name of STEINHEIL have for the last 70 years been regarded as the standard of excellence and still are the choice of the large majority of serious workers in the country in which they are produced. These lenses are again offered in the American market at very reasonable prices.

### Orthostigmat F:12

#### Series E



The exceptional feature of this lens is that it covers an angle of view of over 100° at the remarkable speed F:12, thus making it superior to any high grade wide angle lens on the market. It is unexcelled in any capacity in which a wide angle lens may be required and its great freedom from perspective distortion, critical sharpness to the edge of the plate for which it is listed, and fine corrections will at once commend it as the wide angle instrument "par excellence."

The lens not only gives an extreme wide angle, but also very uniform illumination of the entire field.

As an auxiliary lens to any photographic outfit the wide angle ORTHOSTIGMAT F:12 is indispensable.

#### Angle of View Over 100.

No.	Focal Length Inches	Aperture, Inches	Size of Plate Covered Inches	Diameter of Sharp Image Inches	Price Barrel Mount
1	3	1/4	3 1/4 x 4 1/4	7 1/2	\$31.00
1a	3 1/2	1/3	4 x 5	8 3/4	32.00
2	4 1/4	3/8	5 x 7	10	34.00
3	6	1/2	8 x 10	13 1/2	38.00
4	7 7/8	5/8	10 x 12	17 1/4	47.00
5	10 1/4	1 1/4	12 x 16	21	56.00
6	13	1 1/2	14 x 18	24	76.00

Quotation Upon Request—Also Sold on Monthly Payment Plan.  
Complete Steinheil Lens Catalogue Upon Request.

"ORDER FROM NORMAN-WILLETS" CHICAGO

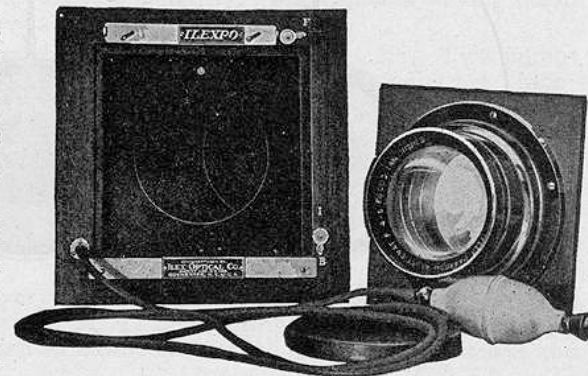
## I L E X P O

### The Silent Behind-the-Lens Shutter

(Made in three sizes.)

Ilex, always in the forefront to give the photographer what he wants, has after months of experimenting, perfected a shutter of this type, which needs but a description and outline of its features, to insure its popularity.

Built into a standard 9x9 Front Board, thereby simplifying its attachment to the Studio Camera.



Focusing lever at the top, entirely independent of the Speed Set Lever at the bottom permits the operator to set shutter for focusing, and at the same time set Speed Set Lever at the desired timing indication, either Bulb or Instantaneous.

It is then not necessary to again go near the front of the shutter.

After having focused, shutter is closed simply by pressure of bulb, and is ready for immediate action by second pressure of bulb, for the taking of picture.

Is equipped with the two popular exposures, "Bulb" and "Instantaneous." The speed of Instantaneous can be regulated at the will of the operator. A quick pressure of bulb, giving a fast instantaneous speed. A slower pressure, a correspondingly slower speed.

Familiarity with the shutter will prove the great advantage of these features.

Operates with bulb and tube only.

At present supplied only in the sizes as noted below.

Cat. No.	Light Aperture	Lens Opening	Outside Dimensions	Price
*S-404-0	2 1/2"	3"	5"x5"	\$16.50
S-404-1	4 1/8"	4 1/2"	9"x9"	20.00
S-404-2			10"x10"	22.00

\*No. S-404-0 size is fitted to your own front board of 5x5 inches or larger. Does not have interchangeable feature of the larger sizes. (G)

## Camera Repairing and Service Department

For the convenience of our customers we operate one of the largest and best equipped camera repair departments in the central states. We repair any instrument ranging from the Box Brownie to and including the Motion Picture camera.

Our Camera Repair Department is under the supervision of an efficient engineer with a competent corps of assistants who are familiar with any make of camera or accessory.

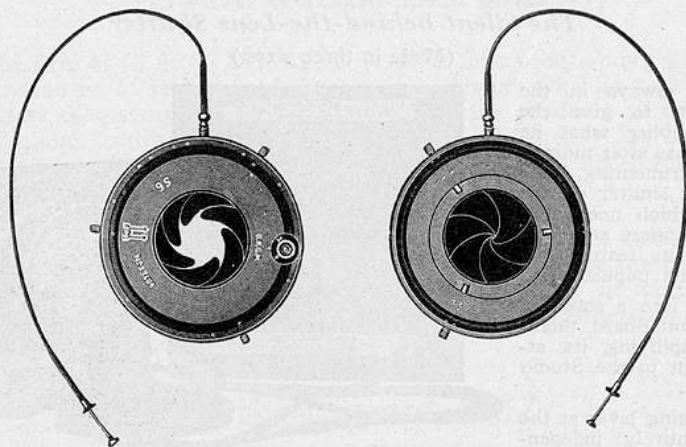
We endeavor to give our customers the best possible service consistent with good workmanship and at a nominal charge.

Estimates will be gladly furnished if explicit information is given or send cameras to us and estimates will be given before work is started.

Dealers or Photographers who are buying from us regularly will be furnished with Camera Repair Display cards and repair tickets upon request.



## Luc Before-The-Lens Iris Shutter



This new, practical and well constructed Iris diaphragm shutter will be found superior to the wing shutter heretofore provided for use in the studio, and the more compact construction of this "Luc" should make it popular for out door use also.

The mechanical construction is a simple one and not likely to become deranged with use. The speeds are limited to time "Z" and instantaneous "M" and the shutter can be opened for focusing by turning the dial to "O." The model for use on the front of the lens slips over the hood and is fastened by three milled head friction pins which grip the lens hood. The shutter is manipulated by an antinous release which is supplied and included in the price.

### SIZES AND PRICES

Cat. No.	Diam.	Price	Cat. No.	Diam.	Price
S-406-1	1 1/8"	\$6.00	S-406-6	3 1/8"	\$8.25
S-406-2	1 3/8"	6.25	S-406-7	3 3/8"	8.75
S-406-3	2"	6.50	S-406-8	3 7/8"	9.00
S-406-4	2 1/8"	7.00	S-406-9	4 1/8"	9.50
S-406-5	2 3/8"	7.25	S-406-10	5 1/8"	10.50

Specify Cat. No. giving outside diameter of Lens barrel.

## Ilex Shutters

The ILEX OPTICAL COMPANY were pioneers in the development of a dependable photographic shutter and to this day ILEX maintain their superiority in the shutter field. Furnished in three models as follows:

The ILEX-ACME Shutter, which is of the set type with speeds of one second, 1/2 second, 1/5th, 1/25th, 1/50th, 1/100th, 1/200th, 1/300th and T & B.

The ILEX-UNIVERSAL Shutter, which is automatic in action and has speeds of one second, 1/2 second, 1/5th, 1/10th, 1/25th, 1/50th, 1/100th and T & B.

The ILEX GENERAL Shutter, also automatic in action, with speeds of 1/5th, 1/10th, 1/25th, 1/50th, 1/100th and T & B.

Lens No.	Light Aperture	Lens Opening	Outside Diameter	Acme	Universal	General
00	1 1/8"	1 1/8"	1 7/8"	\$18.00		\$10.00
00	1 3/8"	1 3/8"	2 1/8"	18.00	\$14.50	10.00
0	1 1/2"	1 1/2"	2 1/4"	18.50	15.00	12.00
1	1 3/4"	1 3/4"	2 5/8"	20.00	16.00	13.00
2	2"	2"	3"	22.50	18.00	15.00
3	2 1/8"	2 1/8"	3 1/8"	25.00	20.00	18.00
4	2 1/4"	2 1/4"	3 3/8"		30.00	
5	2 3/8"	2 3/8"	3 7/8"			

Note: See Ilexpo Shutter for Studio Cameras.

## Packard Shutter No. 5, 6 and 8

The No. 5 has three wings, with the special advantage of a very large opening in a very small shutter. It is nicely finished, simple in construction and works smoothly and lightly. For cameras having small front board, this shutter is especially adapted.

The No. 8 eliminates the use of the instantaneous pin. Two pumps operated with separate bulbs, allow immediate action for either "time" or "instantaneous" exposures. The bulbs of different color indicate instantly to the operator how to obtain the exposure desired. RED for time exposures; WHITE for instantaneous exposures.

The No. 6 is the regular No. 5, embodying all its advantages with the addition of the Instantaneous Attachment, and is made to go on the front board side of the camera. It is easily changed from time to instantaneous exposures.

The shutter works very fast, and the mechanism is very simple, with nothing to get out of order. At no time during an exposure is there any jar or vibration, and used as a time shutter it is absolutely noiseless and silent in opening.

### SIZES AND PRICES

Dia. Opening	Outside Dimensions	No. 5 Cat. No.	Price	No. 6 Cat. No.	Price	No. 8 Cat. No.	Price
1 1/2" x 3 1/4"	square	S-400A	\$6.50	S-401A	\$8.00		
1 3/4" x 3 1/2"	square	S-400B	6.50	S-401B	8.00		
2" x 4"	square	S-400C	6.50	S-401C	8.50		
2 1/4" x 4 1/2"	square	S-400D	7.00	S-401D	8.50		
2 1/2" x 4 3/4"	square	S-400E	7.75	S-401E	8.50	S-402E	\$10.00
2 3/4" x 5"	square	S-400F	7.75	S-401F	9.00	S-402F	10.50
3" x 5 1/4"	square	S-400G	7.75	S-401G	9.00	S-402G	10.75
3 1/4" x 5 1/2"	square	S-400H	7.75	S-401H	9.00	S-402H	10.75
3 1/2" x 6 1/2"	square	S-400J	7.75	S-401J	9.00	S-402J	11.00
3 3/4" x 7"	square	S-400K	7.75	S-401K	9.75	S-402K	11.50
4" x 7 1/2"	square	S-400L	8.25	S-401L	9.75	S-402L	12.00
4 1/2" x 8"	square	S-400M	8.75	S-401M	11.00	S-402M	12.50
5" x 8 1/2"	square	S-400N	9.25	S-401N	12.00	S-402N	13.00

## Enlarging and Copying Shutter

### New Packard No. 7

This shutter is fitted with ruby non-actinic wings. It is absolutely safe and generally used on the front of the lens attached to the enlarging or copying camera. Can be operated with or without rubber bulb.

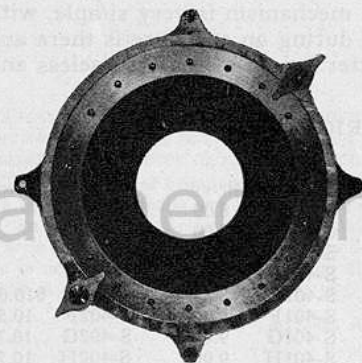
Cat. No.	No. 7	Size, In.	Price
S-403C		2"	\$6.00
S-403D		2 1/4"	6.25
S-403E		2 1/2"	6.50
S-403F		2 3/4"	6.75
S-403G		3"	7.00
S-403H		3 1/4"	7.25
S-403J		3 1/2"	7.50
S-403K		3 3/4"	7.75
S-403L		4"	8.00
S-403M		4 1/2"	8.50



## Condensing Lenses

The condensing lenses listed below are accurately ground and polished, and will be found much superior to the imported lenses commonly employed for this purpose. When condensers are wanted mounted, we supply them in our improved mounts, which are so constructed that there is the least possible danger of the lenses breaking when heated. The mountings are also very neat and compact.

Diameter:	ONE LENS		PAIR OF LENSES	
	Unmounted	Mounted	Unmounted	Mounted
4 1/2 Inches.....	List each \$ 1.75	Net each \$ 1.15	List each \$ 5.00	Net each \$ 3.30
6 1/2 Inches.....	6.00	4.00	18.00	12.00
8 Inches.....	9.00	6.00	25.00	16.65
9 Inches.....	12.00	8.00	32.00	21.30
10 Inches.....	15.00	10.00	38.00	25.30
12 Inches.....	30.00	20.00	70.00	46.65
14 Inches.....	45.00	30.00	102.00	68.00



## Iris Lens Flanges

This is an adjustable flange, which is attached to front board and will accommodate various size lenses without any additional attachment. For example, the No. 1 is for lenses measuring 4-10 to 2 4-10 inches in diameter.

No.

F-901A1	For lenses 4-10 to 2 4-10" Dia..	\$5.50
F-901B2	For lenses 4-5 to 3 1-5" Dia....	6.00
F-901C3	For lenses 1-5 to 4" Dia.....	6.75
F-901D4	For lenses 2 to 3 3/4" Dia.....	8.00

(C)

## F. & S. Vignetter

This vignetter is for use with Century or Semi-Centennial Studio stands. The operator may control all its movements and adjust it to any desired position while focusing his camera.

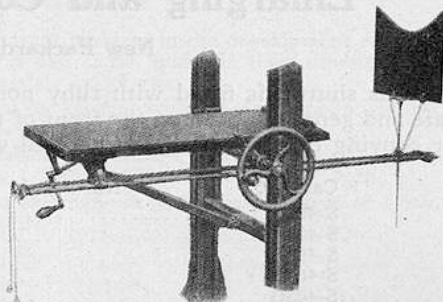
The vignetter card is attached to a vertical rod set at the end of two horizontal metal tubes.

Turning the knob on one tube raises and lowers the vignetter, while the other tilts the vignetter towards, or away from the lens. Cords passing through the tubes control the oscillating movement. The entire vignetter may be moved back and forth, a binding screw on the rear bracket locking the tubes in the desired position.

The metal parts are steel and brass in gun-metal finish.

Length over all—50 inches. Size of card, 9x18 inches; black on one side, grey on the reverse.

Cat. No. V-10—F. & S. Vignetter.....(C) \$16.00



No. 1316-B



No. 1317-B

Size	Price
5x6 feet .....	\$ 7.50
6x8 feet .....	12.00
Other sizes, per square foot.....	.25
Oil extension, per square foot.....	.15

In ordering always specify "as per illustration" or "reverse."

## "Norwil" Backgrounds

### Latest Up-to-date Designs

Norwil Backgrounds are painted on special order and the varied designs shown in this book are our latest offering. The photographic effect of a background depends on how it is placed and lighted. The detail is easily regulated by the distance the background is placed from the sitter. The tone is regulated by the amount of light and its direction. Backgrounds painted in a medium tone are the best, as deep effects can be secured by inclining them from the light, and light effects by turning them toward the light.

### Important in Ordering

Always state the size and number of the design, and always state whether the design is to be painted "as per illustration" or "reverse of illustration." State what shade is wanted, and whether floor extension is desired. Unless otherwise specified, we always paint as specified below. Delivery, about 10 days.

### Material

Unless otherwise ordered, we paint in a warm black distemper (water-color) on unbleached muslin. As distemper will give much softer results than flatted oil, we recommend it for the background itself, but will paint in flatted oil when instructed at an additional price of 9 cents per square foot. Floor extensions will wear better if painted in oil, and we so paint them unless otherwise instructed.



**"ORDER FROM NORMAN-WILLETS" CHICAGO**

## "Norwil" Interior Backgrounds



No. 1462



No. 1463

Nos: 1462-1463

Size	Price	With 7-foot oil-color extension
6x 8 feet.....	\$17.30	\$23.60
8x 8 feet.....	19.20	27.60
8x10 feet.....	24.00	34.50
Other sizes, 8x8 or larger, per square foot.....		
		\$0.30
Other sizes, smaller than 8x8, per square foot.....		
		.36
Oil - Color extension per square foot .....		
		.15 (G)

## "Norwil" Scenic Background

No. 1420

Size	Price	With 7-foot oil-color extension
6x 8 feet.....	\$17.30	\$23.60
8x 8 feet.....	19.20	27.60
8x10 feet.....	24.00	34.50
Other sizes, 8x8 or larger, per square foot.....		
		\$0.30
Other sizes, smaller than 8x8, per square foot.....		
		.36
Oil - Color extension per square foot .....		
		.15 (G)

In ordering always specify "as  
per illustration" or "reverse."

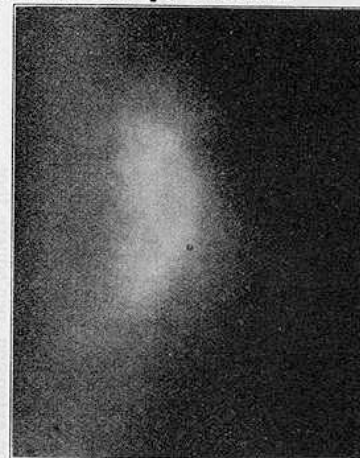


No. 1420

**"ORDER FROM NORMAN-WILLETS" CHICAGO**

## "Norwil" Clouded Headgrounds

In standard colors; pearl-white, blue-white, silver-gray, steel-gray, and red-black.  
Painted in distemper on muslin.



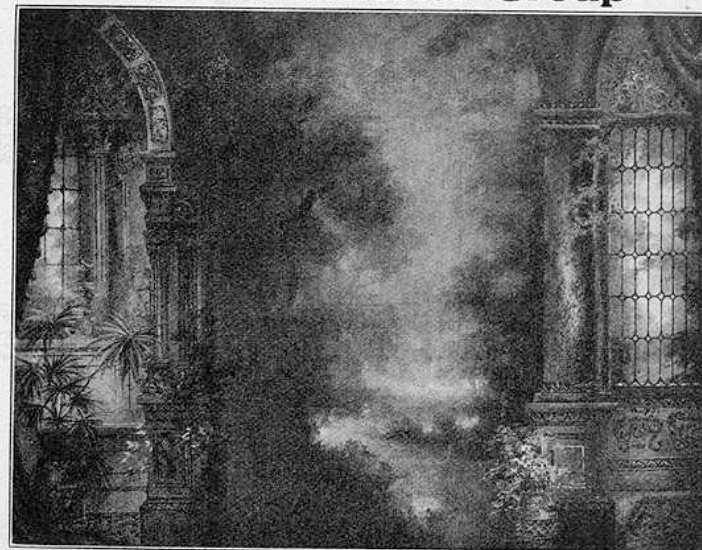
No. 1119

Size	Price
5x6 feet .....	\$ 7.50
6x8 feet .....	12.00
Larger sizes, per square foot.....	.25
Oil-color extension, per square foot .....	.15 (G)



No. 1019

## "Norwil" Interior Group



No. 1492

Size	Price	With 7-foot oil-color extension	Other sizes, per square foot..\$0.30 Oil-color extension, per square foot .....
8x10 feet .....	\$24.00	\$34.50	.15
9x12 feet .....	32.50	45.00	(G)
10x14 feet .....	42.00	56.25	
10x16 feet .....	48.00	65.00	

In ordering always specify "as per  
illustration" or "reverse."

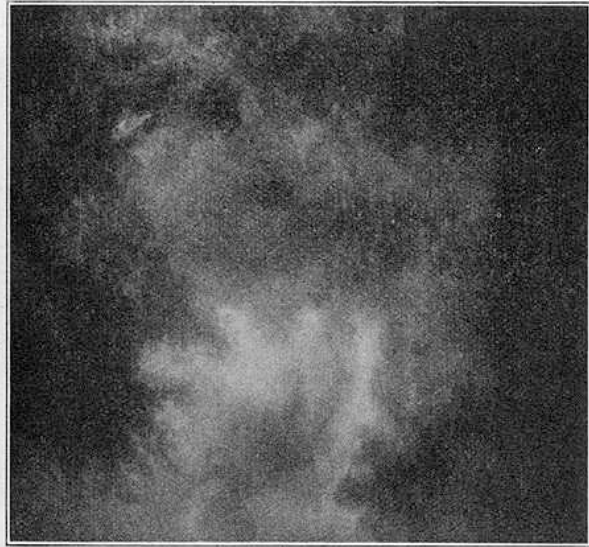


## "Norwil" Scenic Backgrounds

"Scenic"



"Scenic"



### No. 1423-B

Size	Nos. 1423-B and 1468-B	Price	With 7-foot oil-color extension
6x 8 feet	.....	\$17.30	
8x 8 feet	.....	19.20	
8x10 feet	.....	24.00	

### No. 1468-B

Other sizes, 8x8 or larger, per square foot.....	\$0.30
Other sizes, smaller than 8x8, per square foot.....	.36
Oil-color extension, per square foot.....	.15

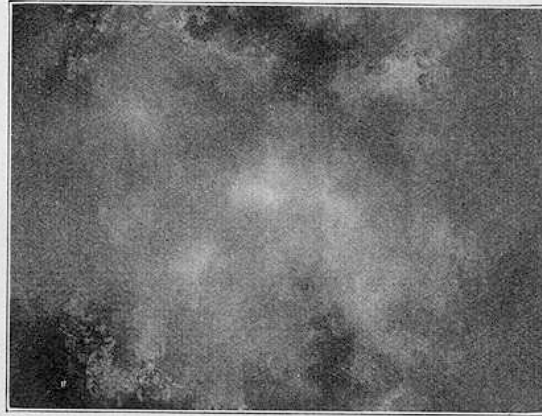
In ordering always specify "As per illustration" or "Reverse."

## "Norwil" Backgrounds

"Scenic"



"Cloud"



### No. 1419-B

Size	Price
6x8 feet	.....
8x8 feet	.....

Nos. 1419-B and 1481-B	Price	with 7-foot oil-color extension
.....	\$12.20	
.....	16.15	

### No. 1481-B

In ordering always specify "As per illustration" or "Reverse."

"ORDER FROM NORMAN-WILLETS" CHICAGO

"ORDER FROM NORMAN-WILLETS" CHICAGO



## "Norwil" Backgrounds

"Scenic"

"Art Flower"



No. 1435-B



No. 1480-B

Size	Price	With 7-foot oil-color extension
6x 8 feet.....	\$17.30	\$23.60
8x 8 feet.....	19.20	27.60
8x10 feet.....	24.00	34.50
Other sizes, 8x8 or larger, per square foot.....\$0.30		
Other sizes, smaller than 8x8, per square foot......36		
Oil-color extension, per square foot......15		

## "Norwil" Plain Backgrounds

In standard colors; pearl-white, blue-white, silver-gray and red-black. Painted in distemper on muslin.

Size	Price	With 7-foot oil-color extension
5x 6 feet.....	\$ 4.30	.....
6x 8 feet.....	6.90	\$13.20
8x 8 feet.....	9.70	18.00
8x10 feet.....	11.50	22.00
(G)		
Larger sizes, per square foot.....\$0.14		
Oil-color extension, per square foot......15		

## Clouded and Blended Grounds

\$0.20 to \$0.30 per square foot (G)

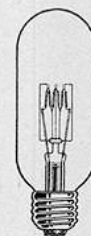
We will make up to your order smaller scenic backgrounds of the designs shown, or to your specifications; in fact we will have made any special or exclusive background designs if clear sketch or photograph is furnished.

In ordering always specify "as per illustration" or "reverse."

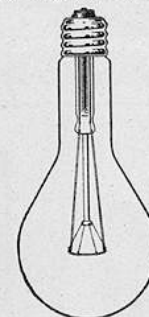
## Standard Electric Mazda Lamps

Darkroom and General Lighting

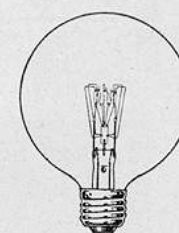
These lamps represent the highest development in incandescent lighting and are specially made for projection, studio and general lighting purposes. The filament in the projection lamps is concentrated, thus producing an intense light such as is required for enlarging and projecting when condensers are used.



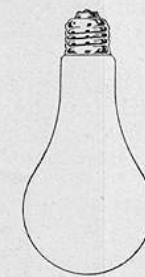
Style "T"



Style "S, P, and PS"



Style "G"



Style "P and PS" Frosted

Watts	Style	Clear		Photo Blue		Frosted	
		Cat. No.	Net	Cat. No.	Net	Cat. No.	Net
10	S14	L-400A	\$0.27				
25	S17	L-400BA	.27				
25	G18 1/2					L-402BC	\$0.40
25	P19	L-400BB	.30				
40	S19	L-400EA	.27				
40	G25					L-402EB	.50
50	PS20	L-400GE	.40	L-401GB	\$0.60	L-402GB	.40
50	P19	L-400GA	.30			L-402GA	.40
60	S21	L-400J	.32				
75	PS22	L-400K	.45	L-401K	.65	L-402K	.70
100	PS25	L-400L	.45	L-401L	.75	L-402L	.85
150	PS25	L-400M	.60	L-401M	1.00	L-402M	1.00
200	PS30	L-400N	.80	L-401N	1.30	L-402N	1.25
250	G30	L-400O	1.75				
250	T14	L-400P	1.65				
300*	PS35	L-400Q	1.25	L-401Q	1.85		
400	G30	L-400R	3.00	L-401R	4.00		
400	T20	L-400S	2.75	L-401S	3.75		
500*	G40	L-400T	3.25				
500	T20	L-400U	3.00				
500*	PS40	L-400V	2.00	L-401V	2.85		
1000*	T20	L-400W	6.50				
1000*	PS52	L-400X	3.75	L-401X	6.00		
1500*	PS52	L-400Y	5.00	L-401Y	7.25		
2000*	G48	L-400Z	13.00				
250*	PS30	L-403A	1.95	Med. concentrated C7 Filament Med. concentrated C7 Filament Med. concentrated C7 Filament with density spot 1 1/2" on end of bulb White enameled Mazda "C" 30 Volt, 20 Amp. for Superlyte			
400*	PS35	L-403B	3.00				
400*	PS35	L-403C	3.75				
200*	PS30	L-403D	.85				
600*	T20	L-403E	6.00				

These Mazda lamps have medium Edison screw bases (except those marked \* which have mogul bases) and are for 110 volt alternating or direct current.

All above lamps under net price schedule.

## MAZDA AND CARBON BULBS

Watts	Ruby Plain	Light or Dark		Light or Dark	
		Orange Plain	Ruby Frosted	Orange Frosted	
10	\$0.75	\$0.80	\$0.85	\$0.85	
20	.75	.80	.85	.85	
30	.75	.80	.85	.85	
60	.75	.80	.85	.85	

Carbon Bulbs Discount (H)

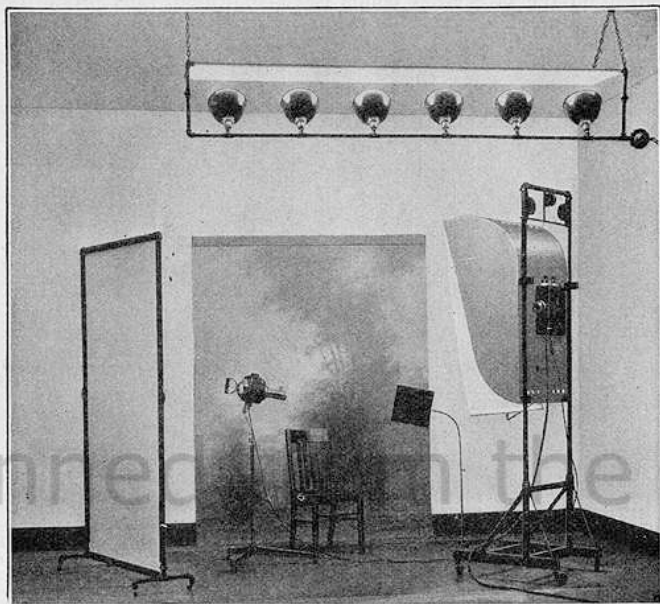
Mazda Bulbs Discount (G)



**"ORDER FROM NORMAN-WILLETS" CHICAGO**

## Halldorson Overhead Light

Applying Correct Principles of Lighting in Group Photography



Halldorson Lighting System: Spotlamp, Head Screen, Studio Electric Lamp and Overhead.

The object of this Overhead Light is to supply a highly diffused and even general illumination for use in assisting Halldorson Electric Studio Lamp, or similar side light, when taking group pictures.

The light is produced indirectly by means of six 400 Watt G-30 mazda globes directed upon overhead reflector of white cloth. It is entirely diffused, so that, without in any way interfering with the main lighting scheme, it furnishes just the illumination needed for clearing up the shadows not reached by the main light.

### SPECIFICATIONS:

It is hung from the ceiling 10 feet from the background and at a height of about 8 feet.

Length over all  $7\frac{1}{2}$  feet; size of reflector surface  $7\frac{1}{2} \times 2$  feet; white cloth reflector removable for washing; 8 inch reflectors controlled by two pull cord switches; chains for hanging that are adjustable to secure proper height; frame in black enamel finish; complete but without connecting cable which must be supplied by electrician who installs it.

Price .....\$65.00

Monthly Payment Plan or 15% Cash Discount.

**"ORDER FROM NORMAN-WILLETS" CHICAGO**

## Halldorson Electric Studio Lamp

Employing the famous photo blue Mazda globes, the light is steady, silent, intensely actinic, gives no disagreeable glare, unpleasant coloring or sputtering.

**This Lamp** supplies the full light required for a portrait or commercial studio, and makes a skylight unnecessary.

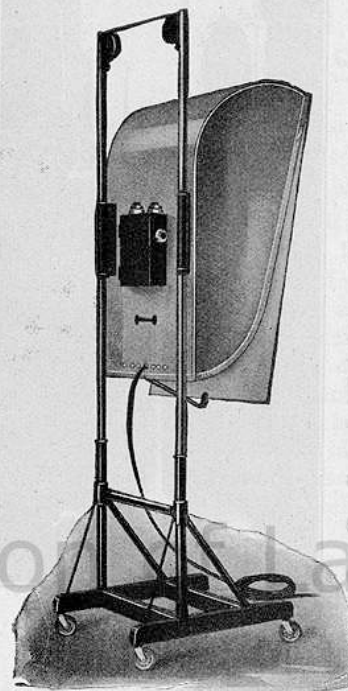
It uses four 1500 watt Mazda bulbs and develops 115,800 lumens. Each bulb is controlled by separate switch. Light is merged into one unit by diffusing curtain.

The frame construction is rigid without being unwieldy. Large casters, balanced up-and-down movement.

Cat. No. L-14A Complete without globes .....\$135.00

Cat. No. L-401Y 1500 watt photo blue globes (refer to lamp prices).

Monthly Payment Plan or 15% Cash Discount.



## Halldorson Concentrating Spotlamp

The lamp uses the 400 watt photographic blue Mazda globe and so effectively develops its light that when used with daylight or arc light it registers in the negative the same proportion that the eye sees.

It focuses the spot so that it may be made small or large, sharp or diffused, at the will of the operator. Also, a ground glass cap is supplied for extreme diffusion.

The design is attractive and the outfit is so small that it is adapted for either studio or home portraiture.

Specifications: Finished in polished nickel and black flaked enamel; globe Mazda T-20, C-3, 400 watt. Supplied with either folding or studio stand as shown by cuts.

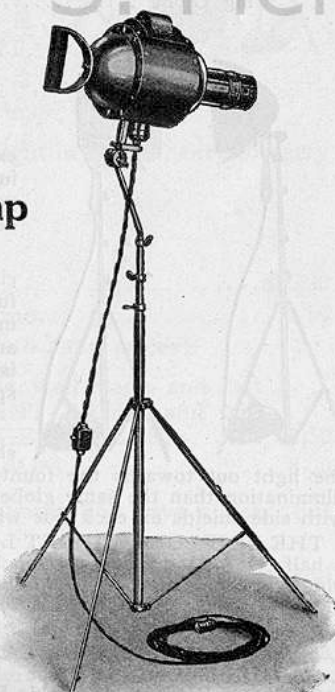
Cat. No. L-15A Complete with folding stand but without globe.....\$45.00

Cat. No. L-15B The same, but with cast-base, studio stand..... 50.00

Cat. No. L-401S 400 watt photo blue globes (refer to lamp prices).

Cat. No. L-15C Home portrait Case.. 10.00

Monthly Payment Plan or 10% Cash Discount.





## Anderson Spot Light

Compact—Practical—Efficient

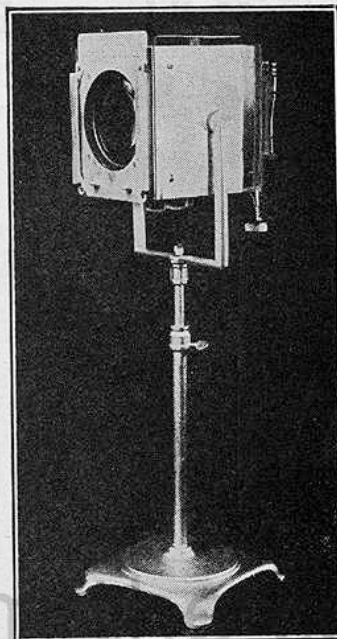
Takes the place of — SKYLIGHTS, FLASHLIGHTS, ARCLIGHTS.

Gives a steady, silent, actinic light. No sputtering or flickering. Weighs only five pounds.

Can be attached to any ordinary electric socket in the home or studio, is unique in design and has the quality of adding distinction to its surroundings.

Each Studio Spot is Nickel Plated and is fully equipped with one T-20 400 Watt Bulb; Imported Spherical Reflector; Imported Condensing Lens; 15 feet of Lamp Cord with Switch and Plug attachments; Standard which telescopes to seven feet; two metal frames with daylight blue color and diffuser.

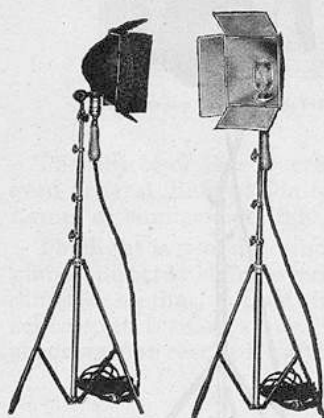
Cat. No.	Prices
L-100A With regular Base, including Globe .....	\$37.50
L-100B With Telescope Tripod, including Globe .....	42.50



## Brieloff Midget Lamp

The finest portraits can be made within a second exposure by this operation. In holding the lamp in your hand by means of a handle underneath, you throw the light on the subject where most desired.

It is ideal for commercial work. The commercial man will find the MIDGET LAMP very useful for home decorations or machine shop. Simply move the lamp around where the light is desired, and you will get the most beautiful effect which is not obtainable with any other flood light for special lighting effects.



This lamp is made of aluminum in hexagon shape, constructed so that each section will force the light out towards the front, and will produce four times the volume of illumination than the same globe if used in any other reflector. It is equipped with side shields on each side which help control the light anywhere desired.

THE BRIELOFF MIDGET LAMP is neatly finished and weighs a pound and a half. It measures 3 1/2 x 7 x 8 inches and has 20 feet of wiring and attachment plug. It can easily be carried along anywhere. If fancy lights are desired, it is practical to use MIDGET LAMP on Tripod.

Cat. No.	Prices
L-101A Complete MIDGET LAMP, less tripod.....	(C) \$10.00
L-101B 400 Watt Clear Globe .....	Net 2.75
L-101C 400 Watt Photographic Blue Globe .....	Net 3.75
L-101D Midget Tripod .....	Net 5.00

## "NORWIL" GIANT HAND LAMP

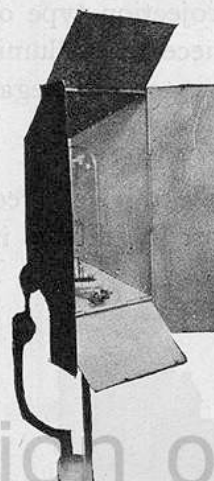
For Portrait and Commercial Photography

"The Super-Light"

It is hardly possible to realize the possibilities with this little lamp for every branch of photographic work!

THE GIANT HAND LAMP is the result of the combined ideas of a perfect light, from data gathered by several of the most prominent photographers of the country engaged in studio and home-portraiture and commercial photography.

A 1000 watt concentrated filament lamp is used with the GIANT.



The weight of the complete lamp is only 3 pounds. It measures 9 in. x 14 1/2 in. x 6 in.

THINK OF IT! Small and compact, light in weight, easy to carry with you on all jobs.

### PRICE

Cat. No.	
L- 20A GIANT HAND LAMP.....	\$25.00
L- 20B No. 2 steel, folding tripod for same.....	7.50
L-400W 1000 watt T20 clear lamp (refer to lamp prices).	
L- 20C Special strong fibre carrying case, well made, and just the size for a complete GIANT LAMP, and will also hold two complete MIDGET LAMPS.....	6.50
L-20D Special case for two GIANT LAMPS.....	8.00

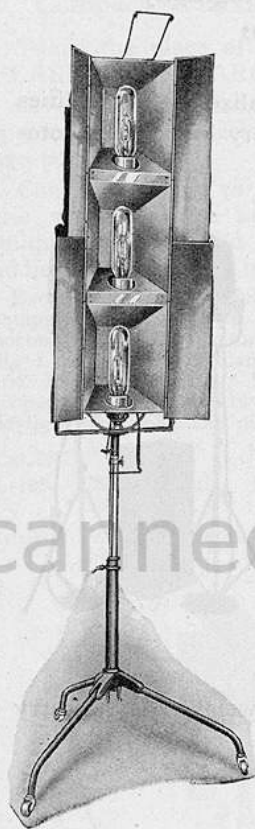
THE GIANT is your silent partner, works 365 days a year, but draws no share of the profits.

Several commercial photographers as well as home portrait and professional photographers in our territory have been using these lights for some time and the highest recommendation has been offered by such users. The lights as above stated fold very compact and a pair of these lights will handle the most difficult inside lighting.

Monthly Payment Plan or 10% Cash Discount.



## Studio "Superlyte"



A new type of light of great illumination of a specially constructed type of reflector and the special projection type of lamp will produce the necessary illumination desired to give snap to your negatives.

Entire outfit can be raised or lowered as well as tilted, and light is diffused if necessary by a silk screen.

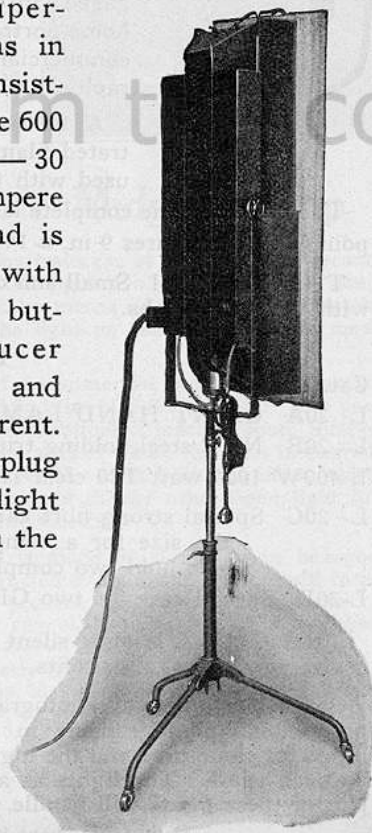
The "Superlyte" burns in series consisting of three 600 watt T-20—30 volt, 20 ampere bulbs and is furnished with a push button reducer for high and low current. Merely plug in to the light

socket and turn on the switch on the back of the light.

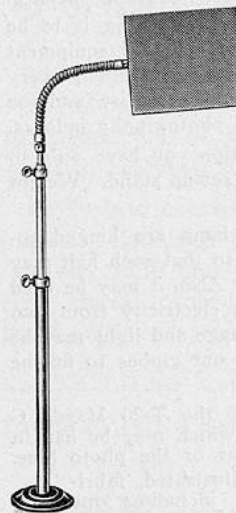
Cat. No. L-23—Complete with stand -----\$76.00

600 watt T-20—30 volt lamp  
(refer to lamp prices—Cat. No. L-403E)

Monthly Payments or 10% Cash Discount.



## Head Screen (Flexible Neck)



Here at last is a head screen that is built for convenience. The large screens are heavy and cumbersome, being relics of the old days of head rests and other ponderous equipment. Furthermore, they are designed for large skylights and can scarcely be used with modern artificial light.

The Flexible Neck Screen is small, light, and so easy to place that the operator wastes no time or energy in using it. Besides, it is entirely adequate for all head-screen purposes. The flexible neck is the ideal means of adjusting, for it does not require setting of thumb screw. Stand finished in nickel with enamel base.

Cat. No.	Price
S-10A Price complete with 12"x12" screen.....	\$ 8.50
S-10B Same with folding stand for home portraiture.....	10.00
S-10C Adjustable extra screens—consisting of 10" white round, 12" black square and 14" black square, per set.....	3.50 (C)

## Flexible Neck Lamp (Halldorson's)

This lamp is handy for various special-lighting purposes in photography and may be adjusted to any possible position desired.

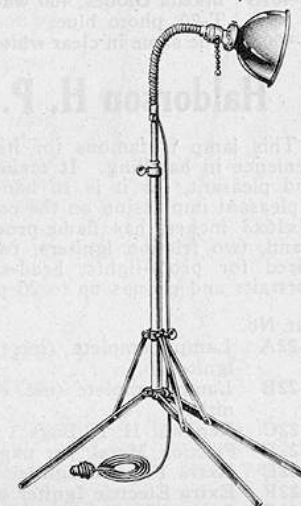
The reflector is of aluminum with velvet finish on inside and outside. It has Edison base socket so that any ordinary bulb can be used with it, but is intended to be used with 400 watt G-30 Mazda.

The flexible neck enables the operator to direct the light at will.

The lamp is mounted on nickel plated folding stand which is light and compact, though firm and durable. Reflector is removable from stand so that this part may be used as hand lamp when desired. Pull-chain switch.

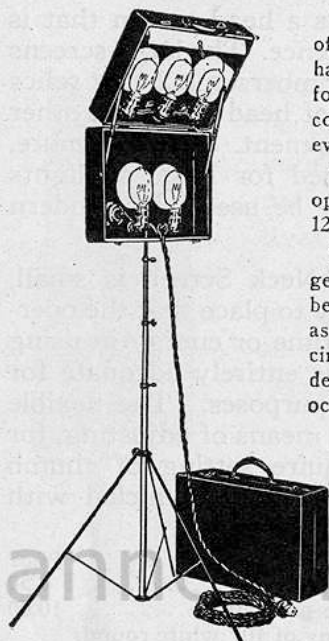
L-13A Complete (without lamp) ..	\$15.00
L-400R 400 watt, G30, white	} See Lamp Prices.
L-401R 400 watt, G30, photo blue	

Monthly Payment Plan or 10% Cash Discount.





## Halldorson Home Portrait Electric Lamp



This little giant puts electricity at the disposal of the camera wherever electric wiring is to be had. It is an indispensable piece of equipment for every studio, every home portraitist, every commercialist, every amateur portraitist, and for every one in fact who does photography indoors.

To make it ready for action you have only to open case, attach plug, and set up stand. Weight 12 pounds.

The two halves of the lamp are hinged together by separable hinges so that each half may be used as a separate unit. Also, it may be used as a single lamp taking its electricity from two circuits. Similarly, its wattage and light may be decreased by simply taking out globes to fit the occasion.

The bulbs used are the T-20 Mazda C in the 400 watt size, which may be had in either the regular clear or the photo blue.

Five Unit Lamp as illustrated, fabrikoid finished case, including one stand with canvas cover, 15 foot cord with plug, without globes....\$50.00

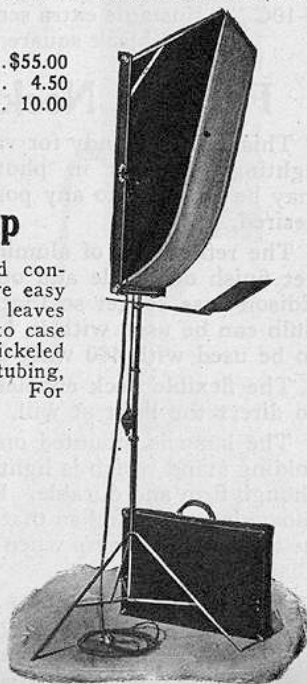
Same as above but with case of aluminum and pull chain socket.....\$60.00

- Cat. No.  
L- 21A Five Unit Fabrikoid, pull chain sockets..\$55.00  
L- 21B Extra cord with plug and half connector.. 4.50  
L- 21C Extra stand ..... 10.00  
L-401S Mazda Globes, 400 watt } Refer to  
T-20, photo blue. } Lamp prices  
L-400S The same in clear white.

## Halldorson H. P. Flash Lamp

This lamp is famous for its compactness and convenience in handling. It makes home portraiture easy and pleasant, for it is so handy to use and it leaves a pleasant impression on the customer. Folds into case 24x16x3 inches, has flame-proof bag, folding nicked stand, two friction igniters, two-way bulb and tubing, wired for proof-lights, head-screen attachment. For portraits and groups up to 20 people.

- Cat. No.  
L-22A Lamp complete (inc. 2 friction igniters) .....\$45.00  
L-22B Lamp complete (inc. electric ignition) ..... 55.00  
L-22C Renewal H. P. Bags..... 5.00  
L-22D Friction Metal, per pkg..... .25  
L-22E Extra Friction Igniter only..... 7.00  
L-22F Extra Electric Igniter only..... 25.00  
L-22G Igniter Socket for fitting same to other lamps ..... .50  
Monthly Payment Plan or 10% Cash Discount.



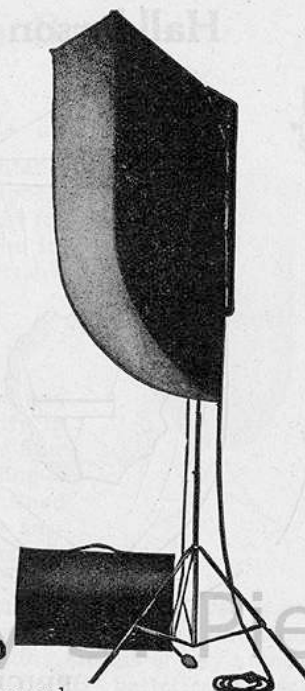
## Halldorson Giant Portrait Flash Lamp

This lamp is intended for general use, both for portraiture and for groups up to 100 people. It is large in capacity but small in carrying size.

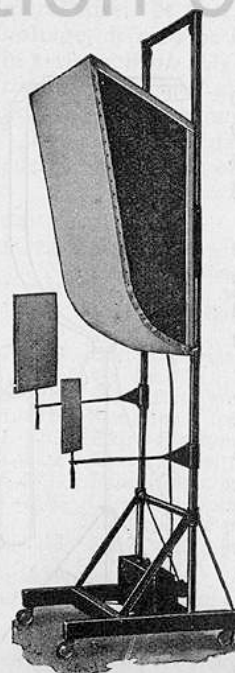
Folds into canvas portfolio 27x16x2½ inches. Equipped with friction igniter, two-way bulb and tubing, folding nicked stand, proof-light feature, flame-proof bag.

Cat. No. L-11A Complete .....\$55.00

Cat. No. L-11B Renewal bag only 12.00



## Halldorson Studio Flash Lamp



Has the balanced up-and-down movement, the repeating electric ignition system, the light control by means of proof-lights and double head screen, and is attractive and of rigid construction. Ignition by jump-spark system on alternating current, wired for proof lights.

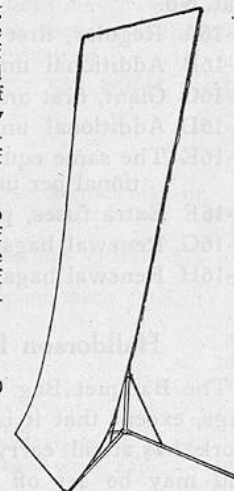
The outfit consists of lamp fully equipped, with 20 feet of main line wire and plug, one two-way bulb, and ten feet of rubber tubing. Size of sky-light cloth, 36x56 inches.

- Cat. No.  
L-12A Complete.....\$150.00

## Halldorson Home Portrait Reflector

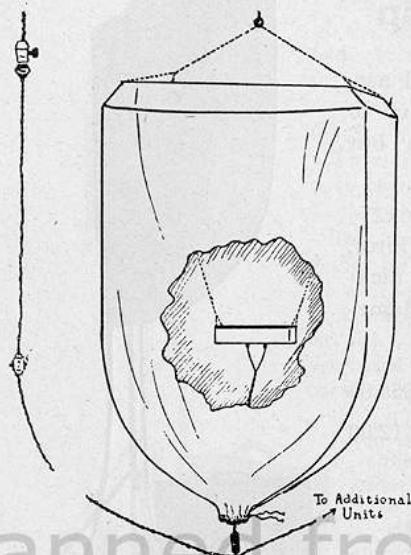
This reflector is indispensable to the home portraitist for balancing up the light on the subject. It is simple in construction, and folds into small package. Folding nicked stand.

- Size of reflecting surface 66x40 inches.  
Cat. No. R-10A Complete.....\$10.00  
Monthly Payment Plan or 10% Cash Discount.





## Halldorson Series Banquet Bags



These bags are used for photographing banquets or audiences in halls or dining rooms, and may be hung from suitable wall brackets or balconies.

Additional units may be purchased as needed. Each unit is supplied with 25 feet of main line wire, so that bags may be spaced 25 feet apart and 25 feet from electric outlet. Each bag is separable from main line cord by means of connector.

Made in two sizes, regular 32x32x65 inches; giant, 40x40x72 inches.

### PRICES

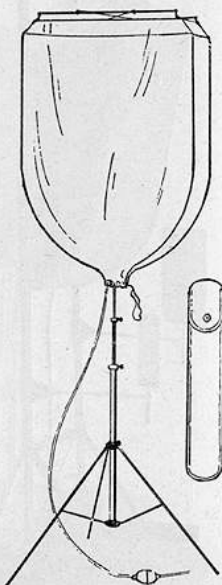
Cat. No.	
L-16A	Regular, first unit.....\$25.00
L-16B	Additional units..... 22.50
L-16C	Giant, first unit..... 27.50
L-16D	Additional units..... 25.00
L-16E	The same equipped with stands, additional per unit..... 7.50
L-16F	Extra fuses, per dozen..... .20
L-16G	Renewal bags, regular..... 9.50
L-16H	Renewal bags, giant size..... 12.00

### Halldorson Banquet Bag Outfit

The Banquet Bag Outfit is similar to the above bags, except that it is adapted only for single-unit work, has stand, carrying case and friction igniter; and may be set off simultaneously with camera shutter off of two-way bulb.

Cat. No.	
L-16J	Regular, 32x32x65 inches.....\$30.00
L-16K	Giant size, 40x40x72 inches..... 32.50

Monthly Payment Plan or 10% Cash Discount.



## Portable Flash Bags (VICTOR)

for  
Groups, Weddings, Banquets and Interiors

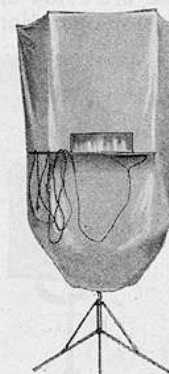
There are many opportunities for profitable photographic work which many photographers neglect because of the lack of proper daylight for making such negatives at the time or in the location these opportunities occur. Victor portable flash bags will solve this problem.

### FEATURES:

Smoke entirely confined—flash pan loaded and reloaded from exterior of the bag—simplicity in construction and light weight—held open by four arms inside of bag—perfect safety in loading— $\frac{3}{8}$  ounce of Victor flash powder may be burned without injury to the bag—bags may be suspended from the top or used with the telescopic stand.

You have a choice of two styles of ignition. The electric fuse system, which is the most satisfactory, ignites the powder by burning out a small metal fuse. It operates on any electric lighting circuit of any standard voltage, or may be fired by two 22½ volt radio "B" batteries connected in series. *With this system any desired number of bags may be connected together and fired at exactly the same instant.* With these it is therefore possible to illuminate as large a space as may be desired.

The paper percussion cap system is designed for use where electric current cannot be obtained.



### Prices

Cat. No.	
L-22A	Bag and one flash-pan complete (for hanging), with either cap or electric igniter, without standard or carrying case, weight 8 lbs.....\$24.00
L-22B	Same outfit, with electric igniter..... 24.00
L-22C	Telescopic Supporting Standard complete as described (weight 5¼ lbs.)..... 10.00
L-22D	Carrying Case, of strong fibre, to hold one complete outfit (weight 4¾ lbs.)..... 6.00
L-22E	Same for 2 complete outfits (weight 6½ lbs.)..... 8.00
L-22F	Same for 3 complete outfits (weight 8 lbs.)..... 10.00
L-22G	Extra Flash-pans, either cap or electric, each..... 7.00
L-22H	Extra Fuses, per package of 50..... .50
L-22J	Paper Caps, per box of 50..... .10
L-22K	Complete Outfit, consisting of bag and one flash-pan, standard, carrying case, and package of electric fuses or five boxes of paper caps.... 40.00
L-22M	Same with 5 boxes of caps..... 40.00

Always specify fully and exactly what equipment is wanted, and whether Cap or Electric System of ignition is wanted.

When two or more Bags with Electric ignition are ordered, state whether they are wanted for operation separately as single units, or for operation together in series, so that we may send proper connections.

10% Cash Discount.



**"ORDER FROM NORMAN-WILLETS" CHICAGO**

## The New Halldorson Arc Lamp

**A Twin Arc for Motion-Picture, Commercial, and Home Portrait Photography**

The arc folds directly into its own carrying case so that it is made ready for operation by merely opening the case and setting it upon the stand. All loose parts except the stand pack into this case. The stand folds and is packed into small canvas case. No other similar equipment on the market has this unusually convenient folding feature.



The case being of wood, is insulated from the heat of the arc by means of transite lining and is covered on the outside with attractive leather finished covering that gives the packed lamp an elegant appearance which matches in quality the best traveling luggage.

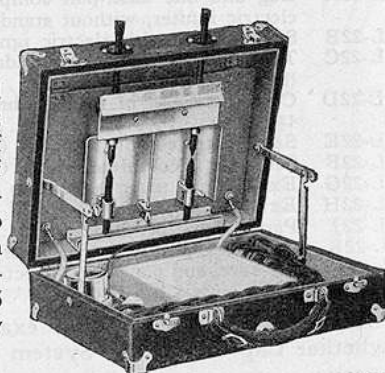
### Ground-Glass Diffuser and Spark Shield

Another important feature is the heat-resisting, ground-glass diffuser and spark shield. By means of this shield the light is perfectly diffused and the bare arcs are completely shielded from view both from front and side. For undiffused light, the shield can be quickly removed.

The arc burns with a steady blue-white light on either 10 or 20 amperes of current and is semi-automatic in action. By pulling down on the cord once every four or five minutes it will burn without interruption.

### SPECIFICATIONS

Operates on 10 and 20 amperes; pull cord switch for changing amperage; 2 arcs in series; rheostat in lower half of case; 110 volt A. C. or D. C.; size of case, 5x11½x14½ inches; weight complete with stand 22 lbs.; uses Photo White Flame Cored carbons ¾-inch diameter x 12 inches long; lower carbons same diameter, 4 inches long; 15 feet of cord with plug for ordinary socket.



Cat. No. L-10A Lamp Complete .....\$65.00  
Cat. No. C-90B 10x305MM White Flame Cored Carbons (for prices refer to page 50).

Monthly Payment Plan or 10% Cash Discount.

**"ORDER FROM NORMAN-WILLETS" CHICAGO**

## Wohl Duplex Junior Lamp

You have always needed a compact, serviceable twin arc for home portraiture or to take out on some commercial job. The Wohl "Duplex Junior" Lamp answers all your requirements for a portable light.



**For  
Commercial  
and  
Home  
Portraiture**

**Can be  
Connected  
Anywhere**

### SPECIFICATIONS

From 10 to 20 amperes. 110 or 120 volts, A-C or D-C. Carbons ¾ inch diameter. Height fully extended 7½ feet. Weight complete 28 pounds. Stand: Very strong, built for service.

Cat. No.

L-24A Complete with carrying case, stand, diffusing cloth, cable plugs, etc., ready for action, only.....\$65.00

L-24B Carbons, 10x305MM W. F. for above only (imported), per dozen, net \$1.50; per hundred, net..... 9.50

Monthly Payment Plan or 10% Cash Discount.



## Victor Flash Powder

Is unequalled in Actinic Power and Cleanliness. Always Uniform in Speed and Actinic Quality. Does Not Deteriorate with Age.

Victor Flash Powder supplies the necessary exposure-light for making every kind of negative, from portraits up to the largest auditoriums.

To meet all requirements it is made in three grades, viz: Soft, Normal and Extra Fast.

The NORMAL Grade (Red Label) is the most suitable for general work, and is by far the most popular brand.

The SOFT Grade (Blue Label) is slightly higher in illuminating quality and gives practically no smoke or report.

The EXTRA FAST Grade (Yellow Label) has greater speed than either of the other brands.

The Normal Grade is always furnished unless the other grades are specified. Each bottle is enclosed in the fibre can required by the new I. C. C. Regulations. Shipment ONLY by freight or express.



### PRICES

1/2 ounce, net weight, per bottle.....	\$0.55
1 ounce, net weight, per bottle.....	.90
2 ounces, net weight, per bottle.....	1.70
All three sizes put up twelve in a carton.	

### DISCOUNTS

Quantities	1/2 oz. bot.	1 oz. bot.	2 oz. bot.
1 to 2 bottles	30%	20%	15%
3 to 5	30%	25%	20%
6 to 11	30%	30%	25%
12 to 23	30%	30%	33 1/3%
24 up	33 1/3%	33 1/3%	33 1/3%-5%

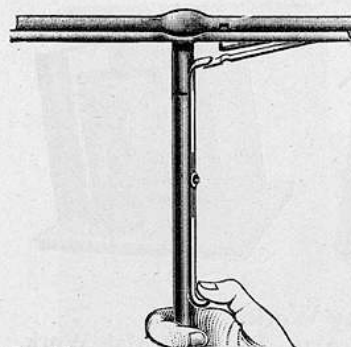
## Magnesium Metal

Meteor "impalpable" powdered 200 mesh, per lb..... Net \$3.40

## Carbons

Cat. No.	Size	Net Dozen	Net 100 Lots
C-90A	1/2x12 National White Flame Cored.....	\$1.80	\$11.50
C-90B	10x305 M/M National White Flame Cored.	1.50	9.50
C-90C	1/2x4 National White Flame Cored.....	.90	5.75
C-90D	10 M/Mx4 National White Flame Cored...	.70	4.40
C-90E	5/16x6 National White Flame Cored.....	.70	4.60
C-90F	1/2x12 National Cored 2 Flame (neutral cored)	1.05	6.75
C-90G	1/2x12 Cored Enclosed Arc Carbons.....	1.65	10.50
C-90H	1/2x12 Solid Enclosed Arc Carbons.....	1.45	9.25
C-90J	3/8x12 Solid Enclosed Arc Carbons.....	1.15	7.50
C-90K	3/8x12 Cored Enclosed Arc Carbons.....	1.35	8.60

## The Spred-Lite Flash Lamp



The Spred-Lite unites all the simplest principles—the paper cap to produce the spark that sets off the powder, the spring-actuated trigger to set off the cap, the long, broad tin pan to hold the powder and a handle to hold the lamp at a safe distance—it unites these into a lamp that, because of its very simplicity, can be used by any careful person, WITH ABSOLUTE SAFETY, and the highest results for Speed and Volume of Light.

Cat. No.	Price
L-102A—No. 1 Spred-Lite, size of pan 1 3/4x12 in.....	\$1.50
L-102B—No. 2 Spred-Lite, size of pan 2 1/2x15 1/2 in.....	2.50
L-102C—No. 5 Spred-Lite, size of pan 3 x19 in.....	4.00
L-102D—No. 6 Spred-Lite, size of pan 2 1/2x24 in.....	7.00
L-102P Paper Caps, per box.....	.10 (F)

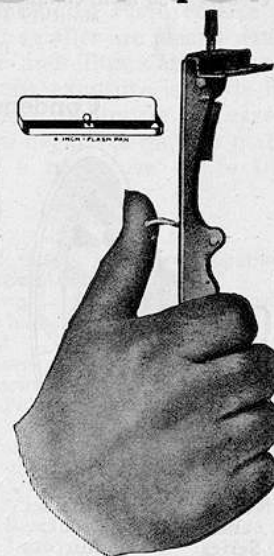
Note: No. L-102D is a heavy professional size: pan in three sections with 2 reflector holders.

## Caywood Automatic Flash Lamps

The Caywood Automatic Flash Lamp puts safety in flashlight making. There is nothing complicated about it. Simply put in a few grains of Flashlight powder, snap the trigger and the flash is made. No caps, matches or fuses are required. The powder is ignited by a sure firing sparking metal.

The Caywood Automatic Flash Lamp has been designed for making flashlights the safest and easiest way. Every care has been taken in making these lamps. No solder used. Every part firmly riveted. It is the best automatic flash lamp made. Caywood lamps are successfully used by the amateur, commercial and press Photographer. They are the choice of the discriminating buyer. The Caywood Regular and Extension Lamps are equipped with a detachable four inch pan so that these models become more compact and easy to pocket.

The Regular Hand Lamp is seven and one-half inches long. It also has a Karatol hand protector, giving added protection.



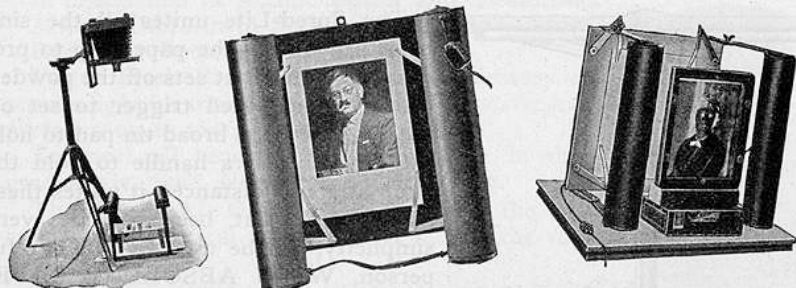
Caywood Regular Hand Lamp

### PRICES

Cat. No. L-202 Regular Hand Lamp.....	\$1.75
Cat. No. L-203 Extension Folding Lamp.....	2.25
Cat. No. L-204 Commercial Lamp with long extension.....	4.50 (F)



## Peerless Copylite



### Used in General Copy Work

For making negatives of objects of Arts, Tools, Dental Work, Jewelry, etc., by simply using a tilting top and placing copylite on the table or floor.

For making negatives of Photographs.

For making negatives or positives, or Lantern Slides from negatives direct, by simply putting white blotter on copy board and placing negative in printing frame.

Cat. No.	Copyboard	Price
C-904A	18 inch, complete with 4 lights	\$25.00
C-904B	30 inch, complete with 6 lights	65.00

Monthly Payment Plan or 15% Cash Discount.

## Parallax

### Condensers for Enlarging Machines

The Parallax is a complete enlarging condenser, mounted with adjustable lamp holder and wired with socket for incandescent lamps. No ground glass or diffusion screen is necessary so that you get the full benefit of all the light.

Parallax is made in two series:

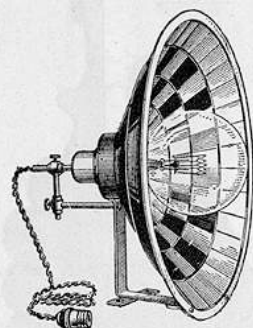
Series C: All the mirrors are silvered.

Series E: White glasses alternate with mirrors in the central rows which equalize the light over the entire surface projected on.

The Parallax can be used in numerous ways, and is ideal for making large photographs from small negatives. It has also been found excellent for illumination for copying work.

Mogul sockets are furnished for reflectors listed for lamps of 300 watts or over.

The number of the reflector is also the diameter: i. e., 15C is 15" in diameter.



Number and Series	Number of Mirrors	Largest Negative Covered	Largest Nitro Lamp	Price Without Lamp
12E	74	5x7	300 watts	\$15.00
15E	108	7x9	500 watts	30.00
19E	103	8x10	1000 watts	40.00
9C	30	4x5	200 watts	8.00
11C	30	5x7	200 watts	10.00
15C	36	7x9	300 watts	18.00
20D	7	Illuminator	1000 watts	30.00 (B)

## The B & L Projection Printer

### Border Tinting—Enlarging—Reducing and Copying

For Fast Chloride or Bromide Paper  
Now Made in Two Sizes, 5x7 and 8x10

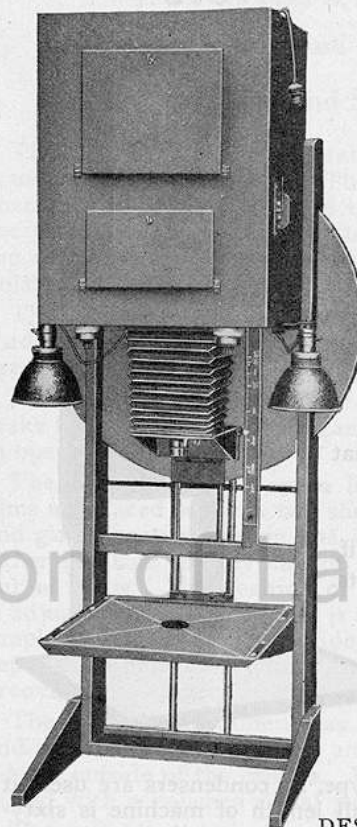
The B & L Projection Printers are the only self-focusing printers that will enlarge, reduce copy and make lantern slides without disengaging any parts.

Simply turn the disc to size of picture or negative required, ranging in size from the smallest reduction to the greatest enlargement.

Copying is done on these Printers by the two following methods:

One method is by placing prints to be copied on the easel and illuminating them by means of the two outside lamps; by this method negatives size of plate holder or smaller can be made from prints up to size of easel, the exposure being made on dry plate or film within the machine.

The other method. Pictures size of plate holder or smaller are placed within the printer and illuminated by reflected light; the exposure is made by placing dry plate or film on the easel; by this method negatives may be made in sizes from a miniature up to full size of easel.



### DESCRIPTION

Size 5x7—Outside dimensions 22x28x62 inches and makes prints or negatives ranging in size from 2 1/2 x 3 1/2 to 16x20 from 5x7 negatives or prints.

The printing illumination is two 500-W Mazda lamps, or one Cooper-Hewitt M-Tube, has brackets for the tube and receptacles for bulbs and is wired complete for both. The Cooper-Hewitt tubes are recommended.

Size 8x10—Outside dimensions 24x30x60 inches, makes prints or negatives ranging in size from 4x5 to 18x22 from 8x10 negatives or prints.

The printing illumination is one Cooper-Hewitt M-Tube. The Printer is wired and fitted for this outfit only.

These Printers will sit on the floor, bench, shelf or may be fastened to the wall.

Shipped complete in one crate, ready to operate as soon as lamps are attached.

Cat. No.	Price
E-100A—5x 7 Without Lamps, but with Special F4.5 Lens	\$225.00
E-100B—8x10 Without Lamps, but with Special F4.5 Lens	325.00

Monthly Payment Plan or 10% Cash Discount.

### EOORDERTINTING MASKS (For B & L Enlarger ONLY)

Cat. No.	Price	Cat. No.	Price
E-100A1—5x7 Single tint	\$0.75	E-100B1—8x10 Single tint	\$1.00
E-100A2—5x7 Two tints	1.00	E-100B2—8x10 Two tints	1.50
E-100A3—5x7 Three tints	1.50	E-100B3—8x10 Three tints	2.00

Cooper-Hewitt M-Tubes—A. C. \$56.00; D. C. \$50.00

(A)



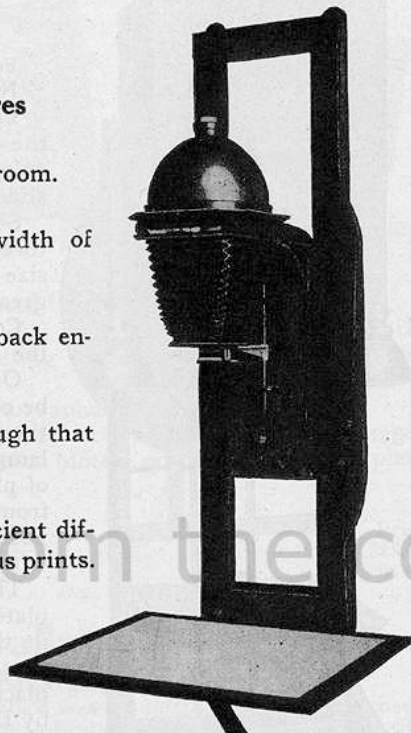
## The Callier Studio Enlarger

Patented July 25, 1922

### Has Many Good Features

- Can be installed in small dark room.
- Occupies only 32 inches in width of wall space.
- Table for holding paper folds back entirely out of the way.
- The camera slides up far enough that you can easily walk under it.
- Now supplied with simple, efficient diffusing screen for making soft focus prints.

### Just the Thing to Speed Up Work



The illumination is of the diffused type, no condensers are used, it projects to about six diameters, the full length of machine is sixty-eight inches and can be used in a low ceilinged room if necessary.

Simplicity and efficiency is maintained throughout, adjusting the self-focusing mechanism is as easy and simple as focusing an ordinary camera.

### EASY TO OPERATE—ALWAYS IN FOCUS TAKES NO FLOOR SPACE

Board for holding paper 26 in. x 32 in. Screwed to wall and is out of the way. Camera is balanced and easily moved up and down for different size pictures and it **REMAINS IN FOCUS**.

This enlarger is supplied complete with Special Wollensak Series II, Velostigmat f : 4.5 lens, 250 or 400-Watt Lamp, Connecting Cord and Foot Switch, Ruby Glass that swings in place to permit placing paper while light is on, two metal sheets for holding paper on copy table which accommodate the 8x10, 7x11 and 11x14 sizes.

Enlarges from 5x7 and smaller negatives.

Cat. No. E-101A Complete.....\$225.00

Monthly Payment Plan or 10% Cash Discount

## KORONA ENLARGER

and REDUCER

For 5x7 Negatives and Smaller—Vertical or Horizontal

This is a fine piece of apparatus built to the standard of Korona quality. The woodwork is cherry with walnut finish and the metal parts are brass, nickel plated with the exception of the cast iron supporting standards which are finished with black lacquer.

The Korona Enlarger is strong, rigid and made to operate quickly and smoothly with precision.

It has some new and exclusive features which make it convenient to handle and a time saver in operation.

The **negative carrier opens like a book**, films are placed between two sheets of glass and glass negatives rest in kits, springs hold either in place so they cannot shift or get out of focus. The position of the camera is adjustable on the base and it is locked by simple clamps to V shape guide rails. It is kept in alignment by a foot traveling in a groove. The camera is focused by a fine rack and pinion adjustment.

The front of the camera has a detachable lens board  $5\frac{1}{4} \times 5\frac{1}{4}$  inches and back of the lens board is an orange glass **exposing cap operated by a lever outside of the camera**. Brilliant and uniform illumination is obtained with a polished metal parabolic reflector.

The metal supporting arms are properly designed to be strong and rigid with no excess weight and the shipping weight is much lighter than other enlargers of the same size.

The Korona Enlarger may be used in either a **vertical or horizontal** position.

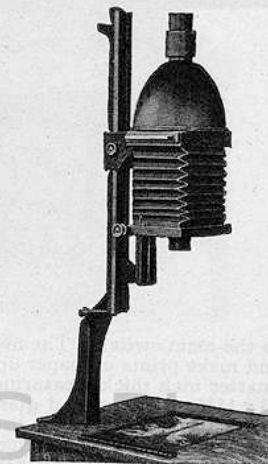
### SPECIFICATIONS

Length including reflector.....	58"
Focal capacity of camera.....	$3\frac{3}{4}$ " to $15\frac{1}{2}$ "
Greatest distance negative to table.....	$44\frac{1}{2}$ "
Shortest distance lens board to table.....	$12\frac{1}{2}$ "
Size of lens board.....	$5\frac{1}{4} \times 5\frac{1}{4}$ "

A lens of  $6\frac{1}{2}$ " focal length will reduce a 5x7 negative to  $3\frac{1}{4} \times 5$ " and enlarge to 20x24. A lens of  $7\frac{1}{2}$ " focal length will reduce a 5x7 negative to  $4 \times 5\frac{1}{2}$ " and enlarge to  $18 \times 24$ ". Illumination: 75 to 150 Watt Lamps may be used.

Cat. No.	Price
E-102A 5x7 Korona Projection Enlarger and Reducer without Lamp.....	\$30.00
E-102B $6\frac{1}{2}$ " Anastigmat Lens F.6.3 in barrel, with iris diaphragm.....	18.00
E-102C $5\frac{1}{4} \times 5\frac{1}{4}$ Lens Boards .....	.75
L-402L 100 watt Lamp, frosted (refer to Lamp price list).	
Net weight.....	16 lbs.
Shipping weight.....	25 lbs.

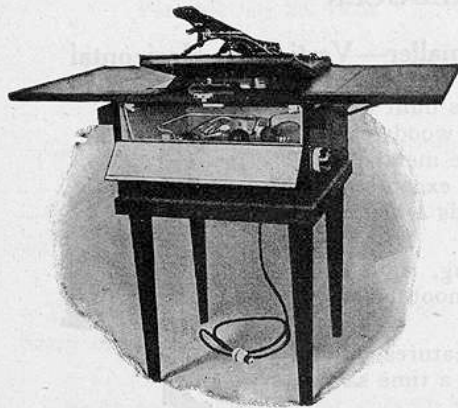
Monthly Payment Plan or 10% Cash Discount.





## Printing Machines

### Ansco 11x14 Professional



The Ansco 11x14 Printer, as the illustration shows, is equipped with side extensions which are easily raised to position or may be lowered to economize space. The system of spring tension is such as to always insure contact of the paper with the negative and give an equal pressure to all parts of the negative. This is much assisted by the special high-grade piano felt of exceptional thickness with which the under side of the lift is covered. The legs are removable for shipping.

One of the unique features of this useful printing machine is the special side switch, the object of which is to turn on the white light when required for adjusting the negative, or fixing the mask, and which can be used should any accident occur

to the main switch. The machine will take any negative up to and including 11x14, and make prints on paper up to 14 x 17 in size. It is supplied with plate glass one-quarter inch thick measuring  $13\frac{1}{2} \times 15\frac{3}{4}$ , which gives a free light opening of about  $13 \times 15\frac{1}{4}$ . One ground glass is also supplied.

Because of danger of breakage in transportation, the lamps are not generally supplied and are not included in the price of the machine, as they may be purchased locally from any dealer in electrical supplies.

In operation the red light is burning while the paper is being adjusted to the negative. When the pressure bar is brought down the red light goes out and the white light comes on; when the pressure bar is released the white light goes out and the red light comes on.

Cat. No. P-13A Complete, except Lamps .....\$70.00  
Cat. No. L-400L Lamps, 100 watt, 115 volt (For price refer to Lamp page).

### Ansco 8 x 10 Professional

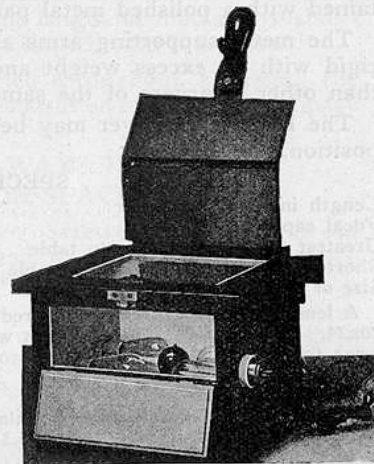
Will accomplish all that is claimed for the 11 x 14 Printing Machine except that it is a smaller size, being limited to an 8 x 10 negative. Since it is designed to be set upon a table it is not provided with legs, nor has it the side extensions.

It is equipped with four forty-watt Mazda lamps placed horizontally and a ruby lamp, all of which are included in the price.

The machine is well ventilated to take care of the heat and is built of seasoned lumber, mahogany finish. It is furnished with a quarter-inch plate glass, measuring  $8\frac{1}{2} \times 10\frac{1}{2}$ , which gives a full free light opening of 8 x 10. One ground glass is also supplied. The attachment cord which comes with the machine enables it to be connected to an ordinary electric-light socket. The machine is furnished complete with lamps, ready for use.

Cat. No. P-14A Complete...\$35.00

Monthly Payment Plan or 10% Cash Discount.



## The Pa-kO De Luxe Professional Printer

The highest priced professional printer on the market.

Worth every cent of its cost.

This remarkable machine combines with the usual requisites of a professional printer several innovational features, each of which has demonstrated its practical and artistic value to a host of enthusiastic purchasers.

**Positive Contact**—An unusual combination of platen, piano felt, presser bar and platen springs gives well balanced, non-creeping no-air-pocket printing head which eliminates contact trouble.

**Easy Operation**—Although the platen springs distribute more than 30 pounds of pressure over the platen, the Easy Lock Lever, which at one and the same time completes the pressure stroke and switches on the printing lights, enables the operator to achieve this remarkable contact pressure with two fingers.

**Adjustment and Registration of Vignetting Screen**—An adjustment knob at the left of the printer raises or lowers the screen for just the proper diffusion. When chalking, guides on the printing head hold the diffusing screen on top of the negative in exact registration with its operating position in the adjustable frame, so that it is possible to lift the raisable head, remove the screen from its frame, place it on the negative, turn on the printing lights and prepare the vignette from above while looking through the negative.

**Additional Screens**—Two additional ground glass screens, each sliding in its own holder, are instantly available when it is necessary to restrain the printing light for thin negatives.

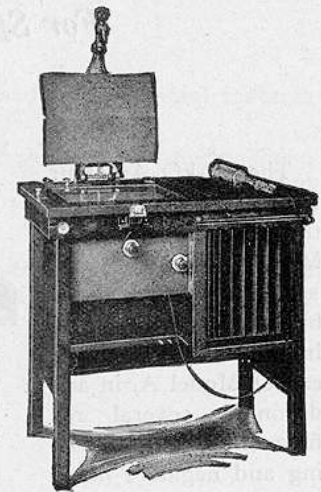
**Local Printing**—By means of a special spot light and the raisable printing head, balanced prints from uneven negatives are made possible without tedious vignetting.

The cabinet is exceptionally well made and is finished in a beautiful water-proofed mahogany. At the right side of the cabinet is a set of divided compartments for the vertical filing of negatives and masks. The concealed self-locking switch gives an unobstructed working top, allowing for the making of wide border prints from 11"x14" negatives. Every working part is made of metal, insuring long life and uniformity of operation.

Floor space required—36"x21".

Cat. No. P-12A Complete, except lamps.....\$165.00

Monthly Payment Plan or 10% Cash Discount.

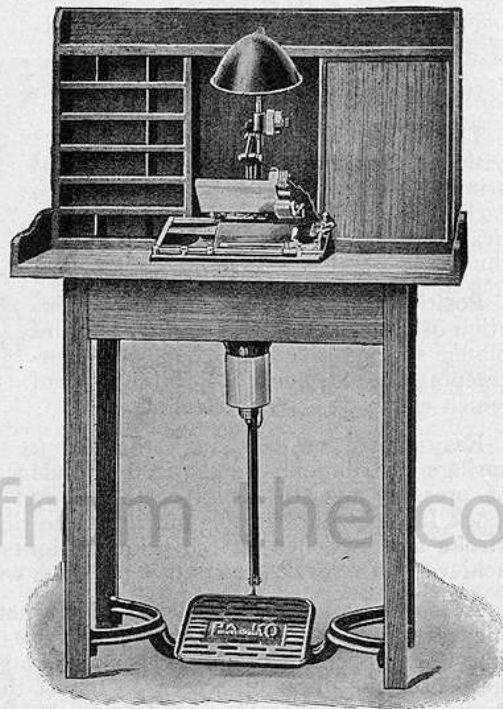




## Pa-kO Model B Printer

*For Speed and Results*

The Pa-kO Amateur Printer needs very little introduction. In the Model B we offer the same features and built-in values as were incorporated in the earlier Model A, in addition to several refinements in the masking and negative holding devices to provide for the more accurate margins and registration now required for pretrimming, and for the making of no-margin prints.



The Model B Printer embodies the following aids for rapid, accurate work:

**Foot treadle operation**, leaving both hands free for the manipulation of negatives and paper.

**Individual table**, easily movable.

**Paper cabinet**, with compartments for 18 sizes and grades of paper and for printed and unprinted orders.

**Universal masks**, adjustable four ways, to every size and proportion.

**Numbering device**, for imprinting the order number on the back of every picture.

**Divided platen**, which grips and holds paper after hand is re-

moved until contact pressure is completed.

**Register guide**, an instantaneous combination of negative holder and paper guide.

**Positive contact**—no fuzzy prints.

**Perfect lighting**—all the light you want for placing, judging and printing, distributed where you need it.

The Model B Printer is handsomely finished and is built to last. All parts are interchangeable. Floor space required, 33"x24".

Cat. No. P-10B Complete with table and cabinet, but without lamps ..... **\$100.00**

Monthly Payment Plan or 10% Cash Discount

## Pako Portrait Printer

No. 2

This smaller model Portrait Printer embodies the general features of the De Luxe model.

With the exception of screen and paper guides the printing head is identical with the De Luxe model. The mask file is omitted and additional working surface provided in the two 13-inch shelves which are hinged to the sides of the cabinet.

Platen exerts ample pressure to give positive contact—Easylock Platen Lever multiplies simple pressure of two fingers into many pounds of pressure on the platen.



**PRINTING OPENING:** 12 x 15, fitted with heavy, polished Mirror Plate Glass.

**PLATEN:** Divided; faced with heavy Cushion Felt of high quality.

**CABINET:** All metal, finished in dull black. Two 13-inch working shelves of metal are hinged to sides of the cabinet, giving a working area of 21 x 48 inches. Printing head is of birch in polished mahogany finish—the same as the De Luxe model.

**SIZE:** With shelves down the Number 2 is 22 inches long, 21 inches wide and 36½ inches high.

Cat. No. P-11A Shipped completely assembled, without lamps. \$90.00

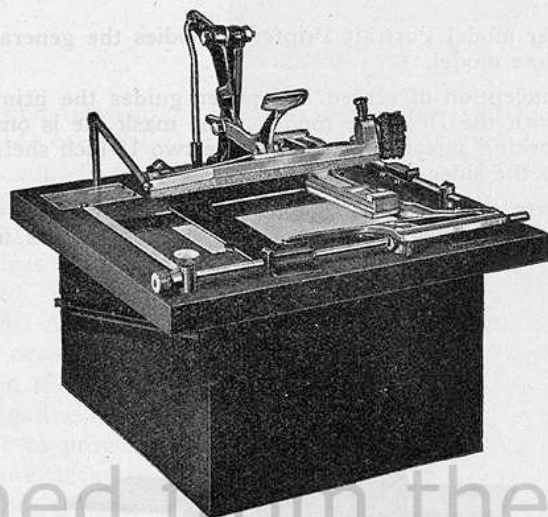
Cat. No. P-11B Spotlight assembly, complete with cord and plug, for use with above..... 10.00

Monthly Payment Plan or 10% Cash Discount.



## Pa-kO Junior Printer

The Little Brother of the Model B



With the exception of foot treadle operation, table and paper cabinet the Pa-kO Junior Printer is equipped with all the advantages of the large model. The platens, masks, register guide and numbering device are exactly the same as on the Model B Printer. The printing frame is of wood instead of cast metal, and the light box is of different type and construction, but the Junior Printer, with the exception of speed attainable, will duplicate every performance of its larger brother.

The Pa-kO Junior is equipped with side supports for holding the printer in a table at the most convenient angle for easy, rapid printing.

Cat. No. P-16A Complete (without lamps).....\$55.00  
Monthly Payment Plan or 10% Cash Discount.

## Anso Amateur Printing Machine

Makes printing sure and simple in any room with electric current. Takes negatives up to 5x7, has ruby glow, and uses a standard 40-watt lamp (not included) as the printing light. Lower window provides orange light for developing prints, and ruby safelight for developing plates and films.

Cat. No. P-15A, with cord and socket.....\$10.00  
(E)



## PAKO-DOPER

The Human Developer



The PAKO-DOPER, a self-contained machine for developing amateur prints in commercial volume, has three important characteristics:

1. Except for temperature control it is entirely automatic from feeding the prints to removing them.
2. Capacity in excess of the work of two FAST printers—more than 1,000 prints hourly.
3. Raises quality of work, and reduces waste, make-overs, and labor cost.

Feed table permits feeding by as many as three printers. Prints are placed on moving belts—no arranging necessary.

Prints are automatically submerged upon reaching Developer Tray. Prints are moved forward in solution, bringing them directly in front of operator. Being face up their progress can instantly be noted.

Prints, as fast as they are developed, are removed by operator and tossed into Acid Short Stop Rocker.

Thermometer shows temperature of solution at all times, and temperature is controlled by operator; ice box and cooling pan lower the temperature, and electric heater raises the temperature as needed.

Solution drains to sewer when valve is opened. Amber lamps provide adequate working light.

Users of this machine say that it is distinctly economical to any finisher employing two or more printers. Tested savings equal the cost of the machine within a year of operation.

Operates on either alternating or direct current.

Cat. No. D-203 Price.....\$750.00

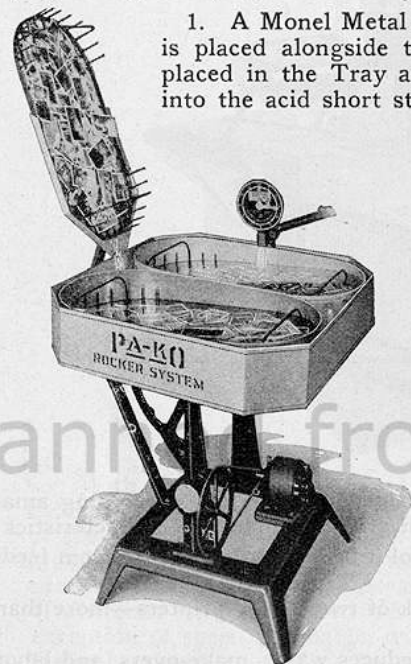
More detailed description will be sent gladly on request.



## Pa-kO Rocker System

### Fixing and Washing

A complete PRINT HANDLING SYSTEM, beginning with the Acid Short Stop and carrying right through to the draining of prints preparatory to drying them.



1. A Monel Metal Tray containing an acid short stop is placed alongside the developer. A Print Carrier is placed in the Tray and prints pass from the developer into the acid short stop.

2. When loaded this Carrier is transferred to the fixing bath and in it a hundred or more prints are handled as easily as half a dozen.

3. Then the Time Indicator is set to indicate the length of the fixing period.

4. At the expiration of this period the Carrier is transferred to the Washing Bath and another Carrier of prints comes from the short stop to the Fixing Bath.

5. The gentle rocking motion separates each and every print and insures proper fixation. Every 3 minutes an automatic outlet valve COMPLETELY EMPTIES THE TRAY of the hypo-contaminated water, leaving no doubt

about the prints passing the permanganate test. LESS WATER—LESS TIME—CLEAN PRINTS.

6. After washing the Carrier is placed in the Draining Rack and the entire system moves forward another step. After draining, the prints are removed for drying.

The single SYSTEM consists of:

- |   |                                |
|---|--------------------------------|
| 1 Motor Equipped ROCKER, complete with: |                                |
| 1 Hypo Tray (Molded Rubber)             | 1 Draining Stand               |
| 1 Washing Tray (Patent Outlet)          | 1 "Short Stop" Tray (Monel)    |
| 1 Time Indicator                        | 4 Print Carriers (PAKO Patent) |

PRICE \$195.00 with standard motor.

Auxiliary SYSTEMS for tandem operation comprise all the above mentioned units with the substitution of spacing rods and connector in place of a second motor. (Three ROCKERS can be operated from one motor.) Note: If an acid short-stop is desired attached to the system itself, the attachment can be supplied for \$4.50.

PRICE \$165.00 for Auxiliary.

Monthly Payment Plan or 10% Cash Discount.

## Pa-kO Print Washer

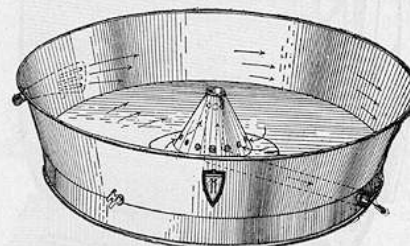
Foremost among Print Washers is the PAKO Motor Driven Washer, and one cannot make a better investment than to install one of these. The drum rotates and keeps the prints in circulation in the water. A foot treadle raises the drum to a convenient height for removing prints. Large sized drum has a capacity of 250 average prints per load with an approximate speed of 1000 perfectly washed prints per hour. Constructed to be connected directly with both water supply and sewer. Compactly built, 24 inches wide by 37 inches long by 37 inches high. Built of galvanized steel and angle iron frame. Attractively finished in aluminum and black enamel.



Cat. No.

W-402A	Complete with 110 Volt A. C. Motor.....	\$125.00
W-402D	Complete with 110 Volt D. C. Motor.....	125.00
W-402S	Complete with Motor of other Voltage.....	125.00
		Monthly Payment Plan or 10% Cash Discount

## The Haldorson Centrifugal Print Washer



This remarkable washer has swept into popularity by reason of its universally recognized merits, having been tested out in leading finishing plants of the country.

Entering from top, the water is given great velocity by passing through small openings at the side and is directed along the wall so that it flows around the basin in a circular stream.

The central outlet absolutely prevents massing at outlet as in other washers and the swirling motion of water prevents prints from sticking to sides or bottom, keeping them suspended and distributed in a steady stream of freshly renewing water. Once in the water the prints need no attention until ready to be removed.

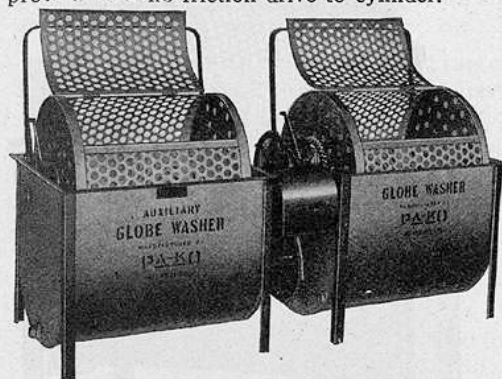
The drain faucet draws off the water when washer is not in use.

Cat. No.	Size	Prices
W-405A	24 inch	\$13.00
W-405B	30 inch	16.00
W-405C	36 inch	18.50
		(E)



## Pa-kO "Globe" Washers

A very fine piece of apparatus that carries the standard Pa-kO guarantee as well as our own. 20 inches high; 19 inches front to back; 27 inches wide (including motor as installed); it is a little giant. Ample flow of water is assured. The drive is by an oversize tannate belting to shaft on which two rubber rolls provide non-slip friction drive to cylinder.



Requires no attention whatever excepting loading and unloading.

Easily installed in sink or on drain board. Water connections can be made with rubber hose.

Will thoroughly wash up to four batches of prints per hour.

Always operates at same speed regardless of water pressure and a "demon" for work in the rush seasons, and a reliable assistant when you are trying to cut down expenses.

Its sturdy and substantial construction and its durable finish, make it a handsome piece of studio equipment. Carries the Pa-kO one year guarantee.

Cat. No.

W-403A	Complete with 110 Volt A. C. motor.....	\$75.00
W-403D	Complete with 110 Volt D. C. motor.....	75.00
W-403X	Auxiliary (same as above but without motor).....	50.00

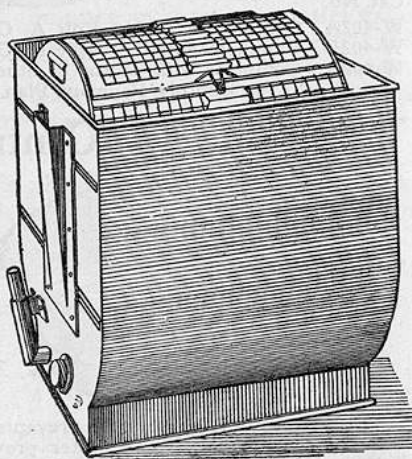
Monthly Payment Plan or 10% Cash Discount.

## Rex Automatic Print, Portrait, Film and Plate Washer

(Water Power)

With the use of the Rex Print Washer prints and portrait films of all sizes and weights can be washed all at one time. It is without a doubt the most complete print, film and plate washer ever invented, and its rapidity of action and low price makes it indispensable to the thrifty photographer.

The prints and films are engaged in a cylinder. The water pressure is forced up from the bottom of a tank and strikes the cylinder or cage, forcing it to revolve in such a manner that makes it impossible for the prints or film to adhere to the cylinder. The washer can be connected to any faucet by a rubber hose.



Cat. No.	Lbs.	Will wash—	Price	Cat. No.	Plate Attachment	Price
W-404-4	18	6½x8½ or 200—4x6.....	\$15.00	W-404-22	6½x8½ Plates.....	\$3.00
W-404-5	25	10x12 or 300—4x6.....	20.00	W-404-26	8x10 Plates.....	3.50
W-404-6	30	11x14 or 400—4x6.....	25.00	W-404-30	10x12 Plates.....	4.00
W-404-7	38	16x20 or 600—4x6 or 125—8x10.....	30.00	W-404-35	11x14 Plates.....	4.50
W-404-8	50	18x22—800—4x6 or 200—8x10.....	35.00			

Monthly Payment Plan or 10% Cash Discount.

## Lenz Rotary Print Washer

A New Rotary Print Washer Accommodating Enlargements, Portraits and Commercial Prints



Lenz Rotary Washer

It Spins Like a Top

on a Ball Bearing, and Runs so Easily That No Power Is Required Except the Water That Does the Washing.

The Washer consists of two heavy tinned copper pans, one inside of the other. The inner pan has a perforated bottom and spins on a pivot in the center. A brass spray pipe is suspended across the top, which sprays the water downward at an angle, causing the inner pan to rotate, which carries the prints under the spray twice every round. Prints stay straight, never buckle, roll up, mat together, or stick to sides. This spray of fresh water washes off all impurities from the prints and carries it downward through the perforations, and out through the drain in the side of the Washer. The drain spout is adjustable so that any depth of water can be steadily maintained in the Washer, making it adjustable for any number of prints. Easy to drain, simply turn down the drain spout. Being as the inner pan rotates about the same speed as the prints, friction is practically eliminated, thereby making it possible to wash the most delicate prints with perfect safety to either the paper or emulsion.

MADE IN THREE SIZES—16 OZ. TINNED COPPER.

Cat. No.

W-400A	26-inch—Especially recommended for the Photo Finisher. Will wash all sizes up to 6x8, and enlargements up to 11x14. Price....	\$39.00
W-400B	32-inch—Especially recommended for general studio and commercial work, also all sizes up to 8x10, and enlargements up to 14x17. Price .....	48.00
W-400C	38-inch—Especially recommended for large portraits in all sizes up to 11x14 or 10x16, and enlargements up to 18x24. Price.....	57.00

Shipped boxed or crated complete, with instructions for use.  
Monthly Payment Plan or 10% Cash Discount.

## Lenz Centripetal Print Washer



If you want an inexpensive Washer that will do the business, get the old reliable LENZ CENTRIPETAL in this greatly improved model. Made of galvanized iron, with brass spray pipe, and a copper drain.

The simplest and best low-priced Washer on the market. Now being used in hundreds of studios all over the country.

Cat. No.

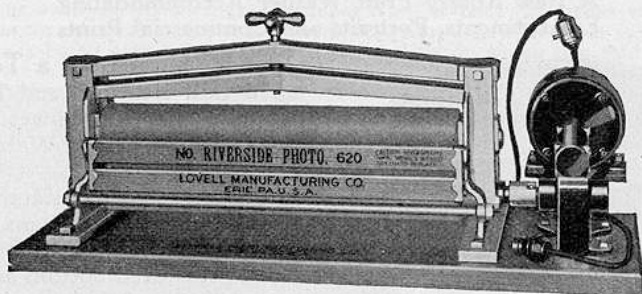
W-401A	24-in. for all sizes up to 4x6. Price.....	\$15.00
W-401B	30-in. for all sizes up to 6x8. Price.....	18.00

Monthly Payment Plan or 10% Cash Discount.



**"ORDER FROM NORMAN-WILLETS" CHICAGO**

## Squeegee Photo Wringers



Designed by Practical Photographic Engineers  
for Photographic Service Exclusively

New Principles employed throughout effectively overcome the objections found in general utility wringers when used for photographic purposes.

Density of Rubber Composition has been determined especially for correct squeegee contact. Very light pressure is required, which safeguards emulsion of prints and requires minimum driving power.

A Pressure Lift releases contact when not in use, preventing flat rolls.

Combination Safety Guard and print guide is removable and can be used on either side to protect operator.

In consequence of such radical improvements of the new Riverside Photo Wringer, it will do what a Photo Wringer should do—Operates easily; positively will not buckle prints; gives perfect gloss surface contact with minimum pressure on emulsion; completely eliminates free water from both prints and tins; insures uniform drying quality, thus preventing creases caused by uneven drying; and likewise shortens drying time in your print dryer.

Progressive Photographers have given this wringer unbounded praise for its splendid service under severest conditions.

### PRICES WITH MOTOR (POWER)

Cat. No.		Each
W-618P	Riverside Photo—Rolls 18x3 inches.....	\$196.00
W-620P	Riverside Photo—Rolls 20x3 inches.....	204.00
W-622P	Riverside Photo—Rolls 22x3 inches.....	212.00
W-624P	Riverside Photo—Rolls 24x3 inches.....	220.00

(I) or (★)

With D. C. Motor add \$15.00 to list

Furnished with  $\frac{1}{8}$  H. P. Motor, 110 Voltage A. C. or D. C. current.  
Speed of Rolls 27 R. P. M. Silent running, machine cut, worm gear drive, universal coupling.

### WITHOUT MOTOR (HAND)

Cat. No.		Each
W-618H	Lakeside Photo—Rolls 18x3 inches.....	\$ 97.00
W-620H	Lakeside Photo—Rolls 20x3 inches.....	102.00
W-622H	Lakeside Photo—Rolls 22x3 inches.....	107.00
W-624H	Lakeside Photo—Rolls 24x3 inches.....	112.00

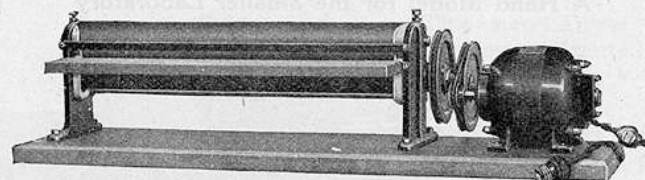
(I) or (★)

Also on Monthly Payment Plan.

**"ORDER FROM NORMAN-WILLETS" CHICAGO**

## Norwil No. 1 Squeegee Wringer

(Power)



This Squeegee Wringer is made large enough to take all standard size ferrotype tins up to 20 inches and is adapted for either the amateur finishing plant or commercial studio.

A constant speed motor supplies the power so that the work of handling squeegee prints is greatly facilitated. A tray for receiving the drippings is provided with each machine so that surplus water is taken care of.

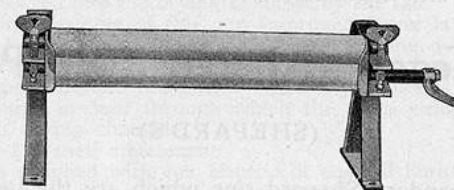
**SPECIFICATIONS:** Solidly mounted on hardwood base; finger guard and feeding platform; rollers, size 20x2 inches, of soft, squeegee rubber and unaffected by chemicals; screws for adjusting pressure; 110 volt A. C. motor geared to about 50 R. P. M.; complete with switch, cord, and plug for attaching.

Cat. No.		List
W-300	Price, with A. C. Motor.....	\$ 95.00
W-301	Price, with D. C. Motor.....	105.00

Monthly Payment Plan or 10% Cash Discount.

## Norwil No. 2 Squeegee Wringer

(Hand)



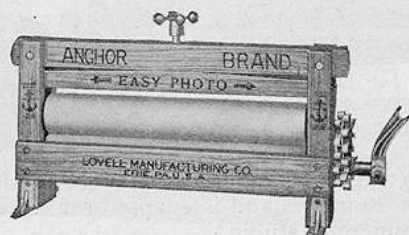
Especially designed for backing glossy photographs with Holliston Photo Cloth. Recommended to the photo finisher who turns out high gloss ferrotyped prints. Equipped with adjusting screws to regulate the pressure so that sufficient moisture is extracted from the prints for quick drying, and to give perfect contact of glossy prints without air bells on ferrotype tins. The rolls are made of durable soft rubber and there are no springs or gears to get out of order.

Cat. No.	Roll Size	Net Prices
W-418	18"x2"	\$16.00
W-420	20"x2"	16.50
W-424	24"x2"	17.50



## The EASY Photo Wringer (LOVELL)

A Hand Model for the Smaller Laboratory



The Easy photo wringer is well made in every respect and will last a long time. It is just the thing for the small plant where a large production is not required. The rubber rolls are carefully ground so that their lengths run parallel at all times. Very reasonable in price.

Cat. No.		Prices
W-312	Size of rolls 12x2 inches.....	\$14.00
W-314	Size of rolls 14x2 inches.....	15 50
W-316	Size of rolls 16x2 inches.....	17.00
W-318	Size of rolls 18x2 inches.....	18.50
W-320	Size of rolls 20x2 inches.....	20.00
W-322	Size of rolls 22x2 inches.....	21.50
W-324	Size of rolls 24x2 inches.....	23.00
		(G)

## Holliston Velvet Squeegees

For use in squeegeeing prints to ferrotype plates or to Holliston backing cloth when no wringer is used.

Cat. No. S-900—12-inch length only.....Net \$1.00

## Squeegee and Ferrotype Plates

(SHEPARD'S)

We sell the standard Shepard tins which are the best obtainable on the market.

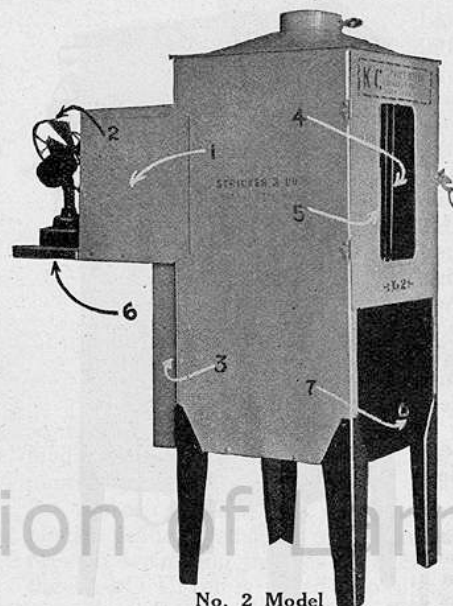
### NET PRICES

Cat. No.		Per Case	Square-cornered		Round cornered	
			Each	Per Doz.	Per Case	Per Case
F-900A	10x14 Squeegee Light .....	200	\$0.25	\$1.00	\$23.80	\$28.40
F-900B	10x14 Squeegee Medium .....	100	.35	1.75	12.50	14.35
F-900C	10x14 Squeegee Heavy .....	100	.40	3.00	17.50	20.00
F-900D	10x14 Squeegee Extra Heavy .....	100	.50	4.00	19.25	21.25
F-900E	12x17 Squeegee Heavy .....	100	.60	4.75	32.25	37.80
F-900F	14x20 Squeegee Heavy .....	100	.80	5.75	38.50	43.75
F-900G	18x24 Squeegee Heavy .....	60	1.35	9.00	36.00	41.25

Add 10% to above prices for Round-cornered Plates in less than case lots.

## Model "No. 2" K. C. Dryer

for Drying Glossy Ferrotype Prints right and quick



No. 2 Model

This new Dryer embodies many newly patented exclusive features.

The following are some of the exclusive patented features:

No. 1 The Fan Housing is one of the new improvements recently added to the K. C. Print Dryer. With the Fan Housing and new position of fan prints are dried in one-third of the time formerly required. The object of the Fan Housing is to catch and hold the warm air so that it can be forced into the drying chamber evenly by the fan, and after passing over the prints it is exhausted through the opening in door from which the glass is removed. And in this way warm fresh air is constantly passing over the prints which causes them to dry very rapidly and satisfactorily. The prints come out of the Dryer with all the brilliancy and snap characteristic of first class work. All danger of baking is eliminated.

No. 2 New position of fan in connection with the Fan Housing. The fan blades are set at about a 60-degree angle so they will force the air against the under side of the top of Fan Housing. This causes an even circulation of fresh warm air to flow through drying chamber which is exhausted through opening in door.

No. 3 The warm air duct supplies warm air to Fan Housing, where it is mixed with fresh air and forced into the drying chamber by the fan.

No. 4 The drying chamber of this new improved Dryer is so constructed that fresh warm air is forced into the back which after passing over the prints, is exhausted through the opening in door. This causes the prints to dry very rapidly at a moderate temperature and the danger of baking is eliminated.

No. 5 The opening in door through which the air is exhausted. This causes good ventilation in drying chamber.

No. 6 The new fan shelf attachment.

No. 7 Heater is supplied with gas, electric or coal oil burner. We recommend the gas burner where gas is available, also guarantee electric or oil burners to give efficient results when supplied by us.

Cat. No.		Prices
D-200G	Model "No. 2" K. C. Print Dryer, accommodating eleven 14x20 tins, or twenty-two tins back to back with gas burner.....	\$55.00
D-200E	Model "No. 2" K. C. Print Dryer, accommodating eleven 14x20 tins, or twenty-two tins back to back with electric heating unit.....	91.00
D-200CO	Model "No. 2" K. C. Print Dryer, accommodating eleven 14x20 tins, or twenty-two tins back to back with Perfection coal oil stove.....	63.00
D-201G	Model "No. 2" K. C. Print Dryer, accommodating twenty-two 10x14 tins, or forty-four tins back to back with gas burner.....	60.00
D-201E	Model "No. 2" K. C. Print Dryer, accommodating twenty-two 10x14 tins, or forty-four tins back to back with electric heating unit.....	96.00
D-201CO	Model "No. 2" K. C. Print Dryer, accommodating twenty-two 10x14 tins, or forty-four tins back to back with Perfection coal oil stove.....	68.00

When Dryers with electric units are ordered, specify voltage.

An 8-inch fan must be used with these No. 2 K. C. Dryers, which is not included at the above prices.

Monthly Payment Plan or 10% Cash Discount.



## Model "B" K. C. Print Dryer

Is Built to Accommodate All Standard Sizes of Ferro Tins

With the new exclusive patented features embodied in the new Model "B" K. C. Print Dryer the prints are dried very rapidly by fresh warm air being circulated over them constantly, which prevents baking the prints and they come out with all the brilliancy and snap characteristic of properly dried prints and this will help greatly in building up business for a finishing plant. Prints can be dried very rapidly or they may be dried more slowly at the will of the operator. Double weight prints as well as single weight prints are quickly and satisfactorily dried.

The following are some of the exclusive patented features of the New Model "B" K. C. Print Dryer:

No. 1 Cabinet is made of galvanized steel. Size is 22 inches by 26 inches and 5½ feet high and can be installed in a small space and at the same time has a large capacity. Being an all steel unit, it conforms to the fire underwriters' specifications.

No. 2. New adjustable fan shelf. Can be adjusted for different sized fans.

No. 3. Fresh air opening.

No. 4. Drying Chamber. Is so constructed that the temperature at top or bottom is the same. Sufficient amount of fresh air is forced in to cause good circulation in all parts of drying chamber, and the prints are dried (not baked), rapidly and evenly with fresh warm air.

No. 5. Hot air mixing pan. Where heat is thoroughly mixed with fresh air to reduce the temperature before being circulated through drying chamber by the fan.

No. 6. Showing removable galvanized rods in position.

No. 7. Drying Rack. Is made of galvanized steel so constructed that each tin gets its proportion of warm air. Tins are easily inserted or removed.

No. 8. Heater supplied with gas, electricity or coal oil burners. We recommend the gas burner where gas is available. We also guarantee electric or oil burners to give efficient results when supplied by us.

D-202G Equipped with gas burner and accommodating 14-18x24 inch tins, or 28 back to back.....\$95.00

D-203G Equipped with gas burner accommodating 14-14x20 inch tins, or 28 back to back.....\$90.00

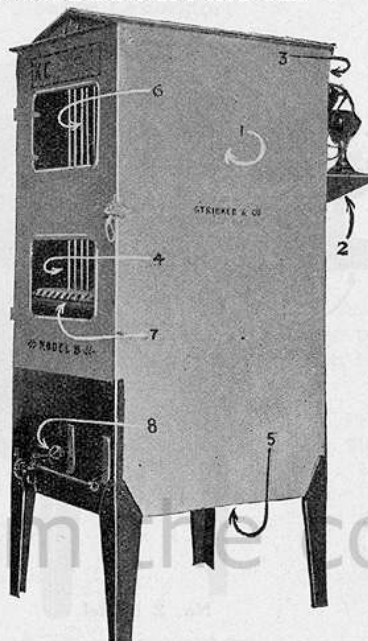
D-204G Equipped with gas burner accommodating 28-10x14 inch tins, or 56 back to back.....\$98.00

When an electric heating unit is furnished in place of gas, add \$36.00 to price of Dryer.

When an oil stove is supplied in place of gas, add \$8.00 to price of Dryer. A fan must be used with the K. C. Dryer which is not included in above prices.

When ordering Dryers be sure to state size of Tins to be used in Dryer.

Monthly Payment Plan or 10% Cash Discount



Patented, Infringements will be prosecuted.

## Pa-kO Print Dryer

The Pa-kO Dryer is universally fitted to the requirements of photo finishers, commercial photographers and business houses making small blue prints, etc.

Special Single Drying Apron — The patented Pa-kO apron is a wonderful feature. Constructed of a special backing and a facing of high grade fabric, this apron makes possible a combination of absorption and heat treatment which effects speedy drying without the application of excessive heat.

The apron is long enough

so that it dries thoroughly before returning for more prints. The feeding table at just the proper height to insure easy operation and maximum speed.

Apron Control—A combination of four-roller-drive, properly placed guides, tension rollers and an apron with sufficient body to prevent wrinkling insures an even, straight forward travel for which the Pa-kO Dryer is noted—no slipping, no creeping.

Three Speed Attachment—This simple and practical arrangement of stepped pulleys permits control of the apron speed so that any print may be dried in one trip through the machine. There is sufficient range of speed for all the varieties of work which may be run upon it.

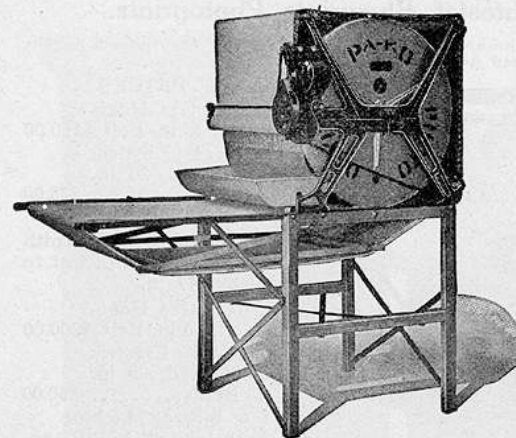
Heat Regulation—On both gas and electric heated models provision is made for heat regulation. On the gas model any variation of heat required may of course be accomplished. The electric model is equipped with a three heat switch, for high, medium and low heats, and the drum is well insulated so that all the heat is applied to the circumference of the drum, insuring economical operation. With each machine is furnished a Pa-kO Pyrometer which eliminates guess work as to the heat of the drum and enables the operator to ascertain the proper heat required for each particular job and to duplicate that heat condition at will.

Specifications—Wood base mahogany finish; castings and metal braces battleship grey; sheet metal parts galvanized and finished in aluminum; one-twentieth horse power motor black enamel. Dimensions: 32" wide, 66" long and 60" high. Shipping weight (knocked down) 335 lbs.

Cat. No.	Prices
D-202G Gas heated complete with motor.....	\$160.00
D-202E Electric heated complete with motor.....	225.00

Monthly Payment Plan or 10% Cash Discount

Price quoted covers either 110 or 220 volt direct or 60 cycle alternating current motors. Always specify A. C. or D. C.

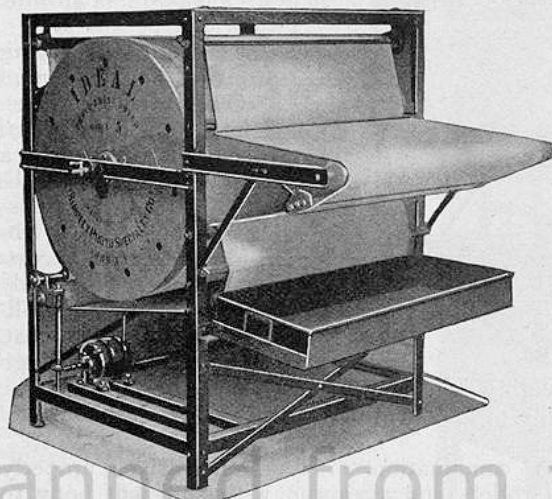




## "Ideal" Double Belt Print Driers

Photo-Record, Photostat, Blueprints, Photoprints.

Positive Traction, Positive Automatic Control of both Belts, recognized as the only method of Drying Photo Prints.



**PRICES**  
 No. 4 Gas Heated, 20 in. Belt \$150.00  
 No. 4 Electric Heated, 20 in. Belt ..... 225.00  
 Size of Machine  
 Height 47 in. Width 28 in. Length, front to back, 47 in.  
 No. 5 Gas Heated, 30 in. Belt \$200.00  
 No. 5 Electric Heated, 30 in. Belt ..... 250.00  
 Size of Machine  
 Height 47 in. Width 39 in. Length, front to back, 47 in.  
 No. 6 Gas Heated, 40 in. Belt \$325.00  
 No. 6 Electric Heated, 40 in. Belt ..... 375.00

Size of Machine—Height 47 in. Width 48 in. Length, front to back, 47 in.  
 Monthly Payment Plan or 10% Cash Discount

## Victor Print Dryers

The Victor Dryers are being used in the largest Banks and Insurance Companies throughout the United States, as well as Amateur Finishers, Blue Print, Telephone and Newspaper Syndicates.

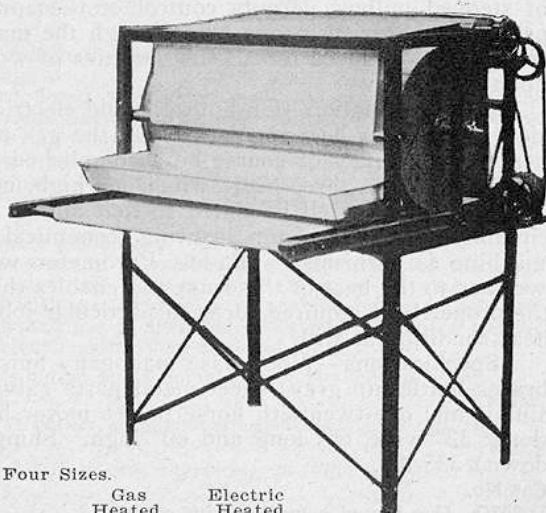
Electric Type have heating coils of sufficient heating strength to dry prints at all times in any quantity, without cockled or ruffled edges. No heating regulation necessary. Too much heat at any time will dry prints brittle, but will be smooth and flat, a feature heretofore considered impossible, but overcome on Victor Dryers.

Furnished for 110-220 volts, D. C. or A. C., 60 cycle current.

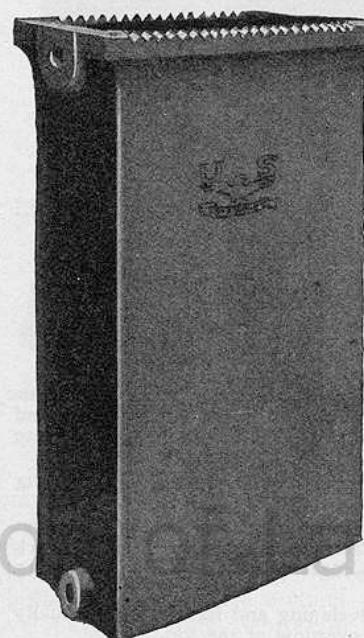
Made in Four Sizes.

		Gas Heated	Electric Heated
Single Unit	20-in Belt	\$200.00	\$250.00
Twin Model	Two Machines (With 20-in. belt.)	350.00	400.00
Victor	36-in Belt	350.00	400.00
Victor Blue Print	60-in Belt	400.00	450.00

Complete detailed circulars upon request.  
 Monthly Payment Plan or 10% Cash Discount



## Developing Tanks



"U. S. STANDARD"

Thoroughly  
 Vitrified and  
 Well Glazed



"U. S. STANDARD" Tanks are regularly furnished with top and bottom outlets and if either or both of these outlets are not needed, rubber plugs can be conveniently inserted.

Cat. No.	Capacity	Inside Measurements	Net Weight	Price
T-91A	10 gal.	8 x 8 x 38	90 lbs.	\$17.00
T-91B	14 gal.	8 x 9½ x 42	115 lbs.	23.00
T-91C	18 gal.	10½ x 9½ x 42	140 lbs.	26.00
T-91D	20 gal.	16 x 8 x 38	190 lbs.	27.50
T-91E	24 gal.	14 x 9½ x 42	200 lbs.	30.00
T-91F	24 gal.	11¼ x 11½ x 42	200 lbs.	30.00
T-91G	29 gal.	17 x 9½ x 42	220 lbs.	35.00
T-91H	48 gal.	20¼ x 11¼ x 48½	345 lbs.	49.50
T-91Z	18½ gal.	12 in. dia. by 38 in. deep (cylindrical)	145 lbs.	15.00

Time Payment Plan or 15% Cash Discount, or 5% additional discount if F.O.B. Akron, Ohio.

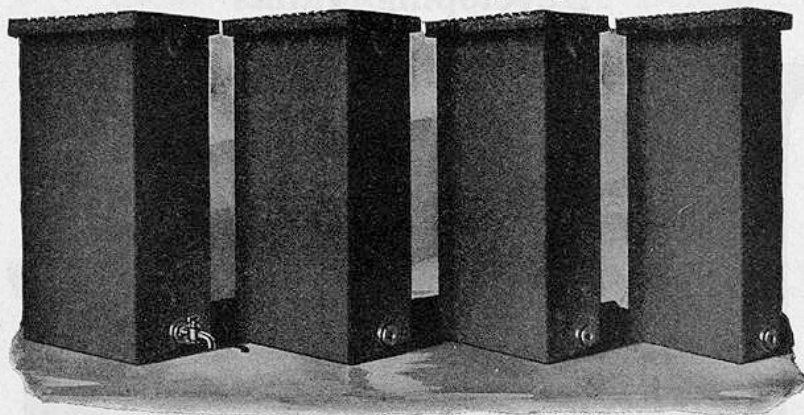
Cat. No. F-903 Stoneware Bibb Faucets, fitted and ground into the outlets, \$6.50 net each.

## ACCESSORIES

Same as Commercial page 74 with exception of cylindrical racks, Cat. No. R912, which will be furnished at \$6.00 net.



## Commercial Developing Tanks



Commercial Tanks are made of acid proof stoneware in one solid piece without joints. Leakage is impossible. Our tanks are thoroughly vitrified and glazed. The very strongest solutions of acid will not corrode either the glaze or the body. They will last forever unless broken by external force.

The Tanks are rectangular and made for economical handling. Films hang parallel. There is no waste of space.

The first or Developing tank should have a wooden cover to prevent oxidation of the developer and fogging by light accidentally admitted to the dark room. The cover can easily be made by a local carpenter. The developing tank usually has no outlets.

The second Tank is for rinsing between developing and fixing. It is usually ordered with an outlet at the bottom and an overflow at the top.

The third or Fixing Tank usually has an outlet at the bottom, to drain the tank when desired. This outlet may be closed with a rubber stopper, or with a stoneware or wooden faucet.

The fourth Tank is for the final washing. It is similar to the second tank, having an outlet at the bottom and an overflow at the top.

The films are suspended in the tanks with Film Clips upon metal supporting rods.

Cat. No.	Inside Measurements	Capacity Gallons	Rolls Handled per day—1A size or smaller	No. Supporting Rods	Approx. Ship. Weight	Price
T-90C	8 x 8 x38	10	288	6	175 lbs.	\$23.00
T-90F	9 1/2 x 8 x42	14	336	6	190 "	28.00
T-90G	9 1/2 x 10 1/2 x42	18	504	7	240 "	32.00
T-90D	8 x 16 x38	20	576	12	280 "	34.00
T-90H	9 1/2 x 14 x42	24	672	9	300 "	38.50
T-90K	9 1/2 x 17 x42	29	740	11	360 "	42.00
T-90E	11 1/4 x 20 1/4 x48 3/4	48	1080	13	400 "	55.00
T-90P	11 1/4 x 11 1/4 x42	23	800	5 (Pako)	300 "	35.00

Commercial Tanks have outlets at top and bottom, either of which can be easily plugged with a rubber stopper.

Monthly Payment Plan or 15% Cash Discount or 5% Additional Discount if F.O.B. New York.

## Accessories for Commercial Tanks

Cat. No.	Net Ea.	Cat. No.	Net Ea.
F-902W Wooden Faucets	\$1.25	R-910A Weighting Rings, 3 1/2 in.	\$0.25
F-902C Ceramic "	6.50	R-910B Weighting Rings, 4 1/2 in.	.25
W-900 Hooked Weights	.25	R-911 Monometal Supporting Rods, for any style	.35
H-900 Wire Hooks	.05		

## Film Developing Outfits



The complete Sterling Developing outfit consists of Steel Enamel Water Jacket, one developing Tank, one Fixing Tank with space between for washing the films.

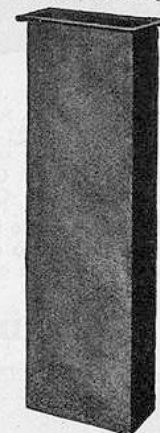
An enormous amount of work can be turned out with these compact, low upkeep Sterling Outfits. They are supplied in two sizes, 10 gallon and 17 gallon capacity. 10 gallon Tanks measure 5x12x42 in., 17 gallon Tanks measure 8x12x42 in. Each 10 gallon tank will hold twenty to twenty-four rolls of film, and the 17 gallon from 30 to 45 rolls. Two or three loadings

can be developed per hour. Great saving of solution. Ideal equipment for small or large plant. Made of heavy gauge steel, triple enameled. Will last a lifetime with proper care. Tanks supplied in both blue and white enamel. One blue for developing and one white for tank fixing recommended.

Sterling Tanks save time, money, labor and solutions.

Remember the size and the shape have been scientifically worked out, so that the greatest amount of work with the least amount of solutions is the result.

Sterling Tanks are complete, compact and convenient. (No large, heavy, cumbersome weight to drag around.) Built for service and efficiency. Large capacity. Small cost. Big profits. Best results. Superior Quality. Low Upkeep.



STERLING TANK  
5" x 12" x 42"

### Prices

No. 1—10 Gal.				No. 2—17 Gal.			
Sterling		Vitrified		Sterling		Vitrified	
Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price
Blue Stock Tanks, each... T-92A	\$12.00	T-93A	\$14.00	T-94A	\$16.50	T-95A	\$18.00
White Stock Tanks, each... T-92B	15.00	T-93B	17.00	T-94B	18.00	T-95B	21.00
Stock Tank Lids, each... T-92C	1.75	T-93C	1.50	T-94C	2.10	T-95C	2.00
Water Jackets, each... T-92D	36.00	T-93D	40.00	T-94D	45.00	T-95D	50.00
Water Jacket Lids, each... T-92E	3.90 net			T-94E	4.50 net		
"T" Wire Hangers, doz... T-92F	1.80 net			T-95F	1.80 net		

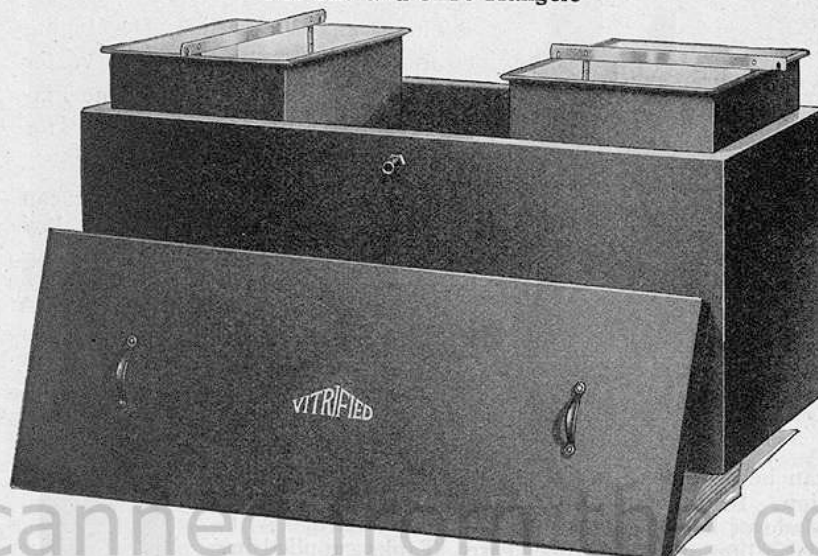
Monthly Payment Plan or 10% Cash Discount on Sterling Tanks or 20% Cash Discount on Vitrified Tanks.



## Commercial Studio Developing Outfit

(Vitrified)

For 5x7 and 8x10 Hangers



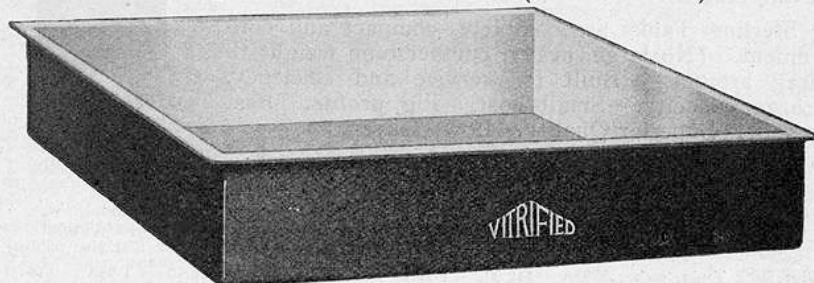
SIZE: Outer Tank, 26½x12½x11 deep. Inner Tanks, 8x11x10 deep. Covers, 26½x12½x1 deep. CAPACITY: Outer Tanks, 15 gallons. Inner Tanks, 3½ gallons each. FINISH: Outer Tank, Dark Blue inside and out. Inner Tanks, White inside, Blue out. WATER CONNECTIONS: Top and bottom for ½-in. standard pipe. SHIPPING WEIGHT: 35 pounds.

Cat. No. T-400 Complete with White Inner Tanks.....\$30.00

Cat. No. T-401 Complete with One White and One Blue Inner Tank... 28.00

Flanges on the inner tanks rest on the rim of the outer tank or water jacket, permitting lid to completely cover the outfit, even while the hangers are suspended, when in or not in use. Rinsing space 8½x10½x11 deep.

## Fixing Bath Tanks (Vitrified)



Cat. No.	Dimensions	Capacity	Price	Cat. No.	Dimensions	Capacity	Price
T-301	16x20x6	8 gal.	\$12.00	T-303	20x24x6	12 gal.	\$16.00
T-302	18x24x6	11 gal.	14.00	T-304	20x30x6	15 gal.	18.00

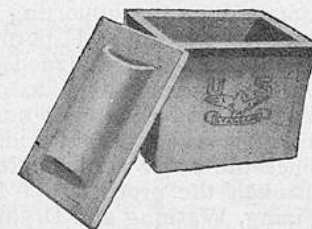
Other Sizes Made to Order

Outfits and Fixing Baths are made of 20-gauge Armco iron, glass coated and guaranteed impervious to rust or corrosion or action of photographic chemicals.

Monthly Payment Plan or 15% Cash Discount

## Developing Tanks for Plates and Cut Films

These tanks are made of acid-proof chemical stoneware and are designed for use by professional photographers for the development of plates and cut films. The tanks are well glazed and thoroughly vitrified. Because of their solid, one-piece construction,—without joints or seams,—leakage is impossible. The tanks are built for permanence and under ordinary conditions they will last a lifetime.



An exclusive feature on these tanks is the rim around the top, making for easier lifting and handling.

Mfrs. No.	Inside Length	Width	Depth	Net Weight	Tanks Only Cat. No.	Net Price	Covers Extra Cat. No.	Net Price
No. 2	7⅞ in.	4⅞ in.	7⅞ in.	13 lbs.	T-95-2	\$5.60	T-97-2	\$2.80
No. 2A	10¾ in.	7¾ in.	7⅞ in.	16 lbs.	T-95-2A	6.50	T-97-2A	3.25
No. 3	10¾ in.	7¾ in.	10⅞ in.	21 lbs.	T-95-3	6.75	T-97-3	3.35
No. 3A	10¾ in.	3¾ in.	10⅞ in.	15 lbs.	T-95-3A	5.60	T-97-3A	2.80
No. 4	11⅞ in.	7¾ in.	9¾ in.	21 lbs.	T-95-4	6.75	T-97-4	3.35

NOTE: Estimates and quotations given on larger sizes.

## Stoneware Developer Jars

Large laboratories have found our Stoneware Developer Jars indispensable for storing developer solution. Stoneware Jars will maintain an even temperature indefinitely, thus assuring a uniform quality. No filtering is required because the impurities settle to the bottom of the Jar, below the faucet line. The developer is therefore always pure and ready for immediate use. The cover fits snugly and prevents oxidation. These Developer Jars are made of common stoneware, for wooden faucet connections.



Cat. No.	Net Price
T-98-5 5 Gal. size.....	\$4.50
T-98-10 10 Gal. size.....	7.50



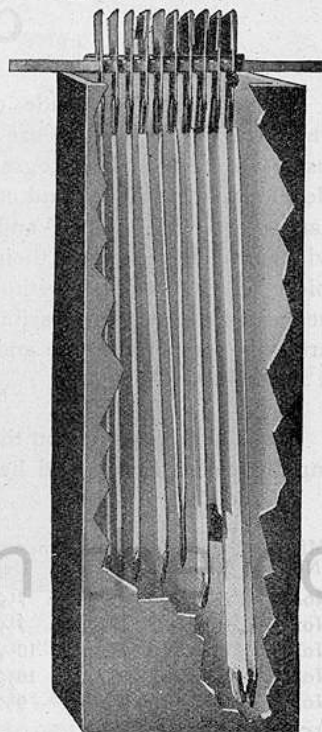
## Multiple Roll Hangers

The Pa-kO Multiple Roll Hanger consists of a number of movable units mounted on a supporting rod. The units answer a double purpose. First, the upper part is designed to hold the order corresponding to each film. This method eliminates numbering or marking the roll for identification, since the order accompanies each roll through the processes of Developing, Fixing, Washing and Drying.

Second, the lower part of each unit holds a film through the entire dark room process, rendering unnecessary any individual handling from the time the roll is taken from the spool until it is dry.

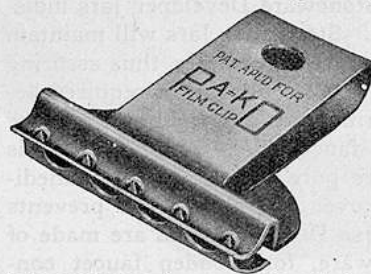
### Stock Sizes

No. 10—Ten units, for tanks 12" wide. \$ 3.00  
No. 18—18 units for tanks 21" wide. 5.40  
Outfit "A," comprising 5 No. 10 Hangers and 2 loading brackets (50 roll capacity) 15.00  
Outfit "B," comprising 5 No. 18 Hangers and 2 loading brackets (90 roll capacity) 27.00  
Loading Brackets, each .75  
Wall Racks for suspending hangers while films are drying, each .75  
Special sizes for any size tank can be furnished to order. (C)



## Pa-kO Film Clips

These Film Clips are constructed of monol and 18 gauge nicked brass. Its two-inch alligator jaws perforate the film end in five places, reducing the danger of losing rolls to a minimum. The jaws open 1/2" for easy loading, while an automatic stop keeps the film from being inserted too far. The peculiar construction prevents the film from coming in contact with a flat surface, and overcomes the tendency to adhere to the clip. The Pa-kO Clip is heavy enough for an ideal "weight" clip, and is used as regular equipment on each roll hanger unit.

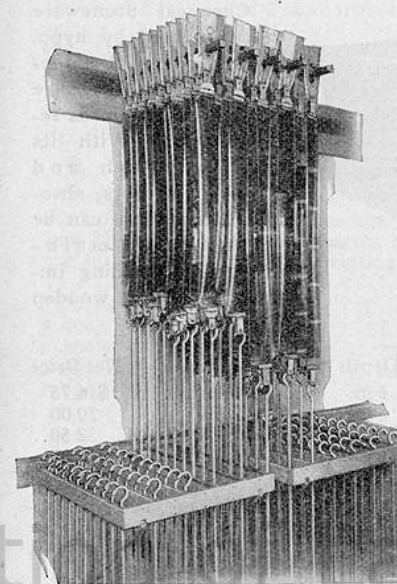


### PRICES

Cat. No.	Per Doz.	Per Gross
C- 80B Pa-kO Clips, nicked brass	\$1.25	\$10.50
C- 80M Pa-kO Clips, monel metal	3.50	35.00
R-910C Pa-kO Weighting Rings	2.50	22.00

(A)

## Pako Multiple Weight Unit



### Curly Films Doomed

In the busy summer months, when the drying time is reduced with the aid of heat, films will twist, and kink, and curl, causing a large loss of time in subsequent operations and loss of many dollars in profit.

PAKO Multiple Weight Units put a stop to this loss, by holding films straight during the drying. They dry straight and stay straight—and are much more easily and quickly handled during cutting, printing and sorting.

This PAKO device has aroused widespread interest among photo finishers.

Cat. No. W-60 PAKO Weight Unit No. 60. Capacity: 60 rolls on 6, 10-roll Hangers. \$27.00

Cat. No. W-108 PAKO Weight Unit No. 108. Capacity: 108 rolls on 6, 10-roll Hangers. \$48.00

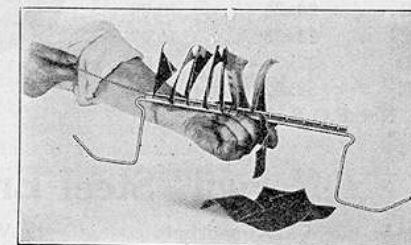
Monthly Payment Plan or 10% Cash Discount.

## Dye (Pako) Film Pack Hanger and Loading Stand

Handles Film Packs with exactly the same advantages as the PAKO Multiple Roll Hanger.

Easily loaded and unloaded—adaptable to any size of finishing plant or studio. Made in 3 sizes for tanks of various dimensions.

No. 6—10 inches wide, 7 inches deep—6 films.  
No. 12—13 inches wide, 7 inches deep—12 films.  
No. 18—18 1/2 inches wide, 7 inches deep—12 films.



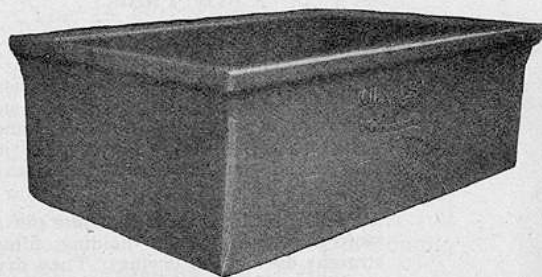
This illustrates the simple method of loading the DYE Film Hanger.

	No. 6	No. 12	No. 18
	Cat. No. Price	Cat. No. Price	Cat. No. Price
Master Hangers	H-6A \$1.00	H-12A \$1.00	H-18A \$1.50
Hanger Units	H-6B 1.00	H-12B 1.00	H-18B 1.50
Loading Stands	H-6C 1.00	H-12C 1.00	H-18C 1.50
Extra Needles	H-6D .15	H-12D .15	H-18D 20

(C)



## Hypo Vats



Chemical Stoneware is unaffected by hypo, and a chemical stoneware Hypo Vat, once bought, never needs replacement. With its smooth finish and rounded corners, absolute cleanliness can be permanently maintained,—something impossible with wooden vat.

Cat. No.	—Inside Measurements—			Weight	Net Price
	Length	Width	Depth		
T-78AA	14 in.	18 in.	6 in.	30 lbs.	\$14.75
T-78A	20 in.	24 in.	6 in.	65 lbs.	20.00
T-78B	24 in.	36 in.	6 in.	120 lbs.	32.50
T-78C	25 in.	30 in.	8 in.	135 lbs.	35.00

Net F.O.B. Chicago.

## Stoneware Trays

For Enlargements and Sepia Toning

These Trays are made of guaranteed acid-proof chemical stoneware and with ordinary handling will last a lifetime. Unlike enameled ware, these Stoneware Trays will neither peel nor chip. They are the only Trays on the market warranted to withstand the hot hypo-alum bath.

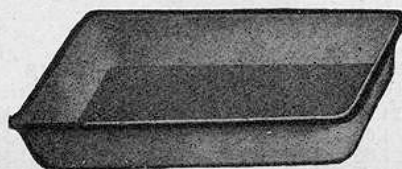
Cat. No.	Size	Net Price
T-76A	16x20	\$ 8.00
T-76B	20x24	13.00
T-76C	22x28	15.00
T-76D	32x36	34.00
T-76E	38x42	50.00

Net F.O.B. Chicago



## "Norwil" Steel Enamel Trays

These Trays are quadruple coated with White Porcelain Enamel on heavy steel base.



Steel Trays—(I)

Cat. No.	For Plates	Price
T-77A	3 1/4 x 5 1/2	\$ 0.75
T-77B	4 x 5	.75
T-77C	5 x 7	1.10
T-77D	6 1/2 x 8 1/2	1.40
T-77E	8 x 10	1.75
T-77F	10 x 12	2.50
T-77G	11 x 14	3.80
T-77H	14 x 17	5.30
T-77J	16 x 20	7.00
T-77K	18 x 22	12.60
T-77L	20 x 24	15.00

## Negative Drying Racks

These racks are strongly and neatly made. They fold up very compactly. Numbers R-913-1 and 2 have troughs to catch the drippings from negatives while drying.

Cat. No.	Price
R-913-1 Holds 36 plates with trough and metal ends.....	\$1.50
R-913-2 Holds 24 plates with trough.....	.60
R-913-3 Holds 24 plates without trough.....	.50
R-913-4 Holds 12 plates without trough.....	.40

(E)

## Professional Printing Frames

These frames are fitted with countersunk piano hinges, which extend along the full width of the pressure board and which add to its strength, appearance and durability. They have extra heavy springs and large finger cut-outs, and are by far the best heavy printing frame on the market.

### PRICES

Cat. No.	Size	Price	Cat. No.	Size	Price
F-904A	5 x 7	\$1.75	F-904E	11x14	\$ 4.50
F-904B	6 1/2 x 8 1/2	2.00	F-904F	14x17	6.50
F-904C	8 x 10	2.25	F-904G	16x20	9.00
F-904D	10 x 12	4.25	F-904H	20x24	10.75

(E)

## Core Plate Developing Racks

Cat. No.	Size	Length of top bar	Price	Cat. No.	Size	Length of top bar	Price
R-914A	4 1/4 x 6 1/2	8 7/8"	\$0.60	R-914D	8x10	13 7/8"	\$0.75
R-914B	5 x 7	9 3/8"	.60	R-914E	8x10	16"	1.40
R-914C	6 1/2 x 8 1/2	12 3/8"	.75	R-914F	11x14	16"	1.75

(C)

## Eastman Film Developing Hangers

Cat. No.	Size	No. 2	Price	Cat. No.	Size	No. 4	Price
H-2A	4 1/4 x 6 1/2		\$0.50	H-4A	4 1/4 x 6 1/2		\$0.60
H-2B	5 x 7		.50	H-4B	5 x 7		.60
H-2C	6 1/2 x 8 1/2		.65	H-4C	6 1/2 x 8 1/2		.75
H-2D	8 x 10		.65	H-4E	7 x 11		.75
H-2E	7 x 11		.65	H-4D	8 x 10		.75
H-2F	11 x 14		1.25				

(C)

H-7A Eastman Film Pack Developing Hangers, for 12 films.....\$1.50

H-7B Extra Clips for H-7A Hangers, per dozen......90

## Eastman Developing and Fixing Box

(Hard Rubber)

Because it is made of rubber, this box may be used for either developing or fixing. Made to stand hard, continuous usage, its durability is proof against leakage, cracked surface and corrosion.

Light in weight but very substantial. It has no cover but steel enameled floating lids are supplied as listed below.

Eastman Developing and Fixing Box (Hard Rubber) No. 2, for 8 5x7 Films or Plates in Eastman Film Dev. Hangers or Core Plate Racks.....\$4.00

No. 3, for 22 5x7, 15 6 1/2 x 8 1/2 or 8x10 Films or Plates.....\$6.00

No. 3A, for 6 6 1/2 x 8 1/2 or 8x10 Films or Plates.....\$5.00

No. 4, for 25 5x7 or 15 7x11 Films or Plates.....6.00

Steel Enameled Floating Lid for No. 2 Box.....1.20

Do., for No. 3 Box.....1.20

Do., for No. 3A Box.....1.20

Do., for No. 4 Box.....1.20





## Print Tongs

These wooden tongs are designed for handling prints in the developer and hypo. Their use insures clean hands and clean prints. No stains either on the hands or on the prints. These Tongs have knob ends which prevent their slipping into the tray when not in use.

Cat. No. T-80D Price, each..... Net \$0.20

## Seamless Rubber Gloves

These gloves will keep silver and Pyrogallic Acid stains from the hands. They are made of the best pure rubber. Each glove is fully warranted to give entire satisfaction. Made in sizes 7, 7½, 8 and 9.

G-80 Any size ..... Price per pair, \$1.00 (G)

## Ingento Print Washer

This print washer employs some scientific principles that have never before been applied for such a purpose, and the result is a washing apparatus in which the prints are thoroughly and separately washed without requiring the slightest attention during the operation.



### PRICES

Cat. No.	Size	Diam. Inches	List each
W-404A1	4x5	9	\$2.00
W-404A2	5x7	12	2.50
W-404A3	Professional	16	4.50
W-404A4	Professional	20	6.00
W-404A5	Professional	24	7.00 (G)

The Nos. 3, 4 and 5 are for professional use. The No. 1 can wash fifty 4x5 prints at one time in twenty minutes.

## The Eagle Scales



Where a low priced accurate scale is wanted Eagle is that scale. A unique method of using gravity as the balancing medium eliminates all separate weights. This is quite a handy feature as the scale is always ready for instant use. A micrometer screw adjustment permits the greatest accuracy whether the scale is on a level surface or not.

### PRICES AND SPECIFICATIONS

Cat. No.	S-910	S-911
Capacity	0 to 16 dr.	1 to 18 oz.
Width of pan	2½"	4½"
Depth of pan	½"	1½"
Height over all	5½"	12½"
Price	\$0.95	\$2.00

## Extra Weights

(Metric)

### FOR ALL SCALES

Handsome draw file finished Metric Weights in a polished wood case with pincers to handle small weights. Set is composed of Milligram weights from 1 to 300 (9 in all) 1 Grain to 100 gr. (9 in all). Each weight has exact seat in box, the small weights having individual seats. Covered by a glass.

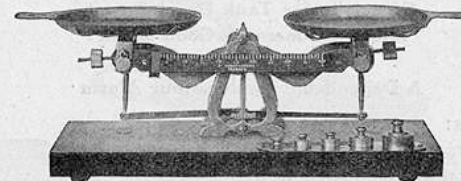
Price per set ..... \$5.00 list

Set of Metric weights (9 in all) from 1 Grain to 100 gr. in wood block into which each weight is fitted; no cover.

Price per set ..... \$2.75

Separate weights brass cylinder, with handle. 250 gr., \$1.50—500 gr., \$2.00—1000 gr., \$2.50.

## S-8 Photographic Scale



Is a darkroom and laboratory necessity. It is dependable and accurate, with precision adjustment throughout. All metal parts heavily nickel plated. Equipped with sliding balance for grains, incorporating both Metric and Avoirdupois systems, graduated from 1 to 50 grains or 1 to 30 decigrams. Hand-somely finished base, 4x9 inches.

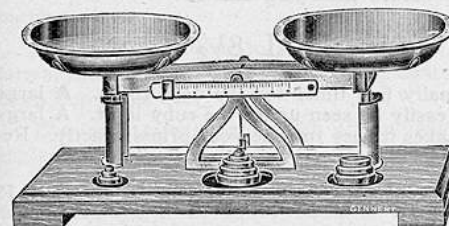
### Cat. No.

### PRICES

S-8A	Scale with Avoirdupois Weights.....	\$5.00
S-8M	Scale with Metric Weights.....	5.00
S-8AW	Extra Set of Avoirdupois Weights.....	Net .75
S-8MW	Extra Set of Metric Weights.....	Net .75 (H)

## S-5 and S-6 "Norwil" Photo Scale

On account of the larger pans of greater capacity are specially recommended for professional use. Both pans are removable for cleaning. A balance beam from 0 to 40 gr. facilitates the weighing of small amounts. The balancing beams are supported by carefully machined knife edges that eliminate the possibility of unequal friction. Supplied complete with weights (the No. S-5 up to and including 2 oz.—No. S-6, 4 oz.). All metal parts are lacquered brass supported on a highly polished hardwood base with depressed weight chambers.



	S-5	S-6
Length over all	12"	13¼"
Height over all	5"	5"
Diameter of pan	5"	6"
Depth of pan	¾"	¾"
Price	Net \$6.50	\$7.50

## T-65 Pelouze 60 Pound Scales

Rigid all steel construction. Attractively finished in black enamel and gold.

Seven and three-quarter inch enameled Vertical Dial, with large distinct black figures.

Double Upright Post Supports. Scoop. 9x16½ inches.

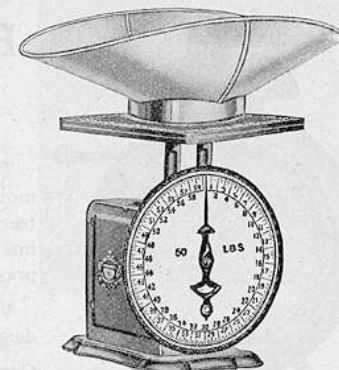
Size of Scale over all 5½x8½x15½ inches.

Capacity, 60 pounds by 2 ounce graduations.

No. T-65. Tin Scoop on platform.

Weight Boxed, 6 Pounds. Each Scale packed separately.

Price ..... Net \$5.25



No. T 65



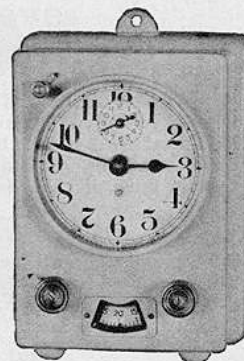
## "Norwil" Darkroom Clocks

Especially for Tank Development  
Interval Timer—A Good Clock  
Also  
A Dependable Twelve-Hour Alarm

It is:  
Attractive in design,  
Durable in construction,  
Convenient to operate,  
Handy in size,  
A faithful Reminder.

The clock hangs flat against the wall or sets on table near the work in hand. A turn of the knob at the right of the indicator dial sets the dial to the number of minutes exactly you want to elapse before the alarm rings; when the time is up it rings, until you come to it and stop the ringing by a finger touch of the lever at left of the indicator.

Cat. No. C-901.....Each (C) \$7.50



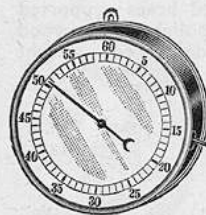
## "Norwil" Exposure Timer The Big Ben of the Dark Room

One that you can see

8½" DIAL 8½"

An exceptionally fine timer for the dark room. A large dial, 8½", can easily be seen under the ruby light. A large second hand makes it easy to time your prints exactly. Remember—an 8½" dial.

Cat. No. C-902.....Each (C) \$8.75



## Eagle "Interval" Timer

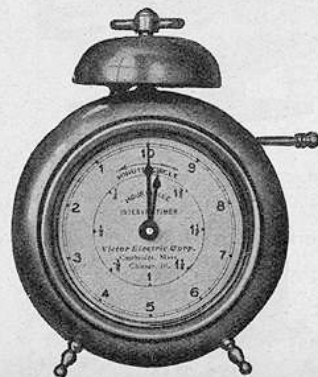
Seconds—Minutes—Hours

A Necessity for the Dark Room

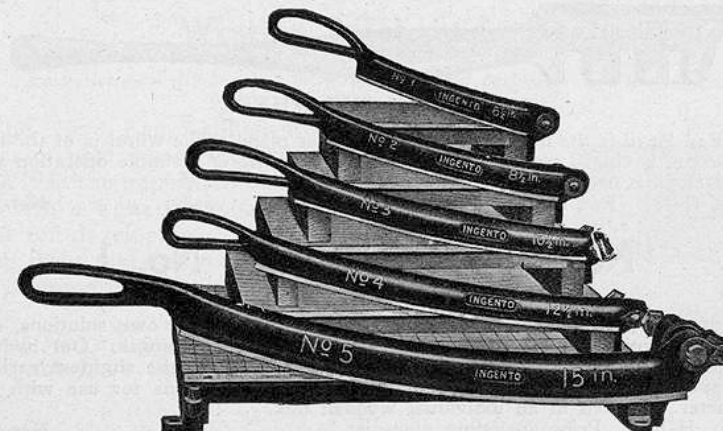
This little instrument will save you time and money. It may be set for any interval between fifteen seconds and two hours. At the end of the interval the alarm rings and the clock stops. By pressing a lever it is again set in action.

Very useful in the dark room for timing tank development and for enlarging work.

Cat. No. C-903.....Each \$5.00  
(A)



## Ingento Print and Paper Trimmers



This series of Ingento Cutters represents the very acme of perfection in trimming board manufacture. Not one point has been overlooked. This is a strong statement, but it is justified by fact.

### POINTS OF SUPERIORITY

The bed is of seasoned birch as wide as it is long. The supporting cleats are mitred into the bed to prevent warping. The bed is subdivided into half inch squares (except Nos. 5½ and 6) and is finished perfectly and highly polished.

The blades are of the finest tool steel, properly tempered to insure a perfect cutting edge.

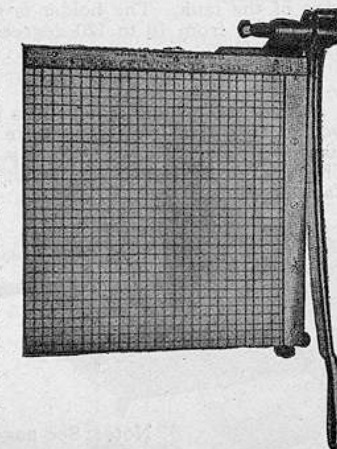
The spring joint is so constructed that it gives the movable blade a slight lateral motion. The two blades are in contact only where they cut. The result is clean cut edges every time.

The rule has one-eighth inch graduations and is set at a perfect right angle to the cutting edge.

The Nos. 5, 5½ and 6 cutters have a metal frame to which the lower blade is attached. This frame is part of the joint casting, making it impossible for the relative position of the blades to change.

Cat. No.	Prices
T-60-1 6½ inch blade.....	\$ 2.00
T-60-2 8½ inch blade.....	2.50
T-60-3 10½ inch blade.....	3.00
T-60-4 12½ inch blade.....	4.75
T-60-5 15 inch blade.....	11.00
T-60-5½ 18 inch blade.....	20.00
T-60-6 24½ inch blade.....	30.00

(G)





## Red Devil Glass Cutter



**"IT'S ALL IN THE WHEEL"**

The Red Devil is the most efficient glass cutter made. The wheel is of the finest carbon steel, having a true, sharp edge. Glass cutting is a simple operation when the Red Devil is used.

Cat. No. C-900. Red Devil Glass Cutter, each.....Net \$0.25

## "Norwil" Hydrometer No. 1

**GUARANTEED ACCURATE**

A hydrometer is an absolute necessity if you make up your own solutions, especially of soda mixtures, as different sodas vary greatly in strength. Our hydrometers have extra long tubes, which make them sensitive to the slightest variation in the specific gravity of the solution under test. Directions for use with each hydrometer. Packed in an individual wooden box.

Cat. No. H-10A. Price, including glass jar.....Net \$0.85

## "Norwil" Thermometers

### No. 1

This thermometer is made especially for photographic use. It is mounted on a metal plate which has two springs to hold it in the photographic tray so that the temperature of the bath may be ascertained while prints are being toned.

Cat. No. T-81.....(E) \$0.35

### No. 2

This thermometer is of the highest grade, equal in sensitiveness to a clinic thermometer. It is very convenient for ready use as it can be carried in the pocket. Supplied in a nickel-plated case with chain and safety pin attached.

Cat. No. T-82.....(E) \$1.00

### No. 3

This thermometer is particularly adapted for use with developing tanks. It is shaped so as to occupy the least possible space and has a hook for fastening to the edge of the tank. The holder is made of brass heavily silvered, will not corrode. Scale reads from 10 to 120 degrees Fahrenheit.

Cat. No. T-83.....(E) \$0.75

### No. 5

A high grade thermometer in a glass stirring rod. This combination enables the worker to watch the temperature at the same time that the chemicals are being dissolved. The "Norwil" No. 5 is 9¼ inches long and a quarter of an inch thick. The head is flattened for crushing any particles that do not dissolve readily.

Cat. No. T-84.....(E) \$1.00

## "Norwil" All Steel Cutter



As its name implies, an all steel cutter that is second to none in quality. Heavy enough to stand hard work and abuse. The table is marked off in half-inch squares and the knife is mounted on a self-mounted carrier that assures a clean square cut.

Cat. No. T-62—15 inch cutter....(F) \$15.00

Note: See page No. 85 for Ingento cutters.

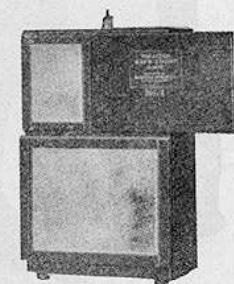
## DARK ROOM LAMPS

### Wratten Safelight Lamps

*Assure an even diffusion, as only reflected light passes through the safelight*

The No. 1 Lamp (illustrated) is fitted with a sheet of opal glass for white light illumination. This is in the upper half of the lamp and is closed off with a light tight shutter when safelight is used for developing. The lower portion of the lamp front takes an 8x10 safelight, affording ample illumination for the inspection of large negatives.

The No. 2 Lamp is similar to the No. 1, but it does not have the upper slide for flashed opal glass.



No. 1

Cat. No.	Price
L-300A No. 1 Wratten, including 8x10 Safelight, cord and plug.....	\$10.00
L-300B No. 2 Wratten, including 8x10 Safelight, cord and plug.....	8.00
L-300C Extra Safelight for Wratten Safelight Lamp, any series, each.....	1.25 (C)

### Kodak Safelight Lamp

Is equipped with a 5x7 series 1 safelight for use with film or plates not highly color sensitive. Other safelights may be obtained. Made of metal.



Cat. No. L-301A Lamp, including one safelight, cord and plug, but not 25 watt bulb.....\$3.50

Cat. No. L-301B Extra Safelights for Kodak Safelight Lamp, any series, each....\$0.75 (C)

### Eastman Safelight Lamp

May be attached to a drop cord or to a wall socket and makes an especially convenient overhead light.



The lamp takes a 5x7 Safelight, series 00 being supplied unless otherwise specified.

Cat. No. L-302 Including Safelight.....	\$3.00
Cat. No. L-301B Extra 5x7 Safelights, any series.....	.75 (C)

## No. 5 Dark Room Lamp

(Imported)

**Fits Any Ordinary Electric Socket**

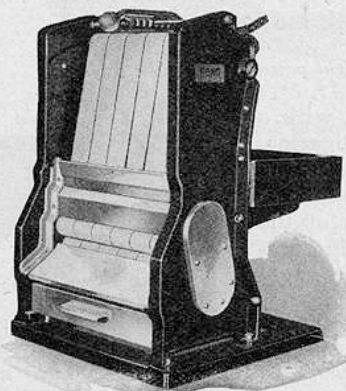
Simple to attach and absolutely safe. By far the best dark room lamp ever devised. The standard for a great number of years—and still at the old price.

Cat. No.	Price
L-303A Ruby Fixture complete.....	Net \$1.50
L-303B Amber Fixture complete.....	Net 1.50
L-303C Extra Ruby Globe.....	Net .85
L-303D Extra Amber Globe.....	Net .85





## PAKO Print Flattener



This machine is adapted for use by commercial finishers, commercial photographers, and portrait studios.

Its outstanding feature is ability to eliminate the curl of prints, large or small, without in any way impairing the print. Will take prints up to 10 inch size comfortably, and will take small prints as fast as they can be fed into the machine.

Exclusive feature of importance is the web moistener, which supplies a limited amount of moisture to the belts and so does away with cracking the emulsion.

Machine is instantly adjustable to prints having various degrees of curl—simple hand lever at top of machine makes this adjustment.

A slight reverse curl is easily given to prints for mounting.

Well made; thoroughly tested—in every respect a piece of STANDARD studio equipment worthy the Pa-kO trade mark.

Cat. No. F-80.....\$150.00

More detailed description furnished gladly on request.

## Sun-Ray Daylight Lamp

### Natural Daylight Adjacent to Your Print Room

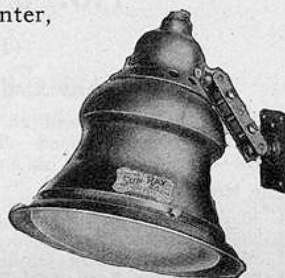
Just the light for retouching, examining prints, and showing prints to customers. Can't be beat for use when coloring photographs.

No need to walk to the doorway or window for daylight when you can quickly determine true colors right in your work rooms, on your counter, or desk with this lamp.

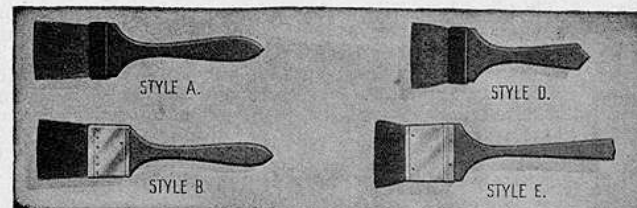
Cat. No. L-91A Reflector, glass, canopy, socket, wiring, plug and universal arm for wall use as illustrated .....\$10.75  
Use a 100 or 150 watt Mazda bulb with above.

Cat. No. L-91B Reflector and Lens only for use on any ordinary socket, over tables, desks, in the darkroom, and behind retouching stand.. 2.75

Cat. No. L-91C Desk Model complete with reflector, special daylight lens, stand and wiring 9.50



## Brushes



Our brushes are thoroughly reliable, neat and strongly bound. The hair and bristles used in them is of the highest grade and especially selected. Black bristles are recommended for pasting, as they readily show should they be pulled out.

### PRICES

#### Style A.

#### Black Bristle Brushes. Rubber Set.

Cat. No.	Each	Cat. No.	Each
B-10A 1 inch .....	\$0.40	B-10C 2 1/4 inches .....	\$0.90
B-10B 1 1/2 inch .....	.60	B-10D 3 inches .....	1.05

#### Style B.

#### Black Bristle Brushes. Tin Bound. Set in Cement.

Cat. No.	Each	Cat. No.	Each
B-11A 1 inch .....	\$0.20	B-11C 2 inches .....	\$0.40
B-11B 1 1/2 inch .....	.30	B-11D 2 1/2 inches .....	.55

#### Style D.

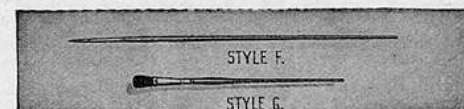
#### Camel's Hair Brushes. Rubber Set.

Cat. No.	Each	Cat. No.	Each
B-12A 1 inch .....	\$0.90	B-12D 2 1/2 inches .....	\$2.00
B-12B 1 1/2 inch .....	1.25	B-12E 3 inches .....	2.60
B-12C 2 inches .....	1.55	B-12F 3 1/2 inches .....	3.25

#### Style E.

#### Camel's Hair Brushes. Tin Bound. Set in Cement.

Cat. No.	Each	Cat. No.	Each
B-13A 1 inch .....	\$0.50	B-13D 2 1/2 inches .....	\$1.20
B-13B 1 1/2 inch .....	.65	B-13E 3 inches .....	1.40
B-13C 2 inches .....	.95		



#### Style F—Sable Pencil Brushes. Cat. No. B-14.

From No. 1 to No. 6.....	\$0.25	From No. 7 to No. 9.....	\$0.45
From No. 10 to No. 12.....	\$0.65		

#### Style G—Black Chisel-point Bristle Brushes.

Cat. No. B-15-1—1/4 inch.....	\$0.25	Cat. No. B-15-2—3/8 inch.....	\$0.35
Cat. No. B-15-3—1/2 inch.....	\$0.40		

All Brushes Discount (F)





## Bizzare Retouching Fluid

This is a liquid preparation of superior quality, for preparing the surface of negatives so that the lead of the retouching pencil will readily adhere to the negative.

It produces the finest possible surface for all grades of leads. Is easily applied to negatives and can be worked on within ten minutes after applying to negative.

Cat. No. R-22 Price, per bottle.....Net \$0.30

## Bordeaux's

### French Retouching Solution

You can retouch on the glass side just as well as on the film side, and can strengthen the negative after it has been retouched without in any way affecting the retouching by soaking the negative in water for ten minutes.

Sold for 30 years without a complaint.

Cat. No. R-23 Price, per bottle.....Net \$0.50

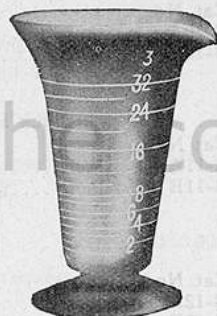


## "Norwil" Glass Graduates

These Graduates are specially made for photographic use. We guarantee them to be perfectly accurate. The lines and figures are etched on the outside.

Cat. No.	Price
G-50A 1 oz.....	\$0.35
G-50B 2 oz.....	.40
G-50C 4 oz.....	.50
G-50D 8 oz.....	.60
G-50E 16 oz.....	1.00
G-50F 32 oz.....	1.70
G-50G 60 minims.....	.50

(G)

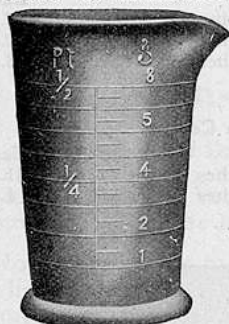


## Tumbler Graduates

These graduates have molded lines and figures and are accurately graduated.

Cat. No.	Price
G-51A 2 oz.....	\$0.12
G-51B 4 oz.....	.15
G-51C 8 oz.....	.20
G-51D 16 oz.....	.30
G-51E 32 oz.....	.60

(G)



## Measuring Jug

This jug with handle is made of flint glass in the shape of a pitcher, and has graduations up to 32 ounces. Cat. No. G-52A.....\$1.00

(G)

## Glass Funnels

The fluted funnels have solid glass ribs on the inside, permitting the solution to descend freely after passing through the filter paper. Sizes moulded on each funnel.

Cat. No.	Price	Cat. No.	Price
F-90A 1/4 pint.....	\$0.25	F-90D 1 quart.....	\$0.60
F-90B 1/2 pint.....	.30	F-90E 1/2 gallon.....	.90
F-90C 1 pint.....	.40	F-90F Handy—2 oz.....	.20

(G)

## Ground Glass

### Satin Finish

	Net each	Net per doz.
5 x 7 .....	\$0.25	\$2.00
5 x 8 .....	.30	2.20
6 1/2 x 8 1/2 .....	.30	2.20
8 x 10 .....	.35	2.80
10 x 10 .....	.45	3.40
10 x 12 .....	.55	4.40
11 x 14 .....	.75	6.00

Packed Dozen Sheets to Box.

Larger Sizes Quoted Upon Application.

## Ruby and Orange Glass

	Net each	Net per doz.
4 x 5 .....	\$0.20	\$1.60
5 x 7 .....	.25	1.80
6 1/2 x 8 1/2 .....	.35	2.40
8 x 10 .....	.40	3.20
10 x 12 .....	.50	3.90
11 x 14 .....	.65	5.20

Packed Dozen Sheets to Box.

(Also See Wratten Safe Lights.)

## Flashed Opal Glass

	Net each
5x 7 .....	\$0.50
7x 7 .....	.50
8x10 .....	.60
10x10 .....	.70
10x12 .....	.70
11x14 .....	1.20
14x14 .....	1.60
14x17 .....	1.80

## Post Office Paper

A safe paper for covering lights used in enlarging or lantern slide work.

Size sheets, 20x26 inches.....	Net per doz.	Per 500
	\$0.25	\$8.50

## Cepa Paper

A tough tissue for use in vignetting or diffusing.

Size, 19x24 inches .....	Net per doz.	Per 500
	\$0.25	\$7.00

## Orange and Ruby Fabric

Selected color, a good stout fabric.

Width, 36 inches, per yard.....Net \$1.00

## Filter Cotton

For laboratory use, net, per pkg., 4 oz.—\$0.50; 1 lb.—\$1.50.

## Passe-Partout Adhesive Tape

Rolls, 12 yds. long, 7/8 inch wide, all colors.....Net \$0.15

## Binding Strips

100 strips to box.....Net \$0.25



# **"ORDER FROM NORMAN-WILLETS" CHICAGO**

## **PUSH PINS (Moore's)**



They consist of round tapered steel points, which are firmly embedded in transparent, crystal glass heads. They are strong and ornamental; supplied in packages of 6 pins.



	List each	Net each	Net dozen
No. 2 Per package of 6 pins, either size.....	\$0.10	\$0.08	\$0.80

## **PUSH POINTS (Moore's)**

The points are of hardened needle steel, and the heads of crystal glass. Excellent for drying prints and films.

	List each	Net each	Net dozen
Price, per box of 24.....	\$0.10	\$0.08	\$0.80

## **PUSHLESS HANGERS (Moore's)**



This hanger consists of a tool-tempered steel point combined with a scientifically constructed brass hook. It solves the problem of hanging the heaviest pictures without disfiguring the walls. No. 25 will sustain 20 pounds. No. 28 will sustain 150 pounds. Neat and practical.

Cat. No.	List each	Net each	Net dozen
M-24 Packet of 10, small size.....	\$0.10	\$0.08	\$0.80
M-25 Packet of 6, medium size.....	.10	.08	.80
M-27 Packet of 3, as shown.....	.10	.08	.80
M-28 Packet of 2, largest size.....	.10	.08	.80

## **CUT-OUT THUMB TACKS (Moore's)**

These are good quality. One Piece (Cut-Out), Nickel Plated Thumbtacks with Sharp, Strong Points.

Cat. No.	List each	Net each	Net dozen
M-41 $\frac{3}{8}$ in.—36 tacks to Box.....	\$0.10	\$0.08	\$0.80
M-42 $\frac{1}{2}$ in.—30 tacks to Box.....	.10	.08	.80
M-43 $\frac{1}{2}$ in.—24 tacks to Box.....	.10	.08	.80

## **PUSH THUMB TACKS (Moore's)**

These special grade tool-tempered steel points will not turn over or break, and are so smooth and tapered they will not injure anything into which they are pushed.

For home decoration and for draughtsmen, architects, etc.  
No. 31,  $\frac{3}{8}$  inch; No. 32,  $\frac{1}{2}$  inch; No. 33,  $\frac{5}{8}$  inch. Flat polished brass head.

Cat. No.	List each	Net each	Net dozen
M-31 Per block of 12 tacks.....	\$0.10	\$0.08	\$0.80
M-32 Per block of 10 tacks.....	.10	.08	.80
M-33 Per block of 8 tacks.....	.10	.08	.80

## **Safety Trimmer**

The handy tool in the studio.  
Uses old razor blades.  
Cuts single or double weight paper.  
Cat. No. T-61—Price..... Net \$0.75



# **"ORDER FROM NORMAN-WILLETS" CHICAGO**

## **PAPER SUNDRIES** **Photographic Blotting Paper**

These blotters are made of pure cotton and heavily calendered. They contain no clay, hypo or other chemicals, but are absolutely chemically pure. Made especially for photographic use. We guarantee their chemical and absorbent qualities superior to any other photographic blotters on the market. The World Blotter has a national reputation, and the trade-mark is stamped on each sheet. We are the agents for the photographic trade for this brand.

	Net Per Dozen	Net Per 1/4 Ream	Net Per 1/2 Ream	Net Per Ream
World Blotter 100 lb. weight, 19x24 inches.....	\$0.75	\$6.75	\$12.00	\$20.00
World Blotter 120 lb. weight, 19x24 inches.....	.85	7.00	13.00	24.00
Linen Finish Blotter 80 lb. weight, 19x24 in.....	.70	6.00	11.50	19.00

(480 sheets to ream)

## **World Blotters in Rolls**

Roll, 19 in. wide, weight, 100 lbs. (approx.), length 250 feet (approx.), per lb.....	Net \$0.24
Roll, 19 in. wide, weight 120 lbs. (approx.), length 250 feet (approx.), per lb.....	Net .26

## **Mailing Envelopes**

### **MANILLA OR KRAFT**

No.	Size	Correct Weight of Paper	Net Price per 100	Net Price per 500	Net Price per 1000	No.	Size	Correct Weight of Paper	Net Price per 100	Net Price per 500	Net Price per 1000
0	4 1/2 x 6 3/4	28 lb.	\$0.50	\$1.60	\$2.50	8	7 1/2 x 10 1/2	28 lb.	\$0.85	\$2.50	\$4.25
1	5 1/2 x 7 1/2	20 lb.	.45	1.30	2.10	9	8 1/2 x 10 1/2	28 lb.	1.15	3.00	5.45
2	5 1/2 x 7 1/2	28 lb.	.55	1.65	2.60	11	10 1/2 x 12 1/2	28 lb.	1.65	4.65	8.45
4	6 1/2 x 8 3/4	28 lb.	.75	2.05	3.40	12	11 1/2 x 14 1/2	28 lb.	2.00	5.50	9.95
5	7 x 9	20 lb.	.65	2.10	3.45	13	14 1/2 x 17 1/2	28 lb.	3.95	12.20	21.50
6	7 x 9	28 lb.	.80	2.30	3.95						

## **Negative Preservers**

These envelopes are made of strong manilla paper, the proper size for the negative, and are printed.

### **PRICES**

Size	Net Per 100	Net Per 500	Net Per 1000	Size	Net Per 100	Net Per 500	Net Per 1000
3 1/4 x 4 1/4.....	\$0.35	\$1.10	\$1.80	6 1/2 x 8 1/2.....	\$0.70	\$2.00	\$3.85
3 1/4 x 5 1/2.....	.45	1.30	2.20	8 x 10.....	.75	3.00	5.25
4 x 5.....	.45	1.25	2.10	10 x 12.....	1.25	5.25	9.75
4 1/4 x 6 1/2.....	.55	1.55	2.85	11 x 14.....	1.50	5.95	10.75
5 x 7.....	.55	1.50	2.80	14 x 17.....	2.45	10.05	18.50
5 x 8.....	.60	2.05	3.50				

## **Double Negative Pockets**

These pockets are made of strong stock and offer the amateur an excellent method for preserving both negatives and prints. They make excellent delivery envelopes for finishers.

### **PRICES**

	Net Per 100	1,000	5,000	10,000	25,000	50,000
No. 3 4 1/2 x 6 1/2 Kraft, 28 lb..	1.00	\$5.75	\$5.00	\$4.30	\$4.00	\$3.85
No. 3-O. Olive Green, 28 lb..	1.10	8.00	6.05	5.10	4.50	4.30
No. 3-G. Grey, 28 lb.....	1.10	8.00	6.05	5.10	4.50	4.30

## **Proof Envelopes**

### **ORANGE COLORED (NON-ACTINIC)**

No.	Size	Open Side	Net per 100	500	1,000	5,000
No. 7 4 1/8 x 6 3/4	Open Side	.....	\$0.50	\$1.65	\$2.80	\$2.40
No. 7 1/2 4 7/8 x 6 3/8	Open End	.....	.45	1.45	2.55	2.30

### **KRAFT (NON-ACTINIC)**

No.	Size	Open Side	Net per 100	500	1,000	5,000
No. 7 4 1/8 x 6 3/4	Open Side	.....	\$0.55	\$1.70	\$2.95	\$2.40
No. 7 1/2 4 7/8 x 6 3/8	Open End	.....	.45	1.40	2.45	2.25
No. 8 5 1/2 x 8 3/4	Open End	.....	.85	2.50	4.10	3.90
No. 9 8 1/2 x 10 1/2	Open End	.....	1.25	3.65	6.80	6.65





## Norwil "Jiffy" Apron

Put on or Take off Instantly

for the

Photographer, Finisher or

Dark Room Worker

A rubber apron that can be put on and taken off in a "jiffy," as its name implies. A flexible metal band at the waist automatically holds the apron snugly to the body eliminating the laborious task of tying and untying the straps back of you. The unique "Jiffy" apron relieves exasperation. The rubber sheeting used is of excellent gum quality and the apron can be folded flat.

### PRICES

Cat. No.

A-30B with Bib.....\$1.50

A-30W without Bib.....1.25  
(G)

## The "Yale Cloth"

The "Yale Cloth" is a prepared squeegee cloth, especially made for CLEANING and CONDITIONING ferrotype plates. It does this work quickly and efficiently; keeps the plates in good condition, prevents sticky prints, cuts out lots of work and grief. One cloth is good for many months of service. Cat. No. C-905.....\$1.00 net.

## Probus Enamel

Probus is an acid, alkali, and water-proof paint. It is indispensable to the photographer, being adapted for coating trays, tanks and fixing boxes; painting dark room walls, shelves and floors, or waterproofing homemade trays. This article is supplied in liquid form ready to use, is jet black in color, easily applied and dries quickly with a durable, bright gloss.

Cat. No. Prices

E-90A ½-pint can .....\$0.45

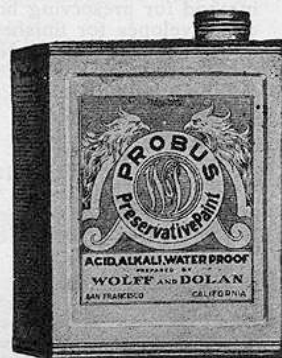
E-90B pint can ..... .80

E-90C quart can ..... 1.25

E-90D ½-gallon can ..... 2.05

E-90E 1-gallon can ..... 3.75

(C)



## Infallible Tinting Masks

for

Studio and Commercial Use

The INFALLIBLE Tinting Mask is a new and practical Mask for obtaining artistic borders on all kinds of photographic paper. Any developing or printing-out paper or carbon tissue, can be tinted with absolute accuracy.

The complete INFALLIBLE Tinting Mask consists of the tinter, the negative mask and two supplementary masks, with which three entirely distinct designs can be readily produced, making it practically three Masks in one.

They are made of glass, with passe partout edges, in the following outside sizes, to fit printing frames of a corresponding size: 5x7, 6½x8½, 8x10, 10x12, 11x14 and 14x17.

(The latter size is not carried in stock, however orders will be accepted for shipment direct from the factory.)

Each Mask is made in various sized openings; in ovals, squares and circles. All Masks are warranted to be absolutely accurate by the manufacturer. These Masks are made in sizes suitable for professional portrait work, and also for amateur and commercial use. Easy and accurate registration is an "INFALLIBLE" feature.

The user of the INFALLIBLE Mask can greatly enhance the beauty of his prints, as well as their commercial value.

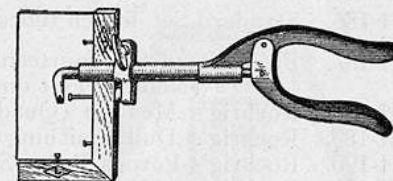
Write for a special catalogue describing these Masks in detail.

## Rochester Fitting Tool

For Picture Framing

Rochester Fitting Tool Is

Indispensable for fitting frames made of narrow mouldings. The gauge can be adjusted so that it is impossible to force the nails through, as may happen with the hammer.



Made of pressed steel, nickel plated. Concealed in the barrel is a spring to force the jaws apart. A leather buffer is provided to protect the backs of frames from injury. No delicate parts to get out of order.

It is a powerful, well made tool and should last a lifetime.

No framing shop is properly equipped without this tool in the hands of each fitter. Cat. No. T-82.....Net \$2.50

## Studio Register



This register provides a depth of three lines to each entry, which permits easy reference to negative numbers, an item of the number of negatives finished, their sizes, and the entry of each address in one space as it would appear on an envelope. There is also ample space for entering orders of several items and partial payments.

The pages are made of the best linen ledger paper. The book is strongly bound with leather back and corners, and it is indexed for quick reference.

Cat. No.

R-90A1.....Price

R-90B2.....Net \$5.00

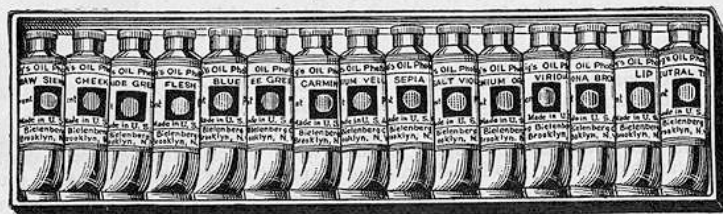
Net 6.00



"ORDER FROM NORMAN-WILLETS" CHICAGO

## Roehrig's Photo Oil Colors

(Transparent)



Roehrig's Standard Set

Roehrig's Transparent Photo Oil Colors offer a simple and effective means for beautifying an ordinary picture. Color gives life to the print and the ease with which any print can be colored is a revelation to those who have not tried it. One does not have to be an artist to use these wonderful colors effectively. They are transparent, so that every detail in the picture shows. In addition, they are brilliant and permanent. Roehrig colors are the standard of the world.

They are especially prepared to color all kinds of photographs and other pictures. They are simply applied, and may be easily handled by amateurs.

There are fifteen colors: Flesh, Cheek, Lip, Carmine, Blue, Cadmium Yellow, Cadmium Orange, Tree Green, Oxide Green, Viridian, Cobalt Violet, Raw Sienna, Sepia, Verona Brown, and Neutral Tint.

H-186. Standard Set, fifteen tubes, 1/2 by 2 inch.....\$2.60

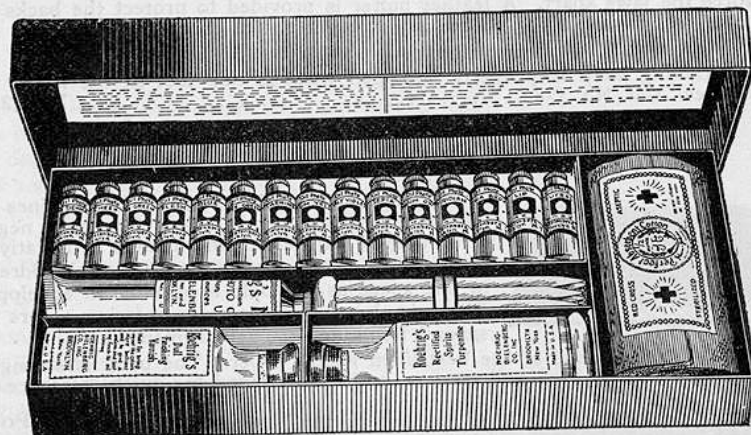
H-187. Professional Set, fourteen tubes, 3/4 by 4 inch..... 7.80  
(Neutral Tint omitted in this set.)

H-188. Roehrig's Medium (Quadruple Tube).....Net .60

H-189. Roehrig's Dull Finishing Varnish (2 oz. bottle).....Net .50

H-190. Roehrig's Porous Paper Size (Quadruple tube).....Net .30

H-191. Roehrig's complete outfit (see cut below for contents).. 3.90



Roehrig's Complete Outfit

"ORDER FROM NORMAN-WILLETS" CHICAGO

## Lavette Photo Mailing Envelopes

insure absolute protection against breaking and folding of Photographs in the mails

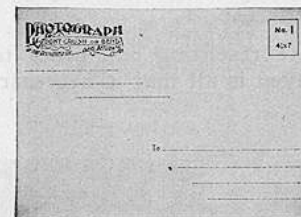


Fig. 1



Fig. 2

Lavette Patent Photo Mailing Envelopes are made with a high grade pressure resisting 60-lb. Manilla paper, reinforced by two separate pieces of pulp board, one on each side of the photo. Figure 2 represents the envelope open with the photograph inserted, to seal, fold flap B over the folder and seal gummed flaps A, this gives you the safety package illustrated in Figure 1.

## The Silent Salesman Is Always at Work

### REGULAR STOCK AND SIZES

No.	Inches	Quantity in Box	Price per 100
1	4 1/2 x 7	100	\$ 3.50
2	5 3/4 x 7 3/4	100	5.10
3	6 x 8 1/2	100	6.50
4	8 3/4 x 10 3/4	50	9.75
5	6 x 10 1/2	100	7.25
6	8 1/2 x 11 1/2	50	10.90
7	8 3/4 x 13	50	11.40
8	7 x 9 1/2	100	7.50
9	12 x 14 1/2	50	18.80
10	10 x 12	50	13.40

(Less Box Lots—G)  
(Box Lots—I)



No. 2 Display case containing 60 envelopes. One half dozen of each size from

Nos. 1 to 10.....\$7.80(I)

No. 1—Display box containing 60 envelopes or 1 dozen Nos. 1, 2, 3, 4 and 8.....\$6.00(I)

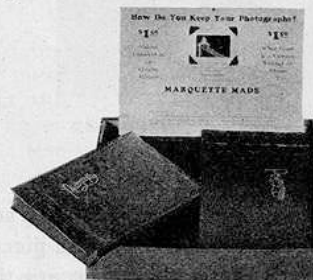


## PERFECTO ALBUMS

An Album for Every Purpose

The Perfecto Line of Albums is no doubt the most complete on the market. Each one has been designed with the greatest of care and thought.

They are the best values obtainable, representing real profit to the dealer. An assortment attractively displayed is all that is necessary for a quick turnover.

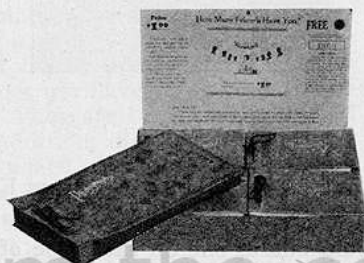


**Perfecto Set—Cat. No. A-101**

Consisting of

6—7x10 Assorted Albums. Colors: 2 Black, 2 Red, 2 Blue.

Retail value...\$9.00 Net cost...\$4.50



**Perfecto Set—Cat. No. A-102**

Consisting of

12—4 3/4 x 6 1/4 Autograph Albums. 4 Green, 4 Purple, 4 Blue.

Retail value...\$12.00 Net cost...\$7.00

### Perfecto Regular Albums (Loose Leaf), 50 Leaves

Cloth Binding

Size	Black Linen	Black Moire	Price
5 1/2 x 7	No. 1150	No. A1150	\$0.95
7 x 10	No. 1152	No. A1152	1.15
10 x 12	No. 1154	No. A1154	1.80
11 x 14	No. 1156	No. A1156	2.25

### Special Cloth Covered

Size	List
7x10 (only) No. 002 Black, Green and Brown	\$1.00

### Imitation Leather Binding

Size	Seal Grain	Walrus Grain	Price
5 1/2 x 7	No. 1250	No. 1260	\$1.00
7 x 10	No. 1252	No. 1262	1.40
10 x 12	No. 1254	No. 1264	2.10
11 x 14	No. 1256	No. 1266	2.60

### Genuine Leather Binding

Size	Seal Grain	Walrus Grain	Price
5 1/2 x 7	No. 1350	No. 1360	\$1.50
7 x 10	No. 1352	No. 1362	2.10
10 x 12	No. 1354	No. 1364	3.10
11 x 14	No. 1356	No. 1366	4.00

### Special Albums

"My Memories"

7x10	No. 842—Kraft Leather	\$2.50
10x12	No. 844—Floral Leather	3.50
7x10	No. 848—Floral Leather	2.50

## PERFECTO ALBUMS

Special Albums (cont'd.)

### "My Hours of Golden Memories"

7x10	No. 003—English Linen	\$1.50
10x12	No. 004—English Linen	2.50
7x10	No. 830—Seal Grain Leatherette	1.75
10x12	No. 832—Seal Grain Leatherette	2.50
7x10	No. 834—Long Grain Leather	2.50
10x12	No. 836—Long Grain Leather	3.75
9x14	No. 880—Brown Kraft Leatherette	4.00
9x14	No. 882—Blue Kraft Leatherette	4.00
9x14	No. 886—Genuine Morocco Leather	6.00
9x14	No. 884—Gold Stamped Leatherette (a lower priced cover, Gold Stamped "My Hours of Golden Memories" only and design a trifle different)	3.00

### "My Graduation Memories"

7x10	No. 890—Blue Kraft Leatherette	\$3.00
7x10	No. 891—Brown Kraft Leatherette (extra fine cover)	3.50
7x10	No. 892—Green Kraft Leatherette	3.00
7x10	No. 893—White Kraft Leatherette (extra fine cover)	3.50
7x10	No. 894—Grey Fabric (design embossed in blank)	2.50
7x10	No. 895—Green Cloth, Gold Stamped	2.00
7x10	No. 896—Genuine Pink Suede Leather, Gold Stamped	4.00
7x10	No. 897—Red Cloth, Gold Stamped	2.00
7x10	No. 899—Blue Cloth, Gold Stamped	2.00
7x10	No. 898—Genuine Blue Suede Leather, Gold Stamped	4.00
7x10	No. 900—White Kraft Leatherette	3.00

### "Our Baby"

9x14	No. 925—Black English Linen	\$1.50
9x14	No. 950—Kraft Leatherette, Richly Colored and Embossed	2.50
9x14	No. 960—High Grade Blue Suede Leather, Gold Stamped	4.00
9x14	No. 970—High Grade Pink Suede Leather, Gold Stamped	4.00

### "Recipe Cook Scrap Book"

7x10	No. 825—Containing 100 pages	\$2.00
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Discounts: Less than dozen lots, 40%; Dozen lots, 50%.  
Descriptive Circular of All Albums Upon Request.

## Art Corners

The Silent Salesman for Engel's  
Art Corners



DISPLAY ASSORTMENT (Nos. 1 and 2)—Merchandise well displayed is half sold. Every dealer should use this display box to increase his Engel's Corner sales. It is so constructed that each style is displayed and easy to deliver. The Engel display cases are supplied containing two assortments.

### ART CORNERS—Engel's (Round, Square, Oval, Heart, Fancy and New Style No. 51)

Colors—Light and Dark Gray, White, Black and Sepia.	
Per package of 100, any color	\$0.10
Per package of 50, either gold or silver	.10
In less than dozen package lots the discount will be 20%; dozen packages as sorted, 30%.	
Box of 50 ten cent packages, net, 1 to 9 boxes	3.00
In 10 box lots or over, per box, net	2.85
No. 1, Display Box of 100 pkgs., Black Assorted and 5 pkgs. Art Titles, retail \$10.50, net	6.00
No. 2, Display Box of 100 pkgs., Assorted Colors and 5 pkgs. Art Titles, retail \$10.50, net	6.00



## Victor Intensifier

One Simple Solution



Print obtained from the half of the negative which had been intensified for 1½ minutes in Victor Intensifier.

This side shows print obtained from the half of the negative which was not intensified.

Powerful, Permanent, Easy to Work, Inexpensive. Is unequalled for building up negatives in which the detail has not been brought up to proper printing density by development.

Will intensify very strongly, yet any degree of density can be given, from very slight—produced in 2 or 3 seconds—to very strong, as shown above.

It can be applied locally with cotton to strengthen certain parts of the negatives.

It keeps indefinitely and can be used repeatedly until consumed.

### PRICES—Powdered

	Per tube
No. 1 Powder, makes 4 ozs.....	Net \$0.25
No. 2 Powder, makes 8 ozs.....	Net .45
No. 3 Powder, makes 16 ozs.....	Net .85



## Higgins' Vegetable Glue

This is a semi-fluid adhesive of great strength and body; it adheres quickly and dries rapidly. It will be found of especial value in the photographer's workroom and for general use. It is unequalled for sticking paper or cloth to paper, wood, leather, glass or metal. Warranted to keep in perfect condition for an indefinite time and to never smell offensively.

Put up in square self-sealing cans.

Cat. No.	Size	Price
H-276.	½-lb. can .....	Net \$0.25
H-277.	1-lb. can .....	Net .45
H-278.	2-lb. can .....	(C) .65
H-279.	5-lb. can .....	(E) 1.50

## Cameo Photo Paste

CLEANEST IN THE WORLD

Economical because it does Better Work and Goes Farther. A pure white fragrant Library Paste made of the purest gum, and is of highest tenacity.

ALWAYS SOFT WILL NOT MOLD NOT INJURIOUS  
NO WATER NEEDED

Used in the Largest Offices and by the leading Commercial Artists and Photographers. Insist on having it.

Cameo Photo-Paste is a smooth working, quick drying, pure white adhesive, which contains a very small percentage of water and is far superior to ordinary paste, because it dries more rapidly, adheres more quickly and does not tend to stain, warp or soak into the surface to which it is applied. While non-fluid in form, it is easily applied as it becomes self-moistened when worked with a brush.

These features make it especially desirable for photographers, manufacturers of stationery goods, binders, printing and newspaper offices, schools, colleges and general use.

It is packed in glass jars with screw tops and in self-sealing stone jars.



### PRICES

4 oz. glass Jars.....	Net \$0.20
8 oz. glass Jars .....	Net .35
16 oz. glass Jars .....	Net .65
32 oz. glass Jars (1 quart).....	(C) 1.00
1 gal. stone Jar.....	(F) 3.75

## Probus Print Lustre

This new Probus Product adds brilliancy and depth to the shadows, and gives a lustrous finish to all grades of developing papers and bromide prints. It helps detail wonderfully and is especially effective on sepia toned or re-developed prints. Invaluable for cleaning soiled photographs or renovating old prints for copying. Unequaled as a negative varnish and retouching medium.

Half Pint Can.....Net \$0.65

## LePages Glue

Round Cans—Friction Top

1 pint can .....	Net \$0.85	Pencils, each .....	Net \$0.30
1 quart can .....	(C) 1.50	Pencils, dozen .....	Net 2.40



## Ringer's Retouching Desk

Scientifically Designed  
Substantially Built  
Beautifully Finished



It is generally advocated doing the retouching in the reception room. This desk makes it practical, convenient and desirable to do so. It not only saves time where the retoucher is the receptionist but the public soon becomes familiar with the retouching process.

When a customer sees the retoucher working with the fine pointed pencil or the etching knife he has a higher estimate of the art of photography. He no longer looks upon portrait photography as mechanical routine, but as the work of a skilled artist.

### DETAILS

Light can be instantly adjusted to any degree of brightness to suit density of the part of the negative worked upon.

Can be used without inconvenience in open light room and tends to eliminate the eye strain of the retoucher.

Negatives can be instantly adjusted to any angle.

Desk is built to give free natural arm movement in retouching without tiring.

Ample pigeon holes for all size negatives up to and including 11x14 as well as all retouching materials. One side for incoming work and the other for finished work.

Your retoucher, who is a potential factor, will do better, neater work with a desk like this than an improvised contrivance.

	Desk		Stool	
	Cat. No.	Price	Cat. No.	Price
Golden Oak .....	R-20G	\$59.00	R-21G	\$5.90
Mahogany .....	R-20M	64.00	R-21M	6.40
Walnut .....	R-20W	68.00	R-21W	6.80

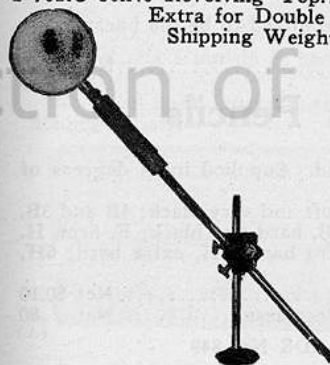
Monthly Payment Plan or 5% Cash Discount.

## Paasche New Improved Air Brush Easel and Drawing Tables

Adjustable for a standing or sitting position. This table is made entirely of metal, except the top. It is enameled and makes a splendid appearance. The top is made of three-ply basswood, revolves into any position whatsoever, and is quickly detachable. Only practical combination drawing board or easel with friction revolving top that can be tilted, raised or lowered without unscrewing or tightening of bolts and nuts. Has all the features found in the highest priced tables. It is making a hit everywhere. Does not wobble. An ideal Easel. Table that should be in every school, office, studio, show-card shop, dept. store, etc., etc.



Cat. No.	Net	Cat. No.	Net
T-70RA 22x30 Revolving Top...	\$16.00	T-70SA 22x30 Stationary Top...	\$14.00
T-70RB 24x36 Revolving Top...	18.00	T-70SB 24x36 Stationary Top...	16.00
T-70RC 30x40 Revolving Top...	20.00	T-70SC 30x40 Stationary Top...	18.00
Extra for Double Swinging Arm and Material Drawer.			
Shipping Weight K. D. Crated.....60 lbs.			



## Barré Retouching Lens Holder

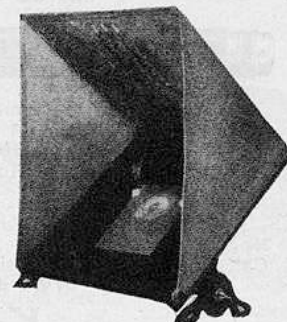
With the Barré Retouching Lens Support, you can adjust the retouching glass readily and hold it firmly in any desired position. It leaves both hands free and is, therefore, the most useful device of its kind on the market. All metal construction—strong and durable. You need it.

Cat. No. H-14—Price, \$3.00 (C)

## Century Folding Retouching Frame

This frame accommodates negatives of any size up to 11x14. With its light excluding canvas hood, and its wood base, this frame is serviceable and light and folds compactly. Pockets in the canvas top afford an accessible holder for pencils and etching tools. The angle of the negative platform is easily adjusted to the position most convenient for the worker. Rubber tipped fingers hold the negative firmly in place.

Cat. No. F-901—Price.....(C) \$4.75



## Hammer's Retouching Varnish

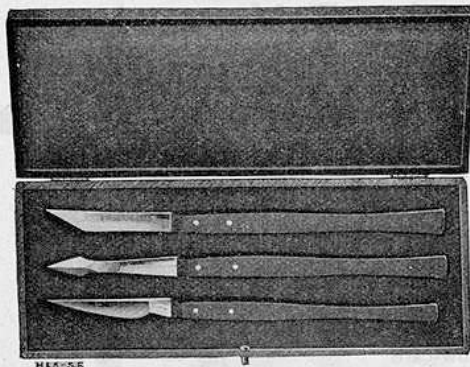
### PRICES

8-ounce bottle .....	\$0.35
16-ounce bottle .....	.60

Note: See page No. 90 for other Retouching Fluid.



## Damascus Etching Set



This set, which consists of three knives, is designed for every phase of etching, from the finest hair lines to the broadest sketchy effects.

The knives are contained in a substantial cloth-lined case. They are made of the very finest steel, tempered to exactly the right degree of hardness, carefully ground and edged; they have ebonized wood handles.

Cat. No. E-91 Per set (C) \$2.25

## The Premier Etcher

FINEST STEEL

HIGHLY TEMPERED



An indispensable article for the studio and guaranteed to be the finest grade etcher obtainable.

Cat. No. E-92.....Net \$1.50 (A)

## Faber and Venus Pencils

No. 3800

Hexagon, green watermarked, stamped in gold. Supplied in 14 degrees of hardness as follows:

6B, extra soft and very deep black; 5B, extra soft and very black; 4B and 3B, very soft and very black; 2B, soft and black; HB, hard and black; F, firm, H, hard; 2H, medium hard; 3H, very hard; 4H extra hard; 5H, extra hard; 6H, extra, extra hard.

Cat. No. L-800. Faber and Venus Pencils, each.....Net \$0.10

Faber and Venus Pencils, doz. lots asst.....Net .80 (A)

VENUS HOLDERS AND LEADS No. 849



Hexagon, green watermarked, stamped in gold, celluloid tips, with one movable lead. Supplied in 14 degrees of hardness, same as No. 3800.

Cat. No. L-815. Venus Holder and one Lead.....Net \$0.35

Cat. No. L-816. Faber Holder and one Lead.....Net .40 (A)

VENUS LEADS No. 842

Leads to fit the above holders supplied in 14 degrees of hardness, same as No. 3800.

Cat. No. L-830. Box of six Faber or Venus Leads, one grade.....Net \$0.50 (We do not break boxes of six leads.) (A)

## Koh-i-nor Pencils

The famous Austrian (now Czecho-Slovakia) Pencil.

Leads or pencils from 1H to 5H, F, HB to 3B.....Net 15c each; 2 for \$0.25

Per dozen.....Net 1.40

Holders with one lead, each.....Net .48

WOLFF CARBON PENCIL (all degrees of hardness).....\$0.15 (A)

## Victor Spotting Colors

Furnish ideal color mediums for spotting or retouching photographic prints of all tones.

They are put up on celluloid sheets in very convenient form, and also in opal glass jars. Color is picked up direct from these sheets or jars by means of a moistened spotting brush. All the colors dissolve readily, and adhere perfectly when applied to the print.

The Black will dissolve more readily than India Ink and will adhere better to the print.

The Brown and Sepia are correct shades, true to name, and are not merely two shades of red.

More color is supplied in these sets than in any other on the market, making them the least expensive as well as the best and most convenient to use.

The color is put in the No. 2 size jars in moist condition and sealed in, so as to reach you in the best condition for use. Jars also protect colors from dust or contamination after being opened.

### PRICES

- No. 0. Black, photo brown, and sepia shades, per set .....Net \$0.20
- No. 1. Black, white, photo brown, and sepia, per set .....Net .45
- No. 2. Black, white, photo brown, and sepia, per set .....Net .80
- No. 2. Any single shade, each.....Net .20

Nos. 0 and 1 put up in cardboard boxes containing 1 doz. sets.

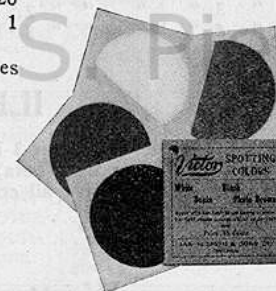
No. 2 put up in hinged boxes holding 1 set or in boxes holding 12 jars.



No. 2 Set



No. 0 Set



No. 1 Set

## Victor and Alvord's Opaque

These are the most excellent preparations for blocking any part of a negative. In smooth paste form and easily diluted with water to a proper consistency for application with either a soft brush or pen. Keeps in excellent condition indefinitely.

They produce a thin, yet smooth, hard coating of perfect opacity. Does not crack, peel, chip or rub off; but, when desired, it can be entirely washed off, leaving a clean, unstained negative.

Commercial photographers will find them indispensable in blocking out undesired parts of machinery, backgrounds, etc.

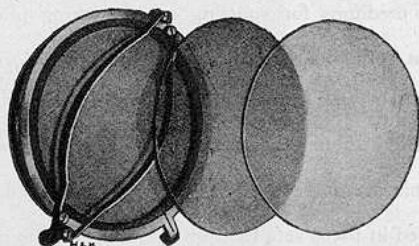
- | Victor Cat. No. | Alvord's Cat. No. |           |                          |            |
|-----------------|-------------------|-----------|--------------------------|------------|
| O-51A           | O-52A             | No. 0— 1  | oz. Opal glass jars..... | Net \$0.25 |
| O-51B           | O-52B             | No. 1— 2½ | oz. Opal glass jars..... | Net .50    |
| O-51C           | O-52C             | No. 2— 7  | oz. Opal glass jars..... | (B) 1.00   |
| O-51D           | O-52D             | No. 3— 20 | oz. Opal glass jars..... | (C) 2.00   |

Orders for 12 No. 3 Size, either brand (I) Discount.





## Barre' Adjustable Color Filters



The newest as well as the most convenient and practical color filter. It consists of three screens made of optically plane glass, light, medium and dark, increasing the exposure three, six, and ten times, respectively, when used with Orthochromatic, Isochromatic, or other color sensitive plates.

When not in use, all the screens may be carried in the holder, which consists of a threaded metal ring with collar and an ingenious spring catch, by means of which the screen is instantly fastened to the lens.

### PRICES

No. 0 for lenses up to $\frac{3}{4}$ diam.....	\$2.00
" 1 " " " $\frac{13}{8}$ diam.....	2.25
" 2 " " " $\frac{15}{8}$ diam.....	2.75
" 3 " " " $2\frac{1}{8}$ diam.....	3.25
" 4 " " " 3 diam.....	4.75 (E)

## ILFORD Color Filters

Are made of gelatin 3 inches square. The "tri-color" set consisting of red, green and blue; also (beta) pale green for use with Ilford Panchromatic plates giving correction for all colors. Prices:

Tri-color set .....	\$2.85
Beta, single .....	.90

## Wratten Orthochromatic Filters

These filters are supplied in three strengths:

Series K-1. A very light filter of good correcting power. It requires  $1\frac{1}{2}$  times the normal exposure upon the Panchromatic film or plate. The only filter for short exposure and hand camera work.

Series K-2. A strong filter increasing the exposure about 3 times on the Panchromatic film or plate. It is the standard correcting filter most generally used.

Series K-3. This filter affords correct color rendering upon the Panchromatic film or plate. Requires  $4\frac{1}{2}$  times the normal exposure and is not recommended for other films or plates. This screen is largely used for picture copying, and for other work requiring exactly truthful rendering in monochrome of varied colors.

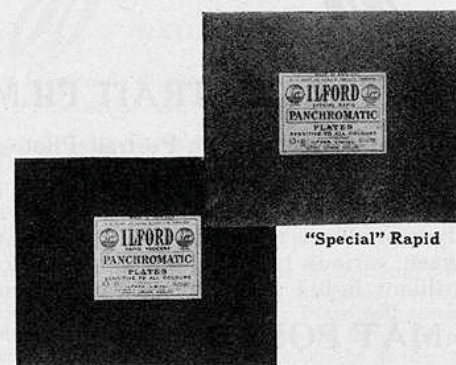
## Commercial Set of 8 Filters

The most generally useful filters for commercial and general photography are the following: K1, K2, K3, G (Orange), F (deep Red), A (Orange-Red), B (Green), and C (Blue). The factors for these are usually given on the instructions with each box of panchromatic plates.

Cemented in "B" glass, 3-inch, per set in case.....	\$35.00
Single Filters, each.....	3.75

## Ilford Panchromatic Plates

(Imported)



Rapid "Process"

**CHARACTERISTICS:**—Uniformity, Excellent Gradation, Latitude, Freedom from Fog, Fine Grain, Ease in Manipulation, Keeping Quality.

**PANCHROMATIC**—For the Engraver, Industrial and Commercial Photographer (made in TWO varieties).

*"Special Rapid Panchromatic"	"Yellow Label"	Perfect monochrome rendering of color—continuous tone.	Fastest Panchromatic plates made.
***"Rapid Process Panchromatic"	"Blue Label"	Photo-mechanical color-printing processes giving great density and beautiful crisp dot formation.	High Speed with a degree of Color Sensitiveness hitherto unobtainable. About $\frac{1}{2}$ speed of "Special" above.

\*\* Panchromatic "PROCESS" (blue label) plates are only supplied already "BACKED."

\* Panchromatic "SPECIAL RAPID" (yellow label) will be supplied "BACKED" if specified.

### NET PRICE LIST

Sizes		Sizes	
$3\frac{1}{4} \times 4\frac{1}{4}$ .....	\$1.20	11x14 .....	\$14.78
$3\frac{3}{4} \times 5\frac{1}{2}$ .....	1.50	12x15 .....	17.25
4 x 5 .....	1.65	14x17 .....	23.42
5 x 7 .....	2.68	16x20 .....	34.30
$6\frac{1}{2} \times 8\frac{1}{2}$ .....	3.98	13x22 .....	41.50
8 x 10 .....	6.64	18x24 .....	51.40
10 x 12 .....	9.87	20x24 .....	59.20

The name ILFORD is so well known being the foremost manufacturers of "Panchromatic" and "Speed" dry plates in England for many years, our unqualified recommendation is suggested for their use. We are the SOLE CENTRAL-WESTERN AGENTS for these plates.



# Agfa CUT FILMS

## REGULAR PORTRAIT FILM

Meets all Demands of Modern Portrait Photography

The emulsion is remarkable for its sensitiveness, giving the best possible gradation of density, from the darkest shadows to the highest lights. It not only reproduces the details in the delicate shadows, but distinguishes between various high lights in the negative, so that the very important brilliant lights are brought out without retouching.

## MAT PORTRAIT FILM

The film has a mat back which is the equivalent of a finely ground glass surface. It has advantages over the present Portrait Films in use, as follows:

No retouching fluid necessary, as the retouching is done on the Mat side of the film.

Eliminates the use of a glass plate and ground-glass substitute for background work. The backgrounds are worked in on the Mat side of the film, using stick crayon sauce as a Medium.

The back of the Agfa Mat Portrait Film will not scratch as the glossy portrait film does.

## PANCHROMATIC

Made in two grades: **Process color (contrast)**  
**Regular speed (soft)**

The Agfa Panchromatic **Regular** is a very fast color sensitive emulsion giving true rendition of the spectrum scale. This particular emulsion has been given an exceptionally high H and D reading and has instantly met with popular demand with photographic experts in this country.

## ORTHO-COMMERCIAL

Another new item in the AGFA line of Photo-technical films for use whenever an emulsion of orthochromatic qualities is desired. A fast film of clear base.

## COMMERCIAL

Used for ordinary commercial work having good recording values, clear base, latitude in exposure and development.

## PROCESS

For copying and other uses demanding contrast in black and white; also possessing the clear base which is characteristic of all of the above grades of AGFA cut films.

See page No. 113 for sizes and condensed net prices.

# Agfa COLOR-PLATES

(NATURAL COLORS)

Used by Industrial, Commercial and Pictorial Photographers,  
Scientific and Technical Laboratories.

Pictures in Natural Colors have been the ideal of photographers from the beginning of photography. Although up to now there is not found yet a solution of taking color pictures on paper in practical and easily handled form, still the color screen process by means of Agfa Color Plates can be regarded as an ideal solution of color photography. It supplies glass pictures of highest brilliancy and life-like correctness of colors.

The plate will soon make its way not only in professional portraiture and amateur circles, but especially in scientific institutions, hospitals, technical laboratories, etc. Also for micro-technical work the Agfa Color Plate will certainly present itself as an indispensable help for fixing the finenesses of the structure in natural colors (metalography, etc.) This is particularly conspicuous in the case of micro-pictures in polarized light.

The Agfa Color Plates are now supplied in all sizes from 2 1/4 x 3 1/4 to 11 x 14 inches, as well as in the common centimeter sizes, including the 4.5 x 10.7 and 6 x 13 cm. (stereoscopic sizes).

### Sizes in Stock and Prices Per Box of Four Plates

2 1/4 x 3 1/4	.....\$0.93	5 x 7	.....\$ 3.42
3 1/4 x 4	.....1.44	6 1/2 x 8 1/2	.....5.70
3 1/4 x 4 1/4	.....1.56	8 x 10	.....9.00
3 1/4 x 5 1/2	.....2.13	11 x 14	.....16.50
4 x 5	.....2.28		

### The Special Agfa Colorplate-Filter is Necessary for Exposure

No. 20 for white daylight. No. 21 for sunny winter landscapes, very blue skies, etc. No. 22 for paintings (in daylight). No. 30 for use with Agfa Flashlight. No. 31 for Arc Light (Siemens Carbon). No filter required for white nitrogen lamp.

### Prices

Size	Filter only	Suitable Holder extra	Size	Filter only	Suitable Holder extra
1 1/4 x 1 1/4 in.....	\$0.60	\$0.75	3 x 3 in.....	\$2.35	\$1.35
1 3/4 x 1 3/4 in.....	.85	1.00	3 1/2 x 3 1/2 in.....	3.20	1.50
2 1/4 x 2 1/4 in.....	1.50	1.20	4 1/4 x 4 1/4 in.....	6.00	

### Developing outfits for Color Photography

(These outfits are not absolutely required, formula for developer and reversing bath being given in Working Instructions.)

Size I.....\$1.00 Size II.....\$1.50

Ask for special booklet on Agfa Color Plate.



# Agfa X-RAY-FILMS

(Superspeed)

Coated Both Sides

The Agfa X-Ray-Films have been used for years and are giving the medical profession X-Ray pictures that cannot be excelled. They are standard in many laboratories abroad and in this country.

Size—Inches	Per Doz. List Price	Size—Inches	Per Doz. List Price
5 x 7	.....\$1.45	10x12	.....\$ 5.20
6 1/2 x 8 1/2	.....2.30	11x14	.....6.60
8 x 10	.....3.30	14x17	.....10.05



## Gevaert Cut Films

For All Purposes

Studio (Speed)  
Studio (Regular)  
Ortho-Commercial



Commercial (Regular)  
Process  
Positive

GEVAERT CUT FILMS for professional use are the result of several years of painstaking laboratory research work. In them are not only incorporated a goodly portion of Gevaert's wide experience in the manufacture of sensitized photographic products but they are based upon a new process of emulsifying which eliminates the veil or fog typical with negative emulsions coated on film. This insures correct registration of highlights and shadows with a full range of half-tones, of high sensitiveness, and in addition, greater latitude in both exposure and development.

Negatives of the proper density may be obtained on GEVAERT FILM even in cases of under-exposure, within reasonable limits, because of their richness in silver and their property of withstanding forced development without fogging and their heavy, faultless, transparent base makes them very easy to handle.

GEVAERT CUT FILMS are at present supplied in the following varieties, each of which is a distinct achievement from the double viewpoint of photo-chemical science and of photographic art practically applied:

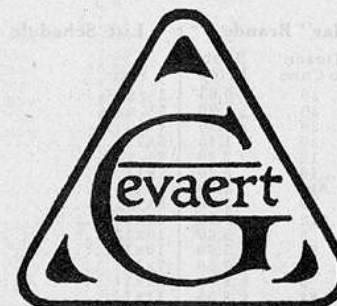
Gevaert Studio Film—Extreme Speed.....	H & D 700
Gevaert Studio Film—Regular Speed.....	H & D 450
Ortho Commercial Film.....	H & D 400
Commercial Film.....	H & D 175
Process Film.....	H & D 30
Positive Film.....	H & D 10

### PRICES

See page No. 113 for net prices on all above Gevaert cut films.

## Gevaert Dry Plates

A High Grade Brand of Photographic Plates of Unusual Merit



Gevaert Dry Plates are divided into two classes: i.e., Gevaert "Regular" and Gevaert "Sensima" (meaning super-sensitive). The plates and specific purposes of their use together with prices are as follows:

### GEVAERT "REGULAR"

CAT. No. G1—SPECIAL SENSITIVE—(Green Label). H. & D. 400—An excellent studio plate.

CAT. No. G2—ORTHOCHROMATIC—H. & D. 400—For correct rendering of color values. Sensitive to yellow and green rays. Recommended for portraits in colored clothing; landscapes in Spring and Autumn and reproductions of paintings. The use of any approved light filter will increase the color sensitiveness of this plate.

CAT. No. G3—FILTERED ORTHO—H. & D. 250—This plate gives admirably correct monochrome rendering of yellow and green values, even when used without a light filter.

CAT. No. G4—ORTHO ANTI-HALO—H. & D. 250—A perfect Non-Halation Plate which possesses highly developed orthochromatic properties. The prevention of halation is obtained by an improved special coating between emulsion and glass, which develops entirely during development of the plate.

CAT. No. G5—PROCESS—H. & D. 30—For line and process work, yielding negatives of fine density and full contrast.

CAT. No. G6—ORTHO PROCESS—An exceptionally fine process plate, the orthochromatic properties of which make possible the correct rendering of colors.

CAT. No. G7—LANTERN SLIDE PLATES—For stereos, window-panes, projections and enlargements—Supplied in two varieties:

Black Tone (Normal and Contrast) and Warm Tone (Normal only).

### PRICES

#### Cat. No. G7—Lantern Slide Plates

Dozen to Case	Size	List	Case Lots	Less than Case
30	3 1/4 x 4	\$0.50	25%	20%
90	3 1/4 x 4	.50	30%	....
198	3 1/4 x 4	.50	30-5%	....
594	3 1/4 x 4	.50	30-10%	....

CAT. No. G8—REPRODUCTION AND TRANSPARENCY—Of Lantern Slide emulsion.

Special Quotations in quantities. Cat. No. G7 and G8.

### GEVAERT "SENSIMA"

CAT. No. GS10—SENSIMA—(Blue Label). Genuine H. & D. 500—The most modern of all ultra-speed plates. For artificial light and all occasions requiring the shortest possible exposure, especially home groups, sport, children and animal pictures, and for use in dull weather.

CAT. No. GS11—SENSIMA MAT—H. & D. 500—A most excellent studio plate. Its Mat Emulsion makes 50% of the retouching unnecessary and can be worked without retouching fluid. Ideal for photographing large heads, etc.

\*Sensima Mat Plates are stocked in the following sizes: 5x7 6 1/2 x 8 1/2 8x10 11x14

CAT. No. GS12—SENSIMA-ORTHO—H. & D. 500—A plate of the highest standard. Combines correct rendering of color values with extreme sensitiveness.

CAT. No. GS13—SENSIMA ORTHO ANTI-HALO—H. & D. 500—Is, like Sensima, a plate of the highest speed and offers, besides excellent orthochromatic properties, the advantages of a perfect non-halation plate. ("SAHO" for abbreviated name.)

### PRICES

Dozen in Case	Size	List	Per dozen	List	Per dozen
30	3 1/4 x 4 1/4	\$ .65		\$ .80	
30	3 1/4 x 5 1/2	.90		1.10	
30	4x5	.90		1.10	
20	5x7	1.45		1.80	
12	6 1/2 x 8 1/2	2.20		2.75	
10	8x10	3.20		4.00	
4	10x12	5.60		7.00	
4	11x14	8.05		10.05	
3	14x17	13.80		17.25	
2	12x20	22.00		27.25	
2	16x20	24.75		30.75	

Discounts: Case Lots 25%; less than case, 20%. Assorted Orders of \$20.00 Net at case rate.

### HOW TO ORDER

Merely specify Quantity, Size and Catalog Number.

Prices or Discounts subject to change without notice



**"ORDER FROM NORMAN-WILLETS" CHICAGO**

# Dry Plate Prices and Discounts

(All Domestic Brands)

## List Schedule for "Regular" Brands

Size	Dozen to Case	List Price
3 1/4 x 4 1/4	30	\$ 0.65
3 1/4 x 5 1/2	30	.90
4x5	30	.90
5x7	20	1.45
6 1/2 x 8 1/2	12	2.20
7x11	10	3.20
7x11	*12	3.20
8x10	10	3.20
8x10	*12	3.20
10x12	3	† 5.60
10x12	*4	† 5.60
7x17	4	† 7.50
11x14	3	† 8.05
11x14	*4	† 8.05
8x20	*2	†17.50
12x20	2	†22.00
14x17	2	†13.80
14x17	*3	†13.80
16x20	1 1/2	†24.75
16x20	*2	†24.75

\*Hammer doz. to case. † 1/2 doz. pkgs.

## List Schedule for "Special" Brands

Size	Dozen to Case	List Price
3 1/4 x 4 1/4	30	\$ 0.80
3 1/4 x 5 1/2	30	1.10
4x5	*30	1.10
5x7	20	1.80
6 1/2 x 8 1/2	12	2.75
7x11	10	4.00
7x11	*12	4.00
8x10	10	4.00
8x10	*12	4.00
10x12	3	† 7.00
10x12	*4	† 7.00
7x17	4	†10.00
11x14	3	†10.05
11x14	*4	†10.05
8x20	*2	†22.00
12x20	2	†27.25
14x17	2	†17.25
14x17	*3	†17.25
16x20	1 1/2	†30.75
16x20	*2	†30.75

\*Hammer doz. to case. † 1/2 doz. to pkg.

## Discounts from Above List

Case Lots	Per Doz.	Brands
25%	15%	Hammer X. F. (BL)
15%	10%	Hammer Special (RL)
15%	10%	Hammer Press
15%	10%	Hammer X. F. Ortho.
15%	12 1/2%	Hammer Com'l. Ortho.
15%	10%	Hammer Slow Ortho.
15%	10%	Hammer Spec. Ortho.
15%	10%	Hammer Transparency
25%	15%	Hammer Slow (WL)
20%	15%	Seed No. 27
20%	15%	Seed No. 26X
17 1/2%	12 1/2%	Seed Process
25%	20%	Seed No. 22
25%	20%	Seed L. Ortho.
17 1/2%	10%	Seed Panchro.
25%	20%	Stanley Regular
30%	25%	Central Comet
27 1/2%	22 1/2%	Central XX
27 1/2%	22 1/2%	Central Exellal
20%	15%	Eastman No. 40
20%	15%	Eastman No. 36
20%	15%	Eastman Speedway
22 1/2%	15%	Eastman Commercial
20%	15%	Eastman Process
22 1/2%	15%	Eastman Polychrome

## COVER GLASS

Size	Dozen to Case	List Price
3 1/4 x 4	30	\$0.50
3 1/4 x 4 per case (1108 lights)		15.00

## DISCOUNTS

Case Lots—40%. Doz.—20%

Prices or Discounts subject to change without notice

**"ORDER FROM NORMAN-WILLETS" CHICAGO**

# Net Prices on Cut Film

## REGULAR LIST

Case	Size	Doz.	"Gevaert" and "Agfa" Ortho Commercial and Process List	Net	"Gevaert" and "Agfa" Studio Net	"Eastman" Par Speed Portrait Net
20	5 x 7	Doz.	\$ 1.45	\$ 1.12	\$ 1.12	\$ 1.17
		Case	29.00	21.03	21.03	21.75
12	6 1/2 x 8 1/2	Doz.	2.20	1.71	1.71	1.77
		Case	26.40	19.14	19.14	19.80
10	8 x 10	Doz.	3.20	2.48	2.48	2.57
		Case	32.00	23.20	23.20	24.00
3	11 x 14	Doz.	8.05	6.25	6.25	7.85
		Case	24.15	17.51	17.51	18.10

## SPECIAL LIST

Case	Size	Doz.	"Agfa" Matt List	Net	"Gevaert Speed" "Agfa" Panchromatic Net	"Eastman" Super and Panchromatic Net
20	5 x 7	Doz.	\$ 1.60	\$ 1.20	\$ 1.20	\$ 1.28
		Case	32.00	23.15	23.20	24.06
12	6 1/2 x 8 1/2	Doz.	2.45	1.80	1.90	1.95
		Case	29.30	21.24	21.30	22.07
10	8 x 10	Doz.	3.55	2.75	2.80	2.86
		Case	35.50	25.73	25.80	26.64
3	11 x 14	Doz.	8.90	7.10	7.15	7.15
		Case	26.70	19.30	19.40	20.04

Note: Orders for films amounting to \$20.00 net will be billed at the case price.

# Anso Proof Paper

Though proof paper is usually thought of as a minor product, it performs an important function—that of enabling the customer to select the negative which will make the most pleasing likeness. A good proof paper should simplify the decision. It should not over-emphasize blemishes or faults that retouching will remove, nor yet should it raise expectations of a quality in the delivered pictures radically different from that which will be obtained. In short, it should help to get the order on the negatives already made, yet with assurance of the customer's satisfaction. Anso Proof Paper is made with these points clearly in mind.

The surface is medium glossy, and the paper is packed in gross boxes only, except 8x10 and 11x14, which are packed in half-gross boxes. When supplied in these sizes in half-gross lots the price is half the gross price. Prices appear below.

## PRICE LIST OF ANSCO PROOF PAPER

Size	Per Gross	Size	Per Gross
3 1/2 x 5 1/2	\$1.35	6 1/2 x 8 1/2	\$ 3.75
4 x 6	1.50	7 x 9	4.15
4 1/2 x 6 1/2	1.80	7 1/2 x 9 1/2	4.70
5 x 7	2.30	7 x 11	5.10
5 x 8	2.60	8 x 10	5.30
6 x 8	3.15	11 x 14	10.00

Discounts: Orders to \$3.00 list, 10%.  
Orders from \$3.00 to \$15.00 list, 20%.  
Orders of \$15.00 or over, 25%.

Note: Anso Proof orders may be combined with other ANSCO paper requirements to make the quantity discount.

## Discounts from Above List

Case Lots	Per Doz.	Brands
15%	10%	Hammer Aurora N.H.D.C.
15%	10%	Hammer Spec. N.H.D.C.
15%	10%	Hammer Ortho. D.C.
15%	10%	Hammer Spec. Ortho. D.C.
25%	20%	Seed L. Ortho. N.H.
25%	20%	Seed Standard Ortho.
25%	15%	Eastman D.C. Ortho.

## POSTAL PLATES

Size	Doz. to Case	List	Brand	Discounts Case Per
3 1/4 x 4 1/4	30	\$0.65	Central	30% 20%
3 1/4 x 4 1/4	108	.55	Central	30% —%
3 1/4 x 4 1/4	36	.65	Hammer	25% 20%
3 1/4 x 4 1/4	90	.65	Hammer	25% —%
3 1/4 x 5 1/2	30	.90	Hammer	25% 20%
4x5	30	.90	Hammer	25% 20%

## LANTERN SLIDES

Size	Doz. to Case	List	Brand	Discounts Case Per
3 1/4 x 4	30	\$0.65	Central	30% 20%
3 1/4 x 4	120	.55	Central	35% —%
3 1/4 x 4	30	.50	Hammer	20% 15%
3 1/4 x 4	90	.50	Hammer	25% —%

(Also see Gevaert, page No. 111)

## X-RAY PLATES

(Eastman)

Size	Doz. to Case	List	Discounts Case Lots Per Doz.
5x7	20	\$ 1.70	12 1/2% 5%
6 1/2 x 8 1/2	12	2.55	
8x10	10	3.60	
10x12	3	6.20	
11x14	3	8.70	
14x17	2	14.50	



# Professional "Cyko" (Contact) and "Cylko" (Contact)



Professional Cyko is offered in a variety of attractive surfaces, but in only one "grade," a point which it has in common with other portrait papers. This grade may be roughly described as "medium soft," a term which, however, conveys but a faint idea of the plastic adaptability of



Professional Cyko to negatives as they run. In addition to its adaptability to various types of negatives and to its remarkable latitude, Professional Cyko is also distinguished by the ease with which the most desirable tones in either BLACK AND WHITE or SEPIA may be obtained.

## Professional Cyko—(Contact)

	SURFACE	DESCRIPTION	WEIGHT
No. 1	Satex Buff	Delicate Satin-like sheen	Double Weight only
No. 2	Satex White	Delicate Satin-like sheen	Double Weight only
No. 3	Glossy	Enameled	Single and Double
No. 4	Buff	Smooth Buff	Double Weight only
No. 5	Plat	Smooth White	Double Weight only
No. 6	Studio	Semi-gloss	Single and Double
No. 7	Rough White	Rough without pattern	Double Weight only
No. 8	Rough Buff	Rough without pattern	Double Weight only
	Linen White	Linen-textured	Double Weight only
	Linen Buff	Linen-textured	Double Weight only

## Professional Cylko—(Contact)

(Same speed as Professional Cyko)

White	Silk texture without direction	Double Weight only
Buff	Silk texture without direction	Double Weight only

## PRICES

PROFESSIONAL (Except Cylko)				CYLKO (Silk)	
SIZE	SINGLE WEIGHT	DOUBLE WEIGHT		Double Wt. (only)	
	Doz.	Gross	Doz.	Doz.	Gross
3 1/2 x 5 1/2	\$0.20	\$2.00	\$ .25		\$2.50
4 x 6	.25	2.25	.30		2.80
4 1/4 x 6 1/2	.30	2.80	.35	\$ .25	\$2.50
5 x 7	.35	3.50	.45	.50	4.50
5 x 8	.40	4.00	.50		
6 x 8	.50	5.00	.60		
6 1/2 x 8 1/2	.60	6.00	.75		
6 x 10	.70	7.00	.85	.90	8.75
7 x 9	.70	7.00	.85		
7 x 10	.80	8.00	1.00		
7 1/2 x 9 1/2	.80	8.00	1.00		
7 x 11	.90	9.00	1.10	1.10	11.75
8 x 10	.90	9.00	1.10	1.10	11.75
8 x 12	1.10	10.75	1.35	1.40	14.00
9 x 11	1.10	11.00	1.40		
9 x 12	1.35	13.50	1.70		
9 x 14	1.50	14.75	1.80		
11 x 14	1.75	17.50	2.20	2.20	22.50
12 x 15	2.10	20.70	2.60		
12 x 17	2.35	23.25	2.90		
14 x 17	2.70	27.00	3.40	2.95	29.85
14 x 18	2.85	28.50	3.60		
16 x 20	3.60	36.00	4.50	4.40	46.75

## ROLLS—(Except "Cylko")

	Single Weight	Double Weight
10 foot rolls (20 inches wide)	\$ 1.80	\$ 2.25
10 yard rolls (20 inches wide)	5.40	6.75
10 foot rolls (40 inches wide)	3.60	4.50
10 yard rolls (40 inches wide)	10.80	13.50

## POST CARDS—"Cyko"

	Dozen	Gross	Per M
3 1/2 x 5 1/2	\$0.20	\$2.00	\$13.50

HOW TO ORDER PROFESSIONAL GRADES: Specify Amount; Size; Number; single or double weight.

Discounts: Orders to \$3.00 list, 10%.  
Orders from \$3.00 to \$15.00 list, 20%.  
Orders of \$15.00 or over, 25%.

Note: Professional Cyko and Cylko orders may be combined with other ANSCO paper requirements to make the quantity discount.



# ENLARGING

## FAST CHLORIDE PAPERS

(Projection)



A brief condensed description of all Enlarging papers made by Ansco Photo Products, showing numbers, grades, etc., and how to order.

## Enlarging "Cyko"

Surface	Grades: Regular and Contrast.	
No. 3—Glossy	Enameled	Single and Double
No. 4—Buff	Smooth Buff	Double Weight only
No. 5—Plat	Smooth White	Double Weight only
No. 6—Studio	Semi-gloss	Single and Double
	Linen White	Double Weight only
	Linen Buff	Double Weight only

## Enlarging "Cylko" (Silk)

Grades: Regular.	
White	Silk texture without direction
Buff	Silk texture without direction

## Enlarging Ansco "Contest"

Grades: One degree of Contrast only.	
No. 107—Rough White	Rough without pattern
No. 108—Rough Buff	Rough without pattern

## PRICES

Enlarging "Cyko" (Regular and Contrast)				Ansco "Contest" Enlarging "Linen"		Enlarging "CYLKO" (Silk)	
Size	Single Weight	Double Weight		Double Weight		Double Weight	
	Dozen	Gross	Dozen	Dozen	Gross	Dozen	Gross
4 x 6	\$0.18	\$1.80	\$0.25	\$0.30	\$2.80	\$0.25	\$2.50
5 x 7	.30	2.75	.40	.45	4.45	.50	4.50
5 x 8	.30	3.15	.45	.50	4.95		
6 x 8	.40	3.85	.55	.60	6.25		
6 1/2 x 8 1/2	.45	4.65	.65	.75	7.50		
6 x 10	.55	5.50	.70	.85	8.50	.90	8.75
7 x 9	.55	5.90	.70	.85	8.75		
7 1/2 x 9 1/2	.60	6.25	.80	1.00	10.25		
7 x 11	.70	7.00	.90	1.10	11.25	1.10	11.75
8 x 10	.80	8.00	.90	1.10	11.25	1.10	11.75
9 x 11	.85	8.50	1.15	1.40	14.00		
10 x 12	1.05	10.50	1.35	1.70	17.00		
11 x 14	1.35	13.50	1.80	2.20	22.00	2.20	22.50
12 x 15	1.60	16.00	2.10	2.50	26.00		
14 x 17	2.05	20.50	2.75	3.40	34.00		
16 x 20	2.75	27.50	3.60	4.50	45.25	4.40	46.75
18 x 22	3.50	35.25	4.65	5.80	58.00		
20 x 24	4.20	42.00	5.60	6.90	69.00		

## ROLLS

(Except "Contest", "Linen" and "Cylko")

	Single Weight	Double Weight
10 foot rolls (20 inches wide)	\$1.50	\$1.75
10 yard rolls (20 inches wide)	3.50	4.50
10 foot rolls (40 inches wide)	2.75	3.50
10 yard rolls (40 inches wide)	7.00	9.00

HOW TO ORDER ENLARGING GRADES: Specify Amount; Size; Number; regular or contrast; single or double weight.

Discounts: Orders to \$3.00 list, 10%.  
Orders from \$3.00 to \$15.00 list, 20%.  
Orders of \$15.00 or over, 25%.

Note: Cyko orders may be combined with other ANSCO paper requirements to make the quantity discount.



"ORDER FROM NORMAN-WILLETS" CHICAGO

## ANSCO BROMIDE

For

Portrait, Pictorial and Commercial Use



Anso Bromide is a new addition to the line, and like Enlarging Cyko is meeting with popular favor for projection purposes where insufficient illumination is provided when only fast Bromide paper can be used.

Made in the following grades and surfaces:

Grades { "Standard" (Normal)  
"Brilliant" (Contrast)

Surface	Color	Weight
Glossy	White	Single Weight only
Matte	White	Double Weight only
Matte	Buff	Double Weight only
Rough	White	Double Weight only
Rough	Buff	Double Weight only

Sizes	Dozen	Single Weight 1/2 Gross	Gross	Doz.	Double Weight 1/2 Gross	Gross
5 x 7	.35	\$ 1.70	\$ 3.25	\$ 0.40	\$ 2.15	\$ 4.10
5 x 8	.35	1.90	3.65	.45	2.40	4.55
5 1/2 x 12	.40	2.05	3.90	.50	2.55	4.90
6 1/2 x 7 1/2	.45	2.05	3.90	.50	2.55	4.90
6 x 8	.45	2.30	4.40	.55	2.90	5.50
6 1/2 x 8 1/2	.50	2.80	5.25	.65	3.45	6.55
7 x 9	.60	3.05	5.80	.75	3.80	7.25
7 1/2 x 9 1/2	.65	3.45	6.60	.85	4.30	8.25
7 x 11	.75	3.90	7.40	.95	4.85	9.25
8 x 10	.75	3.90	7.40	.95	4.85	9.25
9 x 11	.95	4.85	9.25	1.15	6.05	11.55
10 x 12	1.15	6.00	11.40	1.45	7.50	14.25
11 x 14	1.40	7.35	14.00	1.75	9.20	17.50
12 x 15	1.60	8.35	15.90	2.00	10.45	19.90
14 x 17	2.10	11.00	21.00	2.65	13.80	26.25
16 x 20	2.80	14.70	28.00	3.50	18.40	35.00
17 x 20	3.00	15.75	30.00	3.75	19.75	37.50
18 x 22	3.50	18.40	35.00	4.40	22.95	43.75
20 x 24	4.20	22.00	42.00	5.25	27.55	52.50

### ROLLS

	Single Weight	Double Weight
10 foot (20 inches wide)	\$ 1.70	\$ 2.10
10 yard (20 inches wide)	5.10	6.30
10 foot (40 inches wide)	3.40	4.20
10 yard (40 inches wide)	10.20	12.60

HOW TO ORDER ANSCO BROMIDE: Specify Amount; Size; Surface and Color; Standard or Brilliant; single or double weight.

Discounts: Orders to \$3.00 list, 10%.  
Orders from \$3.00 to \$15.00 list, 20%.  
Orders of \$15.00 or over, 25%.

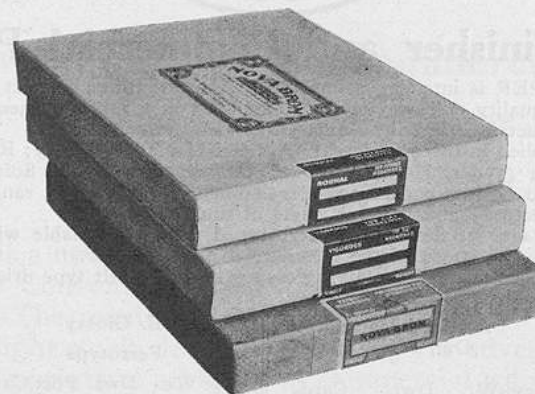
Note: Anso Bromide orders may be combined with other ANSCO paper requirements to make the quantity discount.

"ORDER FROM NORMAN-WILLETS" CHICAGO

## GEVAERT "Bromide" Paper

For High Class Commercial Work

Manufactured by The Gevaert Company, Belgium, one of the world's oldest bromide paper makers.



Made in the following SURFACES and CONTRASTS

No.	Single Weight	Double Weight (designated "K")
1	White Matt Smooth	K1—White Matt Smooth
3	White Semi-Matt Smooth	K2—White Rough
10	Glossy White	K3—White Semi-Matt Smooth
		K5—Cream Matt Smooth
		K6—Buff Rough
		K7—Cream Semi-Matt Smooth
		K10—Glossy White
		K14—White Matt Coarse
		K15—Cream Matt Coarse
		K17—White Coarse Lustre
		K18—Buff Coarse Lustre

All surfaces supplied in Xtra Vigorous (extreme contrast); Vigorous (contrast), and Normal with the exception of Nos. 1, K2, K5, K6, K7, K14, K15, K17 and K18 supplied in Xtra Vigorous and Normal only.

### LIST PRICES

Sizes	Dozen	Single Weight 1/2 Gross	Gross	Doz.	Double Weight 1/2 Gross	Gross
5 x 7	.35	\$ 1.70	\$ 3.25	\$ 0.40	\$ 2.15	\$ 4.10
6 1/2 x 8 1/2	.40	2.80	5.25	.65	3.45	6.55
8 x 10	.75	3.90	7.40	.95	4.85	9.25
9 x 11	.95	4.85	9.25	1.15	6.05	11.55
10 x 12	1.15	6.00	11.40	1.45	7.50	14.25
11 x 14	1.40	7.35	14.00	1.75	9.20	17.50
12 x 15	1.60	8.35	15.90	2.00	10.45	19.90
14 x 17	2.10	11.00	21.00	2.65	13.80	26.25
16 x 20	2.80	14.70	28.00	3.50	18.40	35.00
17 x 20	3.00	15.75	30.00	3.75	19.75	37.50
18 x 22	3.50	18.40	35.00	4.40	22.95	43.75
20 x 24	4.20	22.00	42.00	5.25	27.55	52.50

### ROLLS

	Single Weight	Double Weight
10 ft. rolls	\$ 1.70	\$ 2.10
10 yd. rolls	5.10	6.30
40 inches wide	3.40	4.20
10 yd. rolls	10.20	12.60

HOW TO ORDER GEVAERT BROMIDE: Specify amount, size and number.

Discounts: Orders to \$3.00 list, 10%.  
Orders from \$3.00 to \$15.00 list, 20%.  
Orders of \$15.00 or over, 25%.

Note: Gevaert Bromide orders may be combined with other GEVAERT or ANSCO paper requirements to make the quantity discount.





## For Finisher and Commercial Plants

NOKO PAPER is intended primarily for the photo-finisher. It combines low price and fine quality of raw stock and emulsion in a manner unequalled by any competing product intended for similar use.

Noko is supplied in three surfaces: A, Semi-Matte; B, Glossy; R, Glossy (Belt Drier), and four grades, Hard, Medium, Soft and Commercial Soft, each with a broad latitude in both exposure and development, to cover the range of amateur negatives satisfactorily and without waste of time in printing.

Noko B, because of the brilliant ferrotyped prints obtainable with it, is especially adapted to the needs of the commercial photographer.

Noko R is recommended for high glossy prints in a belt type drier.

Order by number.

Grades	A. Semi-Matte Dull Finish			B. Glossy Ferrottype			R. Glossy Belt Drier
	Reg. Wt.	Dwt.	Post Cards	Reg. Wt.	Dwt.	Post Card	Reg. Wt.
Hard	No. 10	No. 11	No. 11	No. 12	No. 13	No. 13	No. 18
Medium	No. 20	No. 21	No. 21	No. 22	No. 23	No. 23	No. 28
Soft	No. 30	No. 31	No. 31	No. 32	No. 33	No. 33	No. 38
Commercial Soft	No. 40	No. 41	No. 41	No. 42	No. 43	No. 43	No. 48

### PRICES

Size	Single Weight		Gross	Double Weight		Gross
	Dozen	1/2 Gro.		Dozen	1/2 Gro.	
3 1/4 x 5 1/2	.....	.....	\$ 1.25	.....	.....	\$ 1.55
4 x 5	.....	.....	1.35	.....	.....	1.70
4 x 6	.....	.....	1.50	.....	.....	1.90
5 x 7	\$0.25	\$ 1.20	2.30	\$0.30	\$ 1.50	2.90
3 1/2 x 12	.30	1.50	2.80	.35	1.90	3.50
6 1/2 x 8 1/2	.40	2.00	3.75	.50	2.50	4.70
7 1/2 x 9 1/2	.50	2.45	4.70	.65	3.10	5.90
8 x 10	.55	2.80	5.30	.70	3.50	6.65
10 x 12	.80	4.25	8.15	1.00	5.35	10.20
11 x 14	1.00	5.25	10.00	1.25	6.55	12.50
14 x 17	1.50	7.90	15.00	1.90	9.90	18.75
16 x 20	2.00	10.50	20.00	2.50	13.15	25.00
18 x 22	2.50	13.10	25.00	3.15	16.40	31.25
20 x 24	3.00	15.75	30.00	3.75	19.70	37.50

### NOKO IN 500-SHEET PACKAGES

Size	Single Weight	Double Weight	Size	Single Weight	Double Weight
2 1/2 x 3 1/2	\$2.15	\$2.65	3 1/2 x 5 1/2	\$4.50	\$5.65
2 1/2 x 4 1/2	2.65	3.35	4 1/2 x 5 1/2	5.00	6.30
3 1/2 x 4 1/2	3.50	4.30	4 1/2 x 6 1/2	5.00	6.30
3 1/2 x 5 1/2	3.50	4.30	5 x 7	7.65	9.65
3 1/2 x 5 1/2	4.15	5.35			

### NOKO POST CARDS

Doz.	2 Doz.	1/2 Gross	Gross	500
\$0.20	\$0.30	\$0.90	\$1.70	\$5.75

Noko Post Cards in lots of 5,000, all one grade and surface, in one case, \$40.00 per case. Imprint Noko post cards: \$1.75 first thousand, 75c per 1,000 each successive thousand, net.

Noko is supplied in rolls for panoramic prints. Price list on request.

Discounts: Orders to \$3.00 list, 10%.  
Orders from \$3.00 to \$15.00 list, 20%.  
Orders of \$15.00 or over, 25%.

Note: Noko orders may be combined with other ANSCO paper requirements to make the quantity discounts.



## A New Paper for the Commercial and Industrial Photographer

### The Folding Noko Paper

Here is a new paper first shown at the 44th Annual Photographers Convention at Chicago, made by Ansco Photo-products. The result of several years' effort. It is a paper coated on light stock, designed especially for advertising, catalog, and file prints of all kinds of commercial subjects—furniture, hardware, jewelry, automotive equipment, glassware, sporting goods, and in fact all varieties of merchandise of which photographic prints are desired. The print will not crack when folded for inclosure in a letter or for carrying in a salesman's pocket or wallet.

And, best of all, the photographic quality is all that can be desired—brilliant, rich, deep, covering the full range of tones. The only thing cheap about this paper is the price. And it is easy to work—just as easy as Noko. Developer is the same as for Noko Paper.

Surface: Smooth velvet semi-matte surface

Four Grades: { Hard (contrast) Soft (soft)  
                  { Medium (normal) Extra Soft (commercial)

### List prices as follows:

Size	Gross	500-Sheet Boxes
8x10.....	\$ 5.00	\$16.25
9x11.....	6.25	20.00
10x12.....	7.50	24.35
11x14.....	9.50	31.25
14x17.....	15.00	47.50
16x20.....	19.70	62.50
20x24.....	29.70	93.75

Discounts: 10 % in gross packing  
15 % in 1,000 sheet lots  
22 1/2 % in 10,000 sheet lots or more



## "NOVAFLEX" Commercial



### Contact and Enlarging

"Novaflex" is a light weight stock for commercial work.

"Novaflex" is used for the reproduction from commercial negatives (contact or projection), i. e., furniture, automobiles, cut-glass, leather goods, machinery, line work, sales albums, etc.

"Novaflex" is, as the name implies, "flexible" of tough stock texture and will not crack when bent or folded, having development latitude with a fine rendition of tones.

#### Contact Grade

Made in two (2) surfaces, i. e.:

- No. 1 (smooth matte)
- No. 3 (smooth semi-matte)

Made in four (4) contrasts, i. e., Soft, Normal, Vigorous and Extra Vigorous.

	Gross	1000 Sheets
5x 7.....	\$ 1.95	\$ 12.50
8x10.....	4.40	28.60
9x11.....	5.50	35.20
10x12.....	6.60	42.90
11x14.....	8.35	55.00
14x17.....	13.20	83.60
14x20.....	15.40	98.00
16x20.....	17.30	110.00
20x24.....	26.10	165.00
30x40.....	65.50	414.00

In rolls 41" wide—53c per yd.

#### Enlarging Grade

Made in two (2) surfaces:

- No. 1 (smooth matte)
- No. 2 (rough grain matte)

Made in two (2) contrasts; Normal and Vigorous.

Gross	1000 Sheets
\$ 2.00	\$ 13.00
4.60	30.00
5.80	37.00
6.95	45.00
8.80	57.75
13.90	88.00
16.20	103.00
18.20	116.00
27.50	174.00
69.00	435.00

In rolls 41" wide—56c per yd.

Discounts:—10 % in gross packing.

15 % in 1,000 sheet packing.

22½% in 10,000 sheet lots or more.

## VITAVA (Portrait) PAPERS

(Eastman)

### ATHENA—Double Weight (Contact)

B Smooth semi-matt; C Smooth absolute matt; D Medium rough, absolute matt; E Rough, buff stock, medium rough, absolute matt; F Smooth, light buff stock, absolute matt surface; E Semi-matt light buff stock with slight sheen.

### VITAVA ETCHING BROWN—

#### Double Weight

B White, smooth; D White, rough; K Buff, smooth; H Buff, rough.

### VITAVA ZELTA—Double Weight

C White stock, smooth matt; K Buff stock, smooth matt.

Sizes	Dozen	1/2 Gross	Gross
3 7/8 x 5 1/2 Cab.	..	\$ 1.40	\$ 2.50
4 x 6 .....	..	1.50	2.80
5 x 7 .....	..	2.50	4.40
5 x 8 .....	..	2.80	5.00
6 1/2 x 8 1/2 .....	..	4.05	7.50
6 x 10 .....	..	4.60	8.45
7 x 11 .....	..	5.95	11.25
8 x 10 .....	..	5.95	11.25
8 x 12 .....	..	7.20	13.55
10 x 12 .....	..	8.75	16.90
11 x 14 .....	..	11.55	21.90
12 x 17 .....	..	15.20	29.15
14 x 17 .....	..	17.50	33.75
16 x 20 .....	..	23.15	45.00

#### Rolls

	10-ft Rolls	10-yd. Rolls
20 inches wide...	\$ 2.25	\$ 5.85
40 inches wide...	4.50	11.70

10% Discount Orders up to \$25.00 List. 15% Discount Orders up to \$50.00 List.  
17½% Discount Orders up to \$100.00 List.

## P. M. C. BROMIDE PAPERS

### (SINGLE WEIGHT)

GRADE No. 1—Glossy (White), Regular and Contrast.

- 2—Smooth, Regular and Contrast.
- 3—Rough, Regular and Contrast.
- 4—Glossy (Pense), Regular.
- 5—Matt, Regular.

Sizes	Dozen	1/2 Gross	Gross
4 x 6 .....	..	\$ .20	\$ 2.10
5 x 7 .....	..	.35	1.70
6 1/2 x 8 1/2 .....	..	.50	2.80
7 x 11 .....	..	.75	3.90
8 x 10 .....	..	.75	3.90
9 x 11 .....	..	.95	4.85
10 x 12 .....	..	1.15	6.00
11 x 14 .....	..	1.40	7.35
14 x 17 .....	..	2.10	11.00
16 x 20 .....	..	2.80	14.70
18 x 22 .....	..	3.50	18.40

10% Discount Orders up to \$25.00 List. 15% Discount Orders over \$25.00 List.

### VITAVA RAPID BLACK—

#### Double Weight (Projection)

B Smooth semi-matt; D Medium rough stock, absolute matt; E Rough, medium rough buff, absolute matt; E Smooth, buff stock absolute matt; J Buff stock medium rough, lustre surface; L Medium rough lustre surface.

Sizes	Dozen	1/2 Gross	Gross
3 7/8 x 5 1/2 Cab.	..	\$ 1.10	\$ 2.00
4 x 6 .....	..	1.25	2.25
5 x 7 .....	..	.35	2.00
5 x 8 .....	..	.40	2.25
6 1/2 x 8 1/2 .....	..	.60	3.25
7 x 11 .....	..	.80	4.75
8 x 10 .....	..	.80	4.75
9 x 11 .....	..	1.00	5.75
10 x 12 .....	..	1.20	7.00
11 x 14 .....	..	1.60	9.25
14 x 17 .....	..	2.40	14.00
16 x 20 .....	..	3.20	18.50
18 x 22 .....	..	4.00	23.50
20 x 24 .....	..	4.80	28.00

#### Rolls

	10-ft Rolls	10-yd. Rolls
20 inches wide...	\$ 1.65	\$ 4.35
40 inches wide...	3.30	8.70

Any width up to 40 inches, other than the above, is furnished in rolls not less than 10 yards in length.

### VITAVA POST CARDS

ALBA No. 1 and 3 Contrast and RAPID BLACK Semi-matt Surface.

Gross	500
\$2.00	\$6.75

### (DOUBLE WEIGHT)

GRADE No. 6—Smooth, Regular.

- 7—Rough, Regular.
- 8—Medium rough lustre surface on buff stock, Regular and Contrast.
- 9—Semi-gloss, White stock, Regular and Contrast.

Sizes	Dozen	1/2 Gross	Gross
4 x 6 .....	..	\$.25	\$ 2.60
5 x 7 .....	..	.40	2.15
5 x 8 .....	..	.45	2.40
6 1/2 x 8 1/2 .....	..	.65	3.45
7 x 11 .....	..	.95	4.85
8 x 10 .....	..	.95	4.85
9 x 11 .....	..	1.15	6.05
10 x 12 .....	..	1.45	7.50
11 x 14 .....	..	1.75	9.20
14 x 17 .....	..	2.65	13.80
16 x 20 .....	..	3.50	18.40
18 x 22 .....	..	4.40	22.95



# ARTURA (Portrait) PAPERS

Weights and Surfaces

IRIS (Contact)

GRADE A: Regular Weight—Smooth semi-matt.  
 GRADE B: Double Weight—Smooth semi-matt.  
 GRADE C: Double Weight—Smooth absolute matt, no lustre.  
 GRADE D: Double Weight—Medium rough, absolute matt, no lustre.  
 GRADE E ROUGH: Double Weight—Buff medium rough, absolute matt, no lustre.  
 GRADE E SMOOTH: Double Weight—Buff absolute matt (A lighter buff color than Grade E Rough).  
 GRADE E SEMI-MATT: Double Weight—Light Buff, smooth semi-matt surface.

IRIS—Grades: B, C, D and E.  
 AEGIS—Nos. 1 and 2, Double Weight

Sizes	Dozen	Half Gross	Gross	Sizes	Dozen	Half Gross	Gross
3 7/8 x 5 1/2	.....	\$1.40	\$ 2.50	9 x 11	.....	\$1.25	\$ 7.20
4 x 6	.....	1.50	2.80	10 x 12	.....	1.50	8.75
5 x 7	.....	2.50	4.40	9 x 14	.....	1.85	9.65
5 x 8	.....	.50	2.80	11 x 14	.....	2.00	11.55
6 x 8	.....	.65	3.45	12 x 15	.....	2.25	13.25
6 1/2 x 8 1/2	.....	.75	4.05	12 x 17	.....	2.80	15.20
6 x 10	.....	.80	4.60	14 x 17	.....	3.00	17.50
7 x 9	.....	.80	4.70	16 x 20	.....	4.00	23.15
7 1/2 x 9 1/2	.....	.90	5.25				
7 x 11	.....	1.00	5.95				
8 x 10	.....	1.00	5.95				
8 x 12	.....	1.25	7.20				

## ARTURA Post Cards

Gross.....\$2.00 500.....\$6.75

## CARBON BLACK (Projection)

GLOSSY: Regular Weight.  
 STUDIO SPECIAL: Regular Weight—Smooth semi-matt.  
 MATT: Regular Weight—Smooth, with slight sheen.  
 ROUGH MATT: Double Weight—Medium rough lustre.  
 EXTRA HEAVY: Double Weight—Smooth semi-matt.  
 GRADE D: Double Weight—Medium rough absolute matt, no lustre.  
 BUFF: Double Weight—Buff medium rough lustre.  
 GRADE E SMOOTH: Double Weight—Buff smooth absolute matt, no lustre.  
 GRADE E ROUGH: Double Weight—Buff medium rough absolute matt, no lustre.

Glossy Studio Special Matt Regular Weight				Rough Matt Extra Heavy Grade D Buff			
Sizes	Dozen	Half Gross	Gross	Grades E-Smooth and Rough Double Weight	Sizes	Dozen	Half Gross
3 7/8 x 5 1/2	.....	.85	\$ 1.50	3 7/8 x 5 1/2	.....	.....	\$ 1.10
4 x 6	.....	.95	1.70	4 x 6	.....	.....	1.25
5 x 7	.....	1.50	2.65	5 x 7	.....	.....	2.00
5 x 8	.....	.30	1.75	5 x 8	.....	.....	2.25
6 x 8	.....	.40	2.10	6 x 8	.....	.....	2.75
6 1/2 x 8 1/2	.....	.45	2.50	6 1/2 x 8 1/2	.....	.....	3.25
7 x 9	.....	.50	2.85	7 x 9	.....	.....	3.75
7 1/2 x 9 1/2	.....	.60	3.25	7 1/2 x 9 1/2	.....	.....	4.25
7 x 11	.....	.60	3.60	8 x 10	.....	.....	4.75
8 x 10	.....	.60	3.60	9 x 11	.....	.....	5.75
9 x 11	.....	.75	4.35	10 x 12	.....	.....	7.00
10 x 12	.....	.90	5.30	11 x 14	.....	.....	9.25
11 x 14	.....	1.20	6.80	12 x 15	.....	.....	10.85
12 x 15	.....	1.35	8.15	14 x 17	.....	.....	14.00
14 x 17	.....	1.80	10.40	16 x 20	.....	.....	18.50
16 x 20	.....	2.40	14.00	18 x 22	.....	.....	23.50
18 x 22	.....	3.00	18.00	20 x 24	.....	.....	28.00
20 x 24	.....	3.60	21.50				

## CARBON BLACK Post Cards (Semi-matt Surface Only)

Gross.....\$2.00 500.....\$6.75

15 % Discount Orders up to \$25.00 List.  
 17 1/2 % Discount Orders over \$25.00 List.

# PROFESSIONAL DEFENDER

Contact, Enlarging and Proof Paper

## PRICE LIST (CONTACT)

S. W. Veltex				D. W. Veltex				D. W. Buff Silk			
S. W. Glossy (1)				D. W. Matt (3 & 10)				D. W. Buff Linen (7)			
S. W. Semi-Matt (2)				D. W. Semi-Matt (4)				D. W. White Linen (8)			
Med. Wgt. Rough Matt (9)				D. W. Plat. Matt (5 & 6)							
Sizes		Doz.	Gross	Doz.		Gross	Doz.		Gross		
3 7/8 x 5 1/2	....	\$ .20	\$ 1.90	\$ .25	\$ 2.40	\$ .25	\$ 2.60				
4 x 6	....	.20	1.90	.25	2.40	.25	2.60				
5 x 7	....	.35	3.35	.45	4.20	.40	4.60				
5 x 8	....	.40	4.00	.50	5.00	.55	5.50				
6 1/2 x 8 1/2	....	.60	5.90	.75	7.40	.80	8.10				
6 x 10	....	.65	6.40	.80	8.00	.90	8.80				
7 1/2 x 9 1/2	....	.75	7.60	.95	9.50	1.10	10.50				
7 x 11	....	.80	8.50	1.00	10.65	1.10	11.70				
8 x 10	....	.80	8.50	1.00	10.65	1.10	11.70				
8 x 12	....	1.00	10.20	1.25	12.75	1.40	14.00				
9 x 11	....	1.00	10.50	1.25	13.15	1.40	14.50				
9 x 14	....	1.30	13.40	1.65	16.80	1.80	18.50				
10 x 12	....	1.20	12.75	1.50	16.00	1.65	17.60				
11 x 14	....	1.60	16.40	2.00	20.50	2.20	22.50				
12 x 17	....	2.10	21.70	2.70	27.15	2.95	29.90				
14 x 17	....	2.40	25.30	3.00	31.65	3.30	34.80				
16 x 20	....	3.20	34.00	4.00	42.50	4.40	46.70				
18 x 22	....	4.00	42.00	5.00	52.50	5.50	57.70				
20 x 24	....	4.80	51.00	6.00	63.75	6.60	70.00				

The list on half-gross packages is one half the gross list.

## Professional Defender in Rolls

Single Weight	Size	Double Weight
\$ 1.90	10 ft. 20 in. wide	\$ 2.25
3.80	10 ft. 40 in. wide	4.50
5.00	10 yd. 20 in. wide	5.85
10.00	10 yd. 40 in. wide	11.70

## VELOUR BLACK

White and Buff Silk (Projection)

(Double Weight)

Other surfaces list the same as Vitava Rapid Black Dwt.

## PRICE LIST

Sizes	Dozen	Gross	Sizes	Dozen	Gross
4 x 6	.....	\$ 2.25	11x14	.....	\$1.75
5 x 7	.....	.40	14x17	.....	2.65
5 x 8	.....	.45	16x20	.....	3.50
6 1/2 x 8 1/2	.....	.65	18x22	.....	4.40
7 x 9	.....	.70	20x24	.....	5.30
7 1/2 x 9 1/2	.....	.85			
7 x 11	.....	.90			
8 x 10	.....	.90			
9 x 11	.....	1.10			
10 x 12	.....	1.35			

The list on half-gross packages is one half the gross list.  
 Velour Black Buff Silk in Rolls  
 10 ft.—25 in. wide.....\$2.00  
 10 yd.—25 in. wide..... 5.95

## PROOF PAPERS

Eastman and Disco

Sizes	Gross	Sizes	Gross
Cabt. ....	\$1.35	8x10 .....	\$5.30
4 x 6 .....	1.50		
5 x 7 .....	2.30		
7 x 9 .....	4.15		
7 1/2 x 9 1/2 .....	4.70		

## Disco (Seconds)

Cabt. ....	\$1.10
5x7 .....	1.85

15% Discount on Velour Black and Prof. Defender Orders less than \$25.00 List.  
 17 1/2 % Discount on Velour Black and Prof. Defender Orders over \$25.00 List.  
 10% Discount on Eastman Proof Paper. Net on Disco Seconds.



## Holliston Photo Cloth

for Backing Photographs

Holliston Photo Cloth is a specially prepared fabric. Being self adhesive it requires no paste and it comes to you already cut in standard sheet sizes. These advantages eliminate the waste and labor expense of cutting cloth piece by piece to the proper size and the slow and mussy operation of pasting. Holliston Photo Cloth produces clean, perfect prints free from paste marks, lumps and blisters. The prints will be flexible yet firm and they will not curl or fray.

### DIRECTIONS FOR USE

Many photographers use various methods to conform with their own working conditions. An observance of the following directions will insure satisfactory results in all cases.

#### Glossy Prints

After the print is thoroughly washed and placed face down on the ferrotype plate (but not squeegeed), a dry sheet of Photo Cloth is placed adhesive side down on the print. Then run a wet sponge over the back of the cloth and squeegee in the usual way with a flat hand squeegee to remove all surplus water. Leave on ferrotype plate until dry.

The same method may be used with a wringer.

#### Photostat, Matte or Blue Prints

Take a sheet of Photo Cloth a little larger than the print to be backed. Run the cloth through a tray of water, then place it on a flat surface (glass preferably), adhesive side up. Immediately thereafter lay the print on the Photo Cloth and squeegee the print and cloth together.

A double belt dryer may be used to dry Photo Cloth and print together.

### SHEETS

Net Price per 100 sheets. In packages of 100 and 500 sheets.  
(Minimum order 100 sheets)

Size	100 to 500 Sheets	500 to 2500 Sheets	2500 to 5000 Sheets	5000 to 10000 Sheets	10000 Sheets or More
9x12	\$2.10	\$2.00	\$1.95	\$1.90	\$1.85
10x12	2.35	2.30	2.25	2.20	2.15
11x14	2.95	2.90	2.85	2.80	2.75
12x17	3.90	3.80	3.70	3.65	3.60
12x18	4.15	4.05	3.95	3.85	3.75
14x20	5.75	5.60	5.40	5.30	5.25
18x24	8.20	7.85	7.70	7.55	7.40

(A)

### ROLLS

Rolls are 36 in. wide and approximately 40 yds. in length.  
(Minimum Order 10 Yards)

Less than roll (40 yards) lots	Net 25c	per yd.
40 to 250 yards	Net 24½c	per yd.
250 to 500 yards	Net 24c	per yd.
500 to 1000 yards	Net 23½c	per yd.
1000 to 2500 yards	Net 23c	per yd.
2500 to 5000 yards	Net 22½c	per yd.
5000 yards or more	Net 22c	per yd.

### HINGES

(In packages of 1000 only)

Net Per Thousand	Net Per Thousand
1x10.....\$1.25	2x10.....\$2.00
1x12.....1.25	2x12.....2.00
2x 8.....2.00	2x17.....3.25

### SPECIAL SIZES

Sheets in special sizes will be furnished in gradations of ½ inch on orders for not less than 500 sheets of a size. In most cases it will be more economical to use the standard sizes.

## Art Canvas

(Sensitized)

Art Canvas is not a paper but real artists' canvas, sensitized. It is highly desirable for all kinds of color work. By using this material you can put true individuality into your work. Art Canvas is furnished in an enlarging grade only.

### NET PRICE LIST

	Doz.	½ Gross	Gross
4 x 5	\$ 0.85	\$ 4.80	\$ 9.40
4 x 6	1.00	5.65	11.00
5 x 7	1.50	8.30	16.50
5 x 8	1.75	10.00	19.50
6 x 8	2.00	11.25	22.25
6½ x 8½	2.25	13.00	25.25
6 x 10	2.50	14.50	28.25
7 x 10	2.75	16.00	31.25
8 x 10	3.00	17.50	34.00
10 x 12	4.30	25.00	49.50
10 x 14	5.00	29.50	58.00
11 x 14	5.50	32.25	63.50
12 x 17	7.25	42.50	84.00
14 x 17	8.50	50.00	99.00
16 x 20	11.50	67.50	134.00
20 x 24	14.00	83.00	164.00
20 x 26	18.00	106.50	211.00
20 x 28	19.00	112.00	223.00
20 x 30	20.50	120.00	240.00

(A)

### ROLLS

Length	32 Inch Width	40 Inch Width
10 feet	\$12.50	\$16.00
5 yards	18.00	23.00
10 yards	35.00	45.00
25 yards	85.00	109.00

(A)

ART CANVAS is furnished in widths up to and including 72 inches.

Formula and complete instructions furnished with each package.

## Dry Mounting Tissue

An adhesive that sticks without moisture, mounted by pressure of hot iron or heated press.

### PRICES

Size	Per Gross	Size	Per Gross
4 x 5	\$0.50	7x11	\$1.90
5 x 7	1.00	8x10	1.90
5 x 8	1.00	10x12	3.10
3½x12	1.00	11x14	3.75
5½x 7¾	1.00	12x15	4.40
6½x8½	1.50	14x17	5.60
7 x 9	1.50	16x20	7.50

(C)



## Embossing Name Dies

Suggestions of imprinting name dies for photographic card folders and mountings. We will make any special designs regardless of how plain or elaborate. Merely furnish us with a rough sketch of your specification for our artist.



No. 40



No. 41



No. 42



No. 101



No. 107



No. 102



No. 103



No. 104



No. 108



No. 109

Note: See page No. 127 for prices, etc.

## Embossing Name Dies—(Continued)



No. 43



No. 44



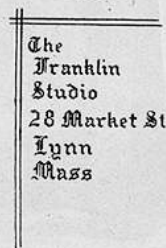
No. 45



No. 46



No. 47



No. 48

### PRICES FOR NAME DIES

Dies of the above specifications will cost \$3.50 to \$7.50 net. Special designs up to \$15.00 net, depending on the number of letters—size—and ornamentation.

We will furnish to our Customers Dies for ink imprinting WITHOUT CHARGE on all orders for 500 mounts, such dies not to exceed \$5.00 in cost and to remain in our possession for imprinting of future orders when so instructed.

## Card Mountings and Folders

We are illustrating and offering for immediate shipment the latest designs in special mountings obtainable from different factories embracing attractive saleable numbers selected after careful thought being given to demands of the professional trade.

There are FOUR REASONS why this line which we are offering will appeal to you, i. e., SERVICE—QUALITY—PRICE—INVESTMENT.

## Discount on Mounts and Imprinting Charges

In addition to the low popular 100 lot prices of our mounts we are making the following discounts and allowances:

Less than 500.....Net prices and regular prices for imprinting.

500 to 1000 assorted....5% discount (or imprinting without charge).

1000 or more assorted.10% discount (or 5% discount and imprinting without charge).

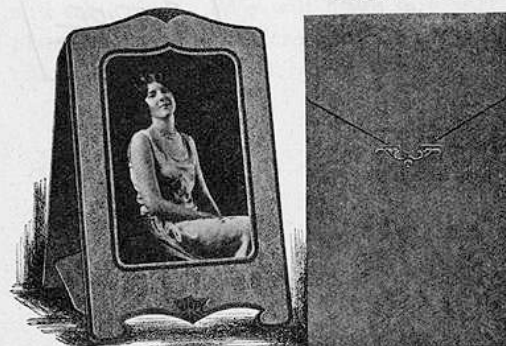
Imprinting (raised work in color) charges vary from 5% to 10% of mount cost, depending upon design of mount and quality.

Illustration, description and prices of our mounts grouped as EASELS, FOLDERS and VIEWS follow:



## THE PERSIA

Slip-In Easel Folder—Swirl Tone Stock  
Stipple Surface



THE PERSIA is made in Neutral only:

Swirl Neutral enclosing Snowdrift Light Neutral Card.

Order No.	Folder	Photo	Per 100
34-S	4 1/4 x 6 1/2	3 x 4	\$8.00
35-S	4 3/8 x 7 1/4	3 1/2 x 5	9.00
46-S	5 1/8 x 8 1/2	4 x 6	13.50
57-S	6 3/8 x 9 3/8	5 x 7	17.00

50 in a box.

## THE PARMENA

Slip-In Easel Folder—Swirl Tone Stock  
Rough Antique Surface

Made in three colors:  
Grey, Neutral and Brown

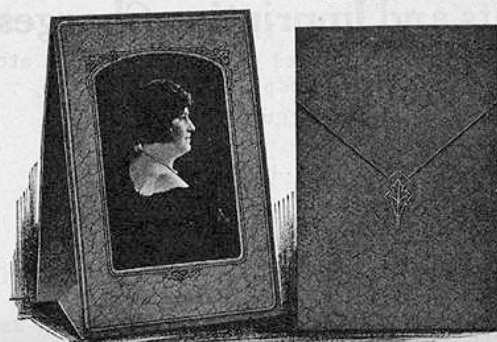
Order No.	Folder	Photo	Per 100
46-S	5 7/8 x 8 5/8	4 x 6	\$10.50
57-S	6 3/4 x 9 5/8	5 x 7	13.50
58-S	7 1/2 x 10 1/2	5 x 8	14.50
68-S	8 3/8 x 11 1/8	6 1/2 x 8 1/2	18.00
80-S	10 3/4 x 14	8 x 10	22.00

Sizes 46, 57 and 58—50 in a box. Sizes 68 and 80—25 in a box.



## THE PASCO

Slip-In Easel Folder—Sumatra Tone Stock  
Sumatra Surface



Colors: Grey and Neutral

Order No.	Folder	Photo	Per 100
34-S	4 1/2 x 6 1/2	3 x 4	\$5.50
35-S	4 3/4 x 6 3/4	3 1/2 x 5	6.25
46-S	5 1/8 x 8 3/8	4 x 6	7.65
57-S	6 3/8 x 9 3/8	5 x 7	9.75

50 in a box.

## POMAR

Slip-In Easel—Pampa Tone Stock  
Rough Bark Surface

Pampa Gray enclosing Fabra Light Gray Card.

Pampa Brown enclosing Fabra Light Brown Card.

Order No.	Folder	Photo	Per 100
46-S	5 7/8 x 8 5/8	4 x 6	\$ 9.85
57-S	6 3/4 x 9 5/8	5 x 7	12.25
68-S	8 3/8 x 11 1/8	6 1/2 x 8 1/2	17.50

Sizes 46 and 57—50 in a box. Size 68—25 in a box.



## PALATINE

Cut Corner Pocket Easel—Pampa Tone Stock  
Leather Surface



Pampa Gray enclosing Fabra Light Gray Card.

Pampa Brown enclosing Fabra Light Brown Card.

Order No.	Folder	Photo	Per 100
34	4 1/4 x 5 1/4 (1/2 of 4x6)	3 x 4	\$5.25
35	4 3/8 x 5 3/8 (1/2 of 5x7)	3 1/2 x 4 1/2	5.75
36	5 1/8 x 7 1/8 (4x6 trim)	3 3/4 x 5 1/4	7.75

50 in a box.

## PLATO

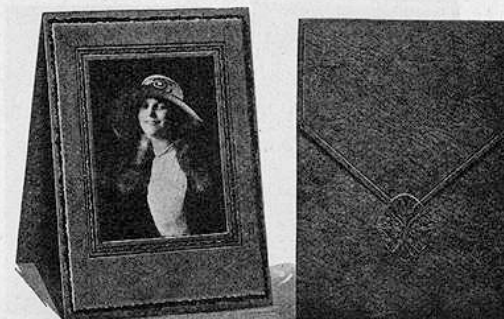
Slip-In Easel—Devon Tone Stock  
Levant Leather Surface

Cornish Gray enclosing Cornish Gray Card.

Cornish Brown enclosing Cornish Brown Card.

Order No.	Folder	Photo	Per 100
34-S	4 1/2 x 6 1/2	3 x 4	\$6.45
35-S	4 3/4 x 6 3/4	3 1/2 x 5	7.65

50 in a box.

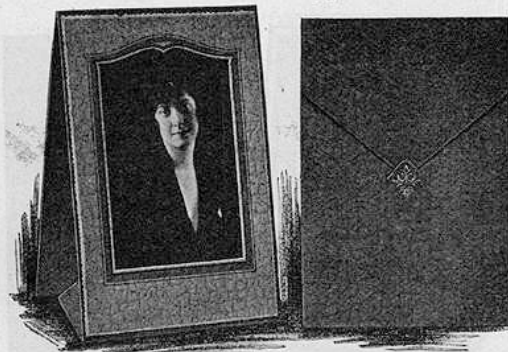




**"ORDER FROM NORMAN-WILLETS" CHICAGO**

## THE PANAMA

Slip-In Easel Folder—Sumatra Tone Stock  
Ripple Leather Surface



Colors: Grey and Neutral

Order No.	Folder	Photo	Per 100
34-S	4½ x 6½	3 x 4	\$ 6.00
35-S	4¾ x 6¾	3½ x 5	7.00
46-S	5½ x 8½	4 x 6	8.75
57-S	6¾ x 9¾	5 x 7	10.50

50 in a box.

## THE PASTELLO

Slip-In Easel Folder—Swirl Tone Stock  
Stipple Surface



Colors: Grey and Neutral

Order No.	Folder	Photo	Per 100
34-S	4½ x 6¼	3 x 4	\$7.00
35-S	4¾ x 6¾	3½ x 5	8.00

50 in a box.

## THE POMPONIA

Cut Corner Pocket Easel Folder—Web Tone Stock  
Coarse Linen Surface



Three colors:

Web Gray, Web Neutral,  
and Web Brown

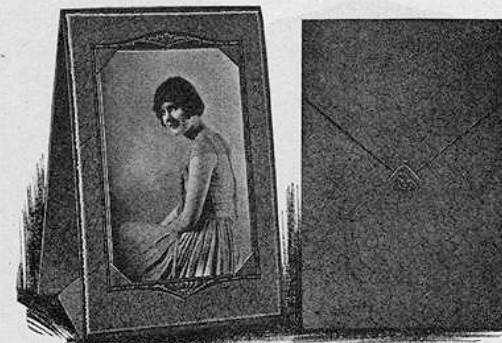
Order No.	Folder	Photo	Per 100
46	5½ x 8½	3½ x 5½	\$10.75
57	6¾ x 9¾	4½ x 6½	13.00
58	7½ x 10½	4¾ x 7¾	14.50
68	8½ x 11½	6 x 8	17.50
80	10¼ x 14	7 x 9½	22.50

Sizes 46, 57 and 58—50  
in a box. Sizes 68 and 80  
—25 in a box.

**"ORDER FROM NORMAN-WILLETS" CHICAGO**

## THE PARO

Cut Corner Pocket Easel Folder—Sumatra Tone Stock  
Sumatra Surface



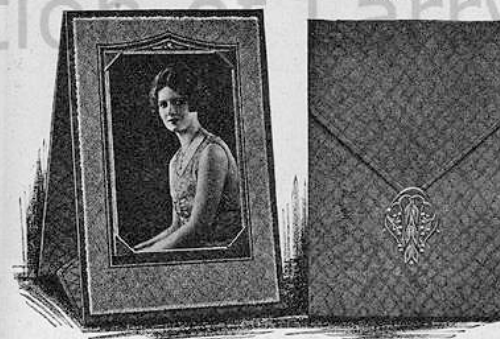
Colors: Grey and Neutral

Order No.	Folder	Photo	Per 100
34	4½ x 6½	3 x 4	\$ 5.75
35	4¾ x 6¾	3 x 4½	6.50
46	5½ x 8½	4 x 6	7.85
57	6¾ x 9¾	4½ x 6½	10.25

50 in a box.

## THE PATRICIA

Cut Corner Pocket Easel Folder—Web Tone Stock  
Stipple Surface



Colors: Grey and Neutral

Order No.	Folder	Photo	Per 100
34	4½ x 6¼	3 x 4	\$6.50
35	4¾ x 6¾	3 x 4½	7.25

50 in a box.

## PRESCOTT

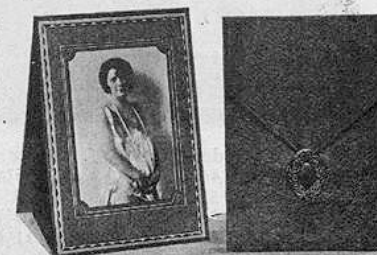
Slip-In Easel—Devon Tone Stock  
Leather Surface

Three piece construction and is highly  
decorative in appearance.

Made in two colors: Devon Grey  
with light insert and Devon Brown  
with light insert.

Order No.	Folder	Opening	Photo	Per 100
34-S	4½ x 6¼	2¾ x 3¾	3 x 4	\$ 7.35
35-S	4¾ x 6¾	3 x 4½	3½ x 5	7.95
46-S	5½ x 8½	3½ x 5½	4 x 6	11.50

50 in a box.

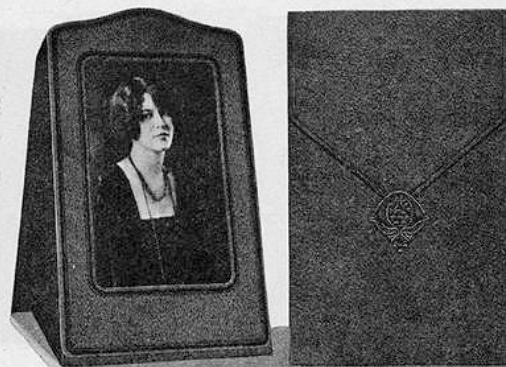




**"ORDER FROM NORMAN-WILLETS" CHICAGO**

**POMEROY**

Slip-In Easel Folder—Devon Tone Stock  
Levant Leather Surface



A distinctly new and novel effect in Easel Mountings.

Devon Gray enclosing Devon Light Gray Card.

Devon Neutral enclosing Devon Light Neutral Card.

Order No.	Folder	Photo	Per 100
34-S	4 1/4 x 6 1/2	3 x 4	\$6.25
35-S	4 5/8 x 7 1/4	3 1/2 x 5	7.35
46-S	5 1/2 x 8 7/8	4 x 6	9.85

50 in a box.

**THE PANELLA**

Cut Corner Pocket Easel Folder—Swirl Tone Stock  
Stipple Surface

Swirl Gray enclosing Snowdrift Light Gray Card.

Swirl Neutral enclosing Snowdrift Light Neutral Card.

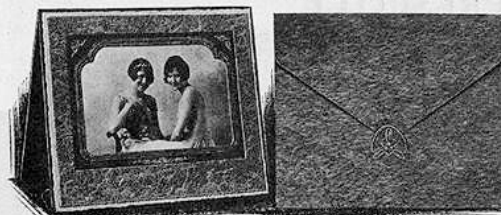
Order No.	Folder	Photo	Per 100
34	4 1/4 x 6 1/2	3 x 4	\$ 7.50
35	4 5/8 x 7 1/4	3 x 4 1/2	8.50
46	5 1/2 x 8 7/8	3 3/4 x 5 3/4	11.00
57	6 1/2 x 9 3/4	4 1/2 x 6 1/2	13.50

50 in a box.



**THE PANTANO**

Horizontal Slip-In Easel Folder—Swirl Tone Stock  
Rough Antique Surface



Swirl Gray enclosing Snowdrift Light Gray Card.

Swirl Neutral enclosing Snowdrift Light Neutral Card.

Swirl Brown enclosing Snowdrift Light Brown Card.

Order No.	Folder	Photo	Per 100
46-S	8 1/4 x 6 7/8	6 x 4	\$11.50
57-S	9 1/2 x 8	7 x 5	14.00
68-S	11 x 9 3/4	8 1/2 x 6 1/2	18.50
80-S	12 7/8 x 11 1/8	10 x 8	22.00

Sizes 46 and 57—50 in a box. Sizes 68 and 80—25 in a box.

**"ORDER FROM NORMAN-WILLETS" CHICAGO**

**WINDSOR**

**CORNER POCKET CASE**

The Popular Enclosure for School Work.

Upright—EZL Back

Fold back cover and insert tab in slot.

Gray and Brown

Imprint on front

Size	Folder	Photo	Per 100
No. 34	4 x 6 3/8	3x4 Sq.	\$5.50
No. 35	4 1/4 x 7 1/4	3x4 3/4 Sq.	6.00

50 in a box



**CLEARWOOD**

**CORNER POCKET CASE**

Horizontal—EZL Back

Fold back cover and insert tab in slot.

Gray and Brown

Size	Folder	Photo	Per 100
4x6	8 1/2 x 5 1/2	6 x 4	\$10.00
5x7	10 x 6	6 3/4 x 4 3/4	13.00

50 in a box



**REDWOOD**

**CORNER WING EASEL**

Upright

Made in Grey only

Folder	Photo	Per 100
No. 70.....	8 1/2 x 13	7x10

\$20.00

25 in a box



## WEDGWOOD

### CORNER POCKET CASE

Upright—EZL Back

Fold back cover and insert tab in slot.

Gray and Brown

For imprint on outside

Size	Folder	Photo	Per 100
No. 46	5¼x8½	4 x6 Sq.	\$9.00
No. 57	6 x10	4¾x6¾ Sq.	12.00
No. 58	6 x11	4¾x7¾ Sq.	13.00

50 in a box



## WINWOOD

### CORNER POCKET CASE

Very similar in design to WINDSOR but with light grey or brown insert. Supplied in sizes 3x4 to and including 5x7. Same prices as WINDSOR and WEDGWOOD.



## SEAWOOD

### CORNER POCKET CASE

Upright—EZL Back

Fold back cover and insert tab in slot.

Gray and Brown

Similar to WEDGWOOD in design except has space at the bottom of the mount for imprint.

Size	Folder	Photo	Per 100
No. 34	4 x 6½	3x4 Square	\$ 5.50
No. 35	4 x 7	3x5 Square	6.00
No. 46	5¼x 8½	4x6 Square	9.00
No. 57	6 x10	5x7 Square	12.00

50 in a box

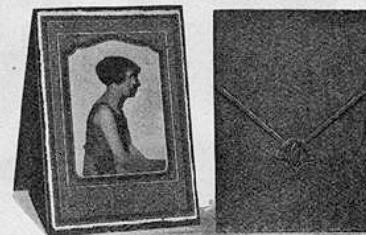
## PAXTON

Slip-In Easel—Pampa Tone Stock  
Rough Bark Design (patented)

The PAXTON is made in two colors: Pampa Gray enclosing Fabra Light Gray Card, Pampa Brown enclosing Fabra Light Brown Card.

Order No.	Folder	Photo	Per 100
34-S	4½x6¼	3 x4	\$6.55
35-S	4¾x6¾	3½x5	7.75
46-S	5¾x8½	4 x6	9.95

50 in a Box



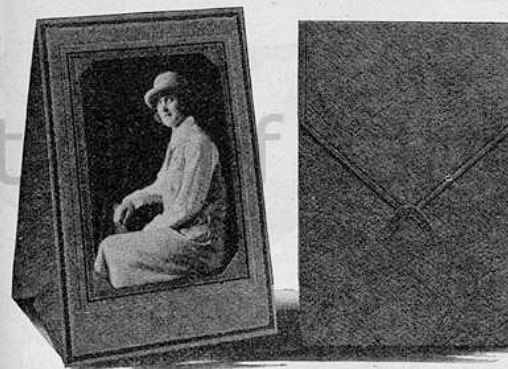
## PARKMAN

Cut Corner Pocket Easel—Cornish Stock  
Leather Surface

The PARKMAN is made in two colors: Cornish Gray enclosing Cornish Gray Card, Cornish Brown enclosing Cornish Brown Card.

Order No.	Folder	Photo	Per 100
34	4½x6¼	3 x4	\$5.95
35	4¾x6¾	3½x4½ (½ of 5x7)	6.95
46	5¾x8½	3¾x5½ (4x6 trim)	8.95

50 in a box.



## THE PATINO

Horizontal Cut Corner Easel Folder—Sumatra Tone Stock  
Sumatra Surface

The PATINO is made in two colors: Sumatra Gray enclosing Sumatra Light Gray Card, Sumatra Neutral enclosing Sumatra Light Neutral Card.

Order No.	Folder	Photo	Per 100
46	7¾x 6¾	3¾x5¾	\$ 9.50
57	8¾x 7¾	4¾x6¾	10.50
68	10¾x 9¼	6 x8	15.50
80	11¾x10½	7 x9¼	17.50

Sizes 46 and 57—50 in a box. Sizes 68 and 80—25 in a box.





## BYWOOD

### CORNER POCKET CASE

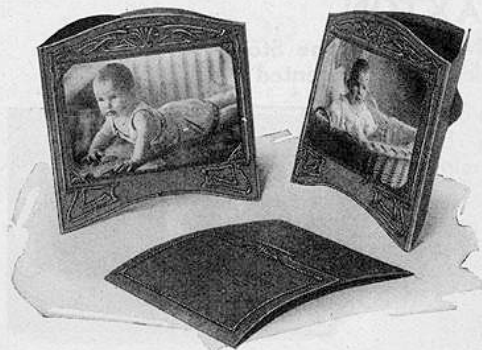
EZL Back

Fold back cover and insert tab in slot.

Gray and Brown

Size	Folder	Photo	Per 100
No. 46	7x7	6 x4	Sq. \$10.00
No. 57	8x8	6 3/4 x 4 3/4	Sq. 13.00

50 in a box



## FARWOOD

### 2-in-1

Can be used for HORIZONTAL or VERTICAL prints

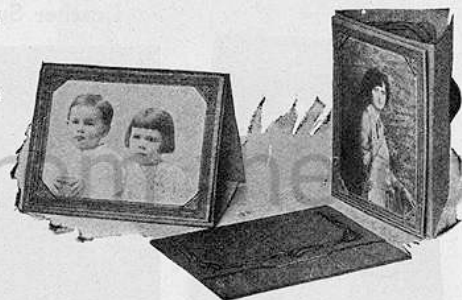
EZL Back

Fold back cover and insert tab in slot.

Gray and Brown

Size	Folder	Photo	Per 100
No. 34	3 3/4 x 4 3/4	3 x4	Sq. \$5.00
No. 35	4 1/4 x 5 1/2	3 x4 3/4	Sq. 5.50
No. 46	4 1/2 x 6 1/2	4 x6	Sq. 6.50
No. 57	5 1/4 x 7 1/4	4 3/4 x 6 3/4	Sq. 8.00
No. 70	8 x 10 1/4	7 1/2 x 9	Sq. 12.50

50 in a box



## BARCELONA

Cut Corner Folder—Devon Tone Stock  
Leather Surface

Devon Gray enclosing  
Devon Light Gray Card.

Devon Neutral enclosing  
Devon Light Neutral Card.

Devon Brown enclosing  
Devon Light Brown Card.



Order No.	Folder	Photo	Per 100
46	5 7/8 x 8 7/8	(4 x 6 trim)	3 7/8 x 5 7/8 \$ 7.35
57	6 3/8 x 9 3/8	(5 x 7 trim)	4 1/2 x 6 1/2 8.35
68	9 1/8 x 13	(6 1/2 x 8 1/2 trim)	6 x 8 14.75
80	9 7/8 x 14	(8 x 10 trim)	7 x 9 3/8 15.85

Sizes 46 and 57—50 in a box. Sizes 68 and 80—25 in a box.

## TWINWOOD

EZL Back—Double Wing Easel  
Grey and Brown



A new and unique design of easel for double photographs. An exclusive patented mount ideal for small pictures which can be easily sold if shown.

Advertises your imprint. Either open or closed.

	Photo	Per 100
No. 235	2—3x4 3/4	\$13.00

100 to box.

## Slip-In and Cut Corner Folders

### BEECHWOOD FOLDER

Slip-in Mounting

An Attractive Mounting at a Popular Price.

BROWN AND GRAY

Upright

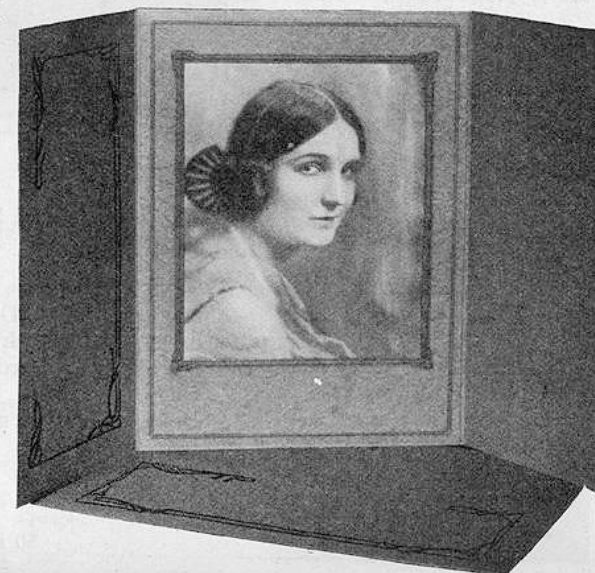
Order No. 80

Folder 10 1/2 x 14

Photo 8x10 Square

Per 100 \$12.50

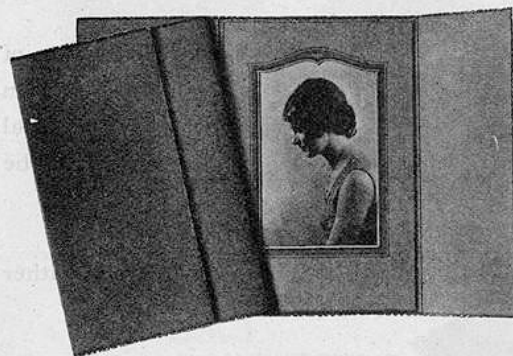
25 in a Box





## THE VELASCO

Slip-In Double-Flap Folder—Laidtone Stock  
Stipple Surface



Colors: Grey and Neutral

Order No.	Folder	Photo	Per 100
46X-S	6 1/4 x 9 1/2	4 x 6	\$ 7.50
57-S	6 3/8 x 10 7/8	5 x 7	9.00
80-S	10 1/8 x 13 7/8	8 x 10	16.00

Sizes 46 and 57—50 in a box. Size 80—25 in a box.

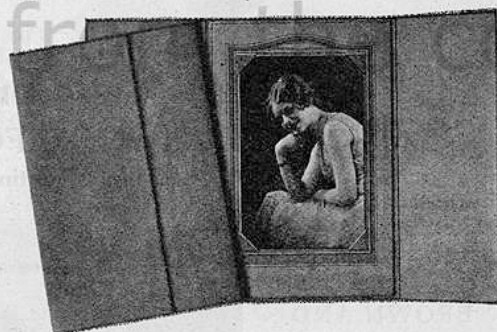
## THE BOLIVIA

Cut Corner Pocket Double-Flap Folder—Laidtone Stock  
Stipple Surface

Colors: Grey and Neutral

Order No.	Folder	Photo	Per 100
46	5 7/8 x 8 3/4	3 3/8 x 5 3/8	\$ 7.50
57	6 3/8 x 9 3/4	4 1/4 x 6 3/4	9.00
80	10 x 13 1/2	7 1/4 x 9 1/4	16.00

Sizes 46 and 57—50 in a box. Size 80—25 in a box.



## BAGDAD

Cut Corner Pocket—Devon Tone Stock  
Levant Leather Surface  
Wallet Flap

The BAGDAD is made in three colors: Devon Gray enclosing Devon Light Gray Card, Devon Neutral enclosing Devon Light Neutral Card, Devon Brown enclosing Devon Light Brown Card.

Order No.	Folder	Photo	Per 100
34	3 3/4 x 4 1/4	3 x 4	\$4.75
35	4 x 5 1/4	3 1/4 x 4 1/4	5.25
46	4 7/8 x 6 1/4	3 3/8 x 5 3/8	5.75

50 in a Box



## VIVIAN

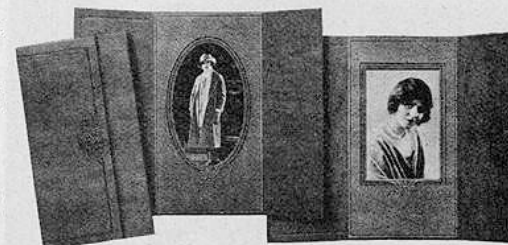
Slip-In Post Card Folder—Devon Tone Stock  
Leather Surface

Devon Gray enclosing  
Devon Light Gray Card.

Devon Brown enclosing  
Devon Light Brown Card.

Order Nos.				Per
Oval	Sq.	Folder	Photo	100
J	S	4 5/8 x 8 3/8	3 1/2 x 5 1/2	\$5.50
K	G	4 5/8 x 8 3/8	3 1/2 x 5	5.50

50 in a box.



## VIKING

Slip-In Double Flap—Devon Tone Stock  
Leather Surface

Devon Gray enclosing  
Devon Light Gray Card.

Devon Neutral enclosing  
Devon Light Neutral Card.

Devon Brown enclosing  
Devon Light Brown Card.

Order No.	Folder	Photo	Per 100
46X-S	6 1/4 x 9	4 x 6	\$ 6.50
57-S	7 x 10 3/4	5 x 7	8.25
68-S	9 1/4 x 13 1/4	6 1/2 x 8 1/2	13.75
80-S	10 1/4 x 14	8 x 10	14.90

Sizes 46 and 57—50 in a box. Sizes 68 and 80—25 in a box.



## View, Enlargement and Commercial Mounts

### THE MEADOWBROOK

#### SOLID VIEW MOUNT

The MEADOWBROOK is made in two colors: Ash Gray and Hazel Brown. Sizes and Prices of the Meadowbrook:

Order No.	Card	Photo	Per 100
A	7 x 9	4 x 6	\$4.00
B	8 x 10	5 x 7	4.25
C	10 x 12	6 1/2 x 8 1/2	5.50
D	12 x 14	8 x 10	7.25

50 in a box.





## View, Enlargement and Commercial Mounts

### THE CLEARFIELD SLIP-IN VIEW MOUNT

The CLEARFIELD is made in two colors: Olive Gray and Rouge Brown.

Sizes and Prices of the Clearfield:

Order No.	Card	Photo	Per 100
57	7 1/4 x 9 3/4	5 x 7	\$ 6.50
60	9 x 13	6 x 10	10.25
68	9 x 11	6 1/2 x 8 1/2	8.75
71	10 x 13 1/2	7 x 11	12.75
80	11 x 13	8 x 10	10.75

25 in a box.



### GLOBE

#### SLIP-IN MOUNTING

Light Gray and Parisian Brown.

Order No.	Card	Photo	Per 100
B	7 3/4 x 9 3/4	5 x 7	\$ 6.00
C	9 3/4 x 11 3/4	6 1/2 x 8 1/2	8.00
EF	9 3/4 x 13 3/4	6 x 10	10.00
D	11 3/4 x 13 3/4	8 x 10	10.00
No. 711	10 3/4 x 14 3/4	7 x 11	12.00
No. 717	10 3/4 x 19 3/4	7 x 17	20.00
E	14 x 17	11 x 14	20.00

25 in a box.



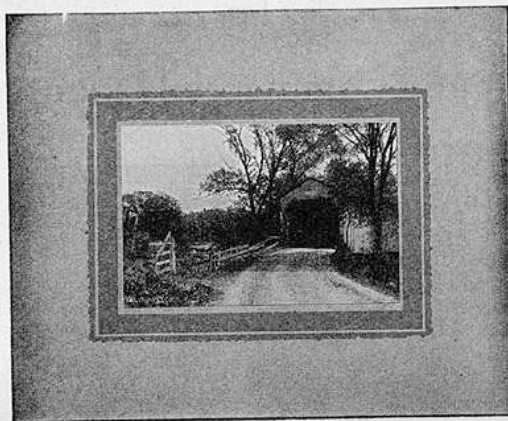
### ENLARGEMENT FLEXIBLE MOUNT

For Dry or Tip-on Mounting.

Cloud Gray and Sable Brown.

Order No.	Card	Photo	Per 100
PC	7 x 9 1/4	3 1/4 x 5 1/2	\$ 2.75
B	9 x 11	5 x 7	3.50
C	11 x 13	6 1/2 x 8 1/2	5.00
EF	10 1/2 x 14	6 x 10	5.25
D	12 x 14	8 x 10	5.25
E	17 x 20	11 x 14	13.50

100 in a box.

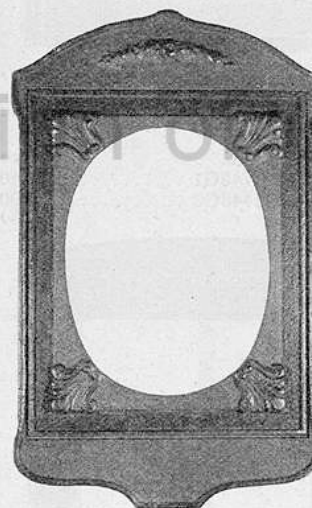


## "Norwil" Plaque Frames

"Quality First"

We are offering our own special and exclusive line of "PLAQUE" and "SWING" frames, which are, in design and size, made up to meet all requirements of the portrait trade and sufficient stock is maintained to care for volume demands.

Our "DeLuxe" line of Swing and Plaque frames are all guaranteed hand finished, toned, ornamented and burnished, our posts are all doweled and glued into the base (not screwed in—exception Nos. F0940 to F0943), and this prevents them from getting loose. This is an important point in retailing high class frames.



Finish—Dull gold trim with Polychrome, Maroon and Green Body.

Finish—Antique silver outline with Olive Grey Body.

Size	Cat. No.	Price	Size	Cat. No.	Price
7 1/2 x 9 1/2	F-1745G1	\$2.50	7 1/2 x 9 1/2	F-1746S1	\$2.50
11 x 14	F-1745G2	3.00	11 x 14	F-1746S2	3.00

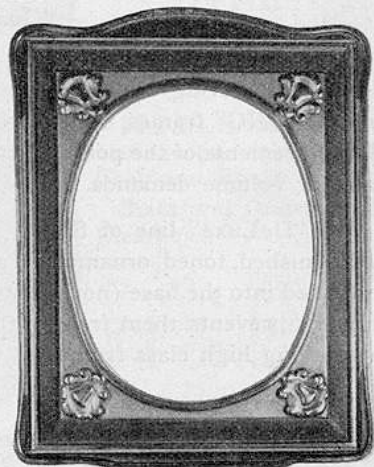
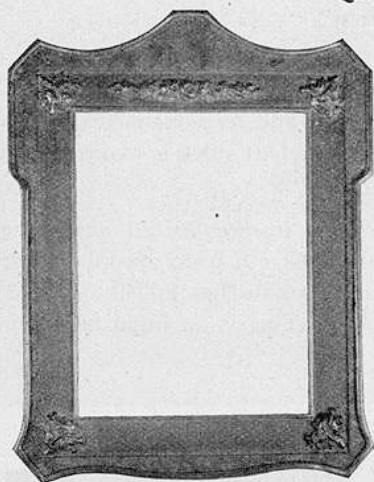
"Norwil" Plaque frames are sold without glass; packed in single cartons. The prices shown are net each.

Packed in individual boxes.  
Order by catalogue number.



## "Norwil" Plaque Frames

"Quality First"

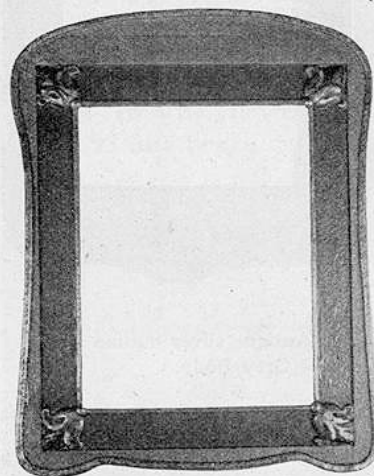


Finish—Dull gold trim with  
Polychrome Blue and Gold.

Size	Cat. No.	Price
7½x 9½	F-1747G1	\$2.50
11 x14	F-1747G2	3.00
	(A)	

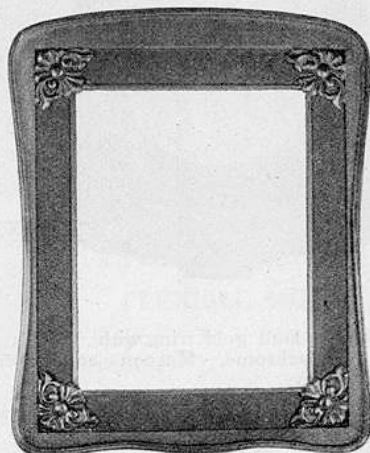
Finish—Bright gold trim with  
Dull Gold Maroon and Dark Blue  
Body.

Size	Cat. No.	Price
7½x 9½	F-1748G1	\$2.50
11 x14	F-1748G2	3.00
	(A)	



Finish—Bright silver trim with  
Dull Grey and Blue Body.

Size	Cat. No.	Price
7½x 9½	F-1749S1	\$2.50
11 x14	F-1749S2	3.00
	(A)	

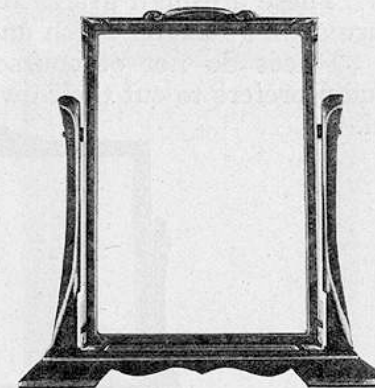
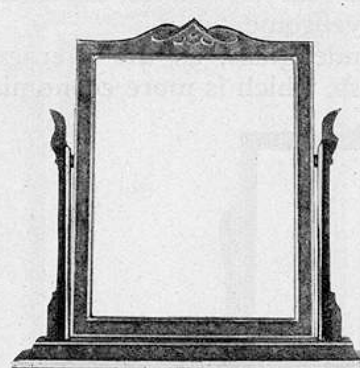


Finish—Rough silver trim with  
Blue and Antique Rough Grey.

Size	Cat. No.	Price
7½x 9½	F-1750S1	\$2.50
11 x14	F-1750S2	3.00
	(A)	

Packed in individual boxes. Order by Catalogue Number.

## "Norwil" Swing Frames

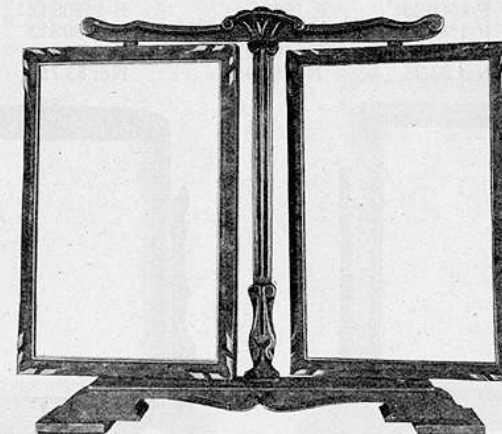


### CATALOGUE NUMBERS

Size	Silver	Brown Gold	Blue Gold
5x 7	F-1667S1	F-1667G1	F-1667B1
6x 8	F-1667S2	F-1667G2	F-1667B2
7x 9	F-1667S3	F-1667G3	F-1667B3
8x10	F-1667S4	F-1667G4	F-1667B4
Prices, each	Net \$1.40		

### CATALOGUE NUMBERS

Size	Silver	Brown Gold
4x 6	F-1671S1	F-1671G1
5x 7	F-1671S2	F-1671G2
6x 8	F-1671S3	F-1671G3
7x 9	F-1671S4	F-1671G4
8x10	F-1671S5	F-1671G5
Prices, each	Net \$1.95	



### Two-Swivel Swing CATALOGUE NUMBERS

Size	Antique Silver	Brown Gold
5x 7	F-1681S1	F-1681G1
6x 9	F-1681S2	F-1681G2
7x 9	F-1681S3	F-1681G3
8x10	F-1681S4	F-1681G4
Price, each	Net \$4.05	

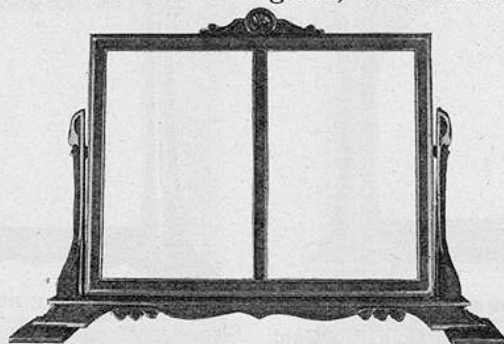
Order by catalogue number.  
Above frames packed 3 to box.



## "Norwil" Swing Frames

These are high grade "Deluxe" carved frames, all hand burnished in tiffany finish and polychrome.

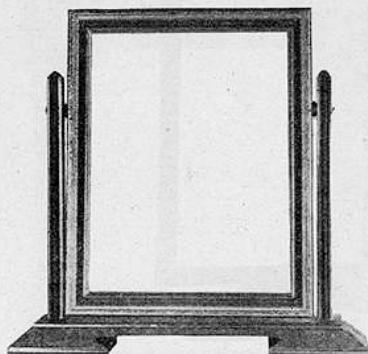
Prices do not of course include glass, as the average studio prefers to cut their own glass, which is more economical.



Ornamented—Carved Base

### CATALOGUE NUMBERS

Size	Two Openings		Three Openings	
	Silver	Gold	Silver	Gold
4x 6.....	F-1680S1	F-1680G1	F-1680S10	F-1680G10
5x 7.....	F-1680S2	F-1680G2	F-1680S11	F-1680G11
6x 8.....	F-1680S3	F-1680G3	F-1680S12	F-1680G12
7x 9.....	F-1680S4	F-1680G4	F-1680S13	F-1680G13
8x10.....	F-1680S5	F-1680G5	F-1680S14	F-1680G14
Prices, each.....	Net \$2.95	Net \$2.95	Net \$3.75	Net \$3.75

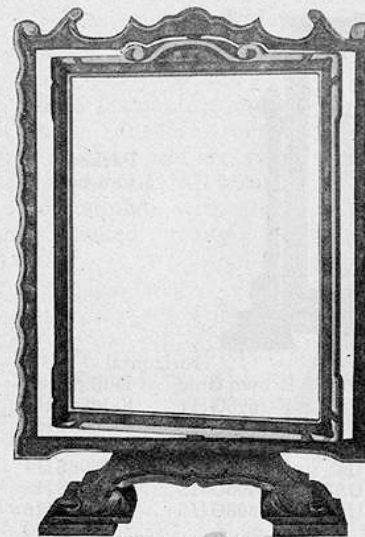


### CATALOGUE NUMBERS

Size	Silver		Gold		Size	Silver		Gold		Blue Gold
	Silver	Gold	Silver	Gold		Mottle	Mottle	Mottle	Mottle	
4 x6.....	F-1690S1	F-1690G1	5x 7....	F-1674S1	F-1674G1	F-1674B1				
5 x7.....	F-1690S2	F-1690G2	6x 9....	F-1674S2	F-1674G2	F-1674B2				
6 x8.....	F-1690S3	F-1690G3	7x10....	F-1674S3	F-1674G3	F-1674B3				
7 x9.....	F-1690S4	F-1690G4	8x10....	F-1674S4	F-1674G4	F-1674B4				
7½x9½.....	F-1690S5	F-1690G5	Prices, each.....							Net \$1.70
Prices, each.....		Net \$0.95								

Order by catalogue number.  
Above frames packed 3 to box.

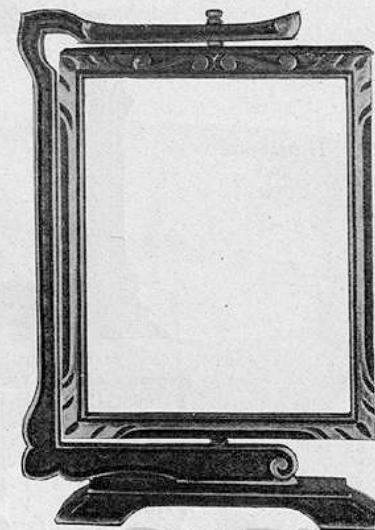
## "Norwil" Swing Frames



### Ornamented

### CATALOGUE NUMBERS

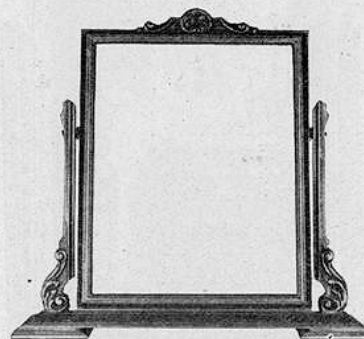
Size	Silver		Gold
	Silver	Gold	
5 x7.....	F-1651S1	F-1651G1	
6 x9.....	F-1651S2	F-1651G2	
7½x9½.....	F-1651S3	F-1651G3	
Prices, each.....		Net \$3.10	



### Side Swing

### CATALOGUE NUMBERS

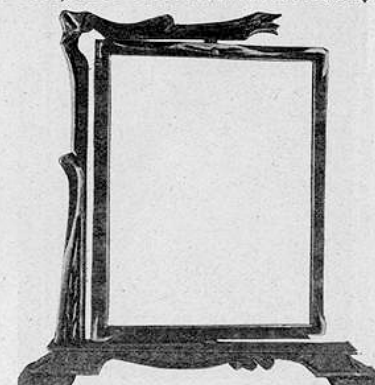
Size	Silver		Brown Gold
	Silver	Brown Gold	
6x 9.....	F-1654S1	F-1654G1	
7x 9.....	F-1654S2	F-1654G2	
8x10.....	F-1654S3	F-1654G3	
Prices, each.....		Net \$4.45	



### Ornamented—Polychrome

### CATALOGUE NUMBERS

Size	Platinum		Gold
	Platinum	Gold	
5x 7.....	F-1688P1	F-1688G1	
6x 9.....	F-1688P2	F-1688G2	
7x10.....	F-1688P3	F-1688G3	
8x10.....	F-1688P4	F-1688G4	
Prices, each.....		Net \$2.15	



### Side Swing

### CATALOGUE NUMBERS

Size	Silver		Gold	Antique
	Silver	Gold		
5 x7....	F-1678S1	F-1678G1	F-1678A1	
6 x9....	F-1678S2	F-1678G2	F-1678A2	
7 x9....	F-1678S3	F-1678G3	F-1678A3	
7½x9½....	F-1678S4	F-1678G4	F-1678A4	
Prices, each.....			Net \$2.95	

Order by catalogue number.  
Above frames packed 3 to box.



## "Norwil" Swing Frames

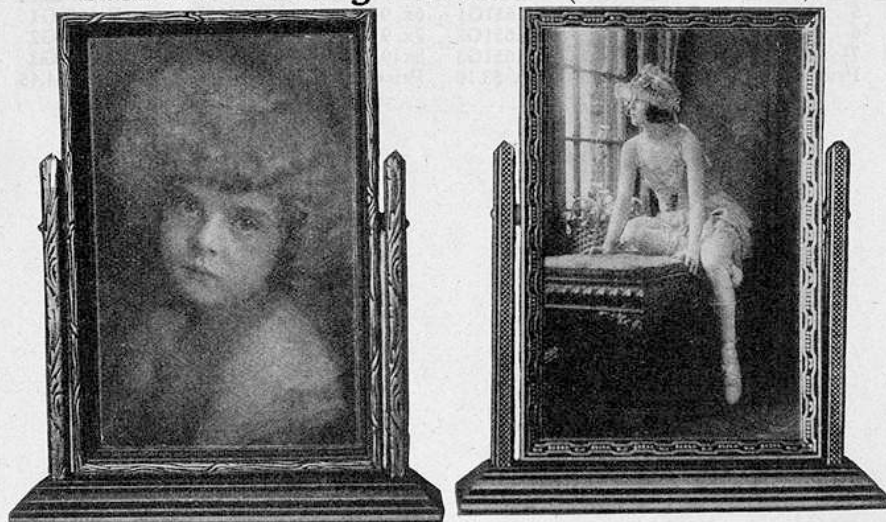
Horizontal  
and  
Upright



Packed  
3 to a box

Size	Upright		Horizontal	
	Brown Gold	Dull Silver	Brown Gold	Dull Silver
4 x 6	F-1698GU1	F-1698SU1	F-1698GH1	F-1698SH1
4½ x 6½	F-1698GU2	F-1698SU2	F-1698GH2	F-1698SH2
6 x 8	F-1698GU3	F-1698SU3	F-1698GH3	F-1698SH3
7 x 9	F-1698GU4	F-1698SU4	F-1698GH4	F-1698SH4
7½ x 9½	F-1698GU5	F-1698SU5	F-1698GH5	F-1698SH5
7 x 10	F-1698GU6	F-1698SU6	F-1698GH6	F-1698SH6
Prices, each	\$1.60			

## "Norwil" Swing Frames (Screw Post)



Size	Gold Finish	Silver Finish	Size	Gold Finish	Silver Finish
4 x 6	F-0942G5	F-0942S5	4 x 6	F-0940G5	F-0940S5
4½ x 6½	F-0942G1	F-0942S1	4½ x 6½	F-0940G1	F-0940S1
6 x 8	F-0942G2	F-0942S2	6 x 8	F-0940G2	F-0940S2
7 x 9	F-0942G3	F-0942S3	7 x 9	F-0940G3	F-0940S3
7½ x 9½	F-0942G4	F-0942S4	7½ x 9½	F-0940G4	F-0940S4

NET PRICES—\$0.75 each; doz. lots @ \$0.73 each; 3 doz. lots @ \$0.70 each.  
Above frames packed 4 to box.

## "Franlen" Amateur Frames

All Metal—Upright or Horizontal

For Pictures 2½ x 4¼—1A Size

These frames are made of light durable metal, well finished and are very neat appearing. All frames come complete with glass and backed ready for framing.

Light Grey	
Upright	F-1001UG
Horizontal	F-1001HG
Ebony Black	
Upright	F-1001UB
Horizontal	F-1001HB

Prices	
Retail, each	\$ 0.25
Net, per doz.	2.00
Net, per gro.	21.00

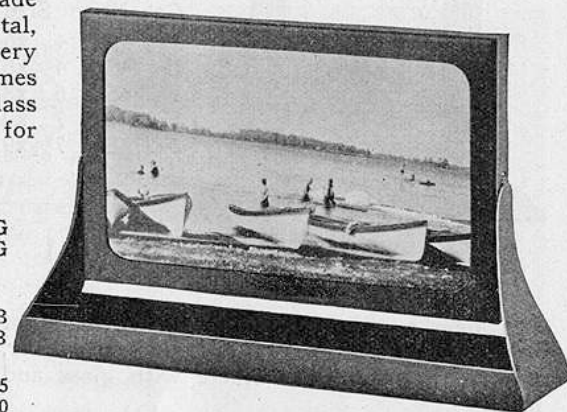


Illustration is of No. F-1001HG.

## "Norwil" Swing Frame



Bright Silver Outline

Dull Silver Body.

Supplied in Silver Only.

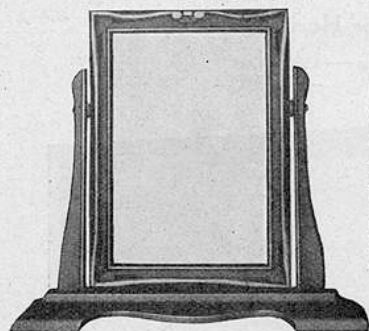
This frame has a rounded base and is very artistic.

Cat. No.	Size	Net Each
F-367S1	4½ x 6½	\$1.95
F-367S2	6 x 8	1.95
F-367S3	6 x 9	1.95
F-367S4	7 x 9	1.95
F-367S5	7½ x 9½	1.95

Order by catalogue number. Packed three to box.



## "Norwil" Quality Frames



### "Norwil" Swing Frames

One of our most popular sellers.  
Finish—Silver only.

Cat. No.	Size	Price
F-374S1	4 x6 .....	\$1.30
F-374S2	4½x6½.....	1.30
F-374S3	6 x8 .....	1.30
F-374S4	7 x9 .....	1.30
F-374S5	7½x9½.....	1.30

(A)

### "Norwil" Metal Easel (or hanging) Frames

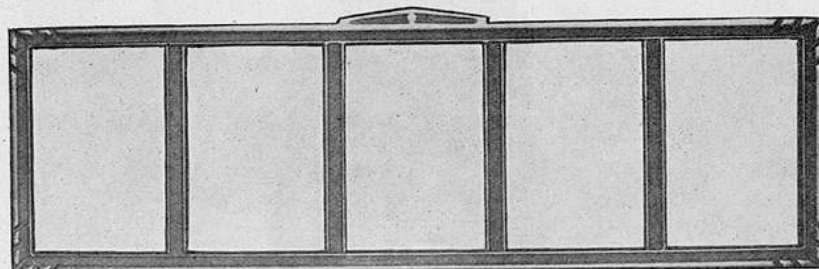
A new creation in frames being made of solid metal, finished in antique dull silver, bronze and copper, complete with glass and back.

Size	Silver	Bronze	Copper	Price
4 x6	F-425S1	F-425B1	F-425C1...	\$0.85
7½x9½	F-425S2	F-425B2	F-425C2...	1.35

(A)



### Combination Wall Frame



2 to 5 Openings  
Finish—Gold and Silver.  
Cat. Nos.

Size	Openings	Gold	Silver	Price
4x6.....	2	F-1679¼G2	F-1679¼S2	\$1.65
4x6.....	3	F-1679¼G3	F-1679¼S3	1.90
4x6.....	4	F-1679¼G4	F-1679¼S4	2.10
4x6.....	5	F-1679¼G5	F-1679¼S5	2.50
5x7.....	2	F-1679¼G12	F-1679¼S12	1.70
5x7.....	3	F-1679¼G13	F-1679¼S13	1.95
5x7.....	4	F-1679¼G14	F-1679¼S14	2.15
5x7.....	5	F-1679¼G15	F-1679¼S15	2.55

## "Norwil" Easel Frames

Carved Wood—Genuine Leaf

(Imported)

A rapid seller for the camera shop, gift shop and studio retail counter.

These are very artistic frames for both amateur and large pictures, imported, made of carved wood, finished in genuine gold and silver leaf, guaranteed not to tarnish. Have a patented easel back for either vertical or horizontal positions as well as hanging. Pictures are readily inserted by removing two swing clips. Each frame fitted with glass.

Gold Cat No.	Silver Cat No.	For picture size	List each	Net per doz.
F-1000G1	F-1000S1	2½x3½	\$0.50	\$3.25
F-1000G2	F-1000S2	2½x4¼	.60	3.50
F-1000G3	F-1000S3	3¼x5½	.75	3.95

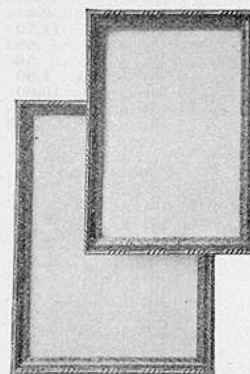
5% discount in gross lots of one size and color only.



## "Norwil" Easel Frames (Portrait)

Carved Wood—Genuine Leaf

Here is a new, unique and exclusive frame, very artistic for professional use. Similar in construction to Norwil Easel frames shown above, but different carved design. This frame is imported, made of carved wood, finished in genuine gold and silver leaf and guaranteed not to tarnish. Has a patented easel back for either vertical or horizontal positions as well as hanging. Pictures are readily inserted by removing two swing clips on the frame back. These frames are fitted and shipped complete with glass.



Gold	Silver	Photo	List Each	Net Per Doz.
F-1002G4	F-1002S4	4x6	\$0.85	\$4.25
F-1002G5	F-1002S5	5x7	.95	4.75
F-1002G6	F-1002S6	6x8	1.25	6.25
F-1002G7	F-1002S7	7x9	1.50	7.25

5% discount in gross lots of one size and color only.



## Guaranteed Chemicals



### Buy the Best—It's Economy

The chemicals given below are Standard Mallinckrodt, Rhodia, Ansco or Imported under original packing.

These prices vary with the market and are quoted with the lowest possible margin at the time price list is published.

The prices quoted include the container, unless otherwise specified. F. O. B. Chicago, U. S. A. In larger quantities than shown, special quotations will be given upon request.

ACIDS	ARTICLE	Kind of Container	Quantity	Net
Acetone, Pure, M. C. W.	C. S. Bot.	lb.		\$ 0.65
Acetic, 28%, No. 28	C. S. Bot.	lb.		.35
Acetic, 28%, No. 28	C. S. Bot.	5 lb.		1.00
Acetic, 28%, No. 28	Demijohn	5 gal.		3.25
Acetic, 28%, No. 28	Carboy	13 gal.		5.75
Acetic, 28%, No. 28 (Approx. 415 lbs.)	Barrel	lb.		.045
Acetic, 56%	Demijohn	5 gal.		6.00
Acetic, 56%	Carboy	13 gal.		11.70
Acetic, 56% (Approx. 415 lbs.)	Barrel	lb.		.083
Acetic, 99%, Glacial	C. S. Bot.	lb.		.50
Acetic, 99%, Glacial	C. S. Bot.	5 lb.		1.60
Acetic, 99%, Glacial	Demijohn	5 gal.		10.00
Acetic, 99%, Glacial	Carboy	13 gal.		19.70
Acetic, 99%, Glacial (Approx. 415 lbs.)	Barrel	lb.		.153
Demijohns (\$2.50), carboys (\$5.00), and barrels (\$5.00), are billed additional, full credit being given after being returned to us fully prepaid by customer.				
Citric (Pure) Crystals, M. C. W.	C. S. Bot.	1 lb.		.95
Citric (Pure) Crystals, M. C. W.	C. S. Bot.	5 lb.		3.40
Muriatic C. P. or Hydrochloric	C. S. Bot.	lb.		.75
Nitric C. P., M. C. W.	G. S. Bot.	lb.		.82
Oxalic, M. C. W.	G. S. Bot.	lb.		.43
Phosphoric U. S. P., M. C. W.	G. S. Bot.	lb.		.52
Pyrogallie Crystals, M. C. W.	G. S. Bot.	oz.		.25
Pyrogallie Crystals, M. C. W.	G. S. Bot.	1/2 lb.		.95
Pyrogallie Crystals, M. C. W.	G. S. Bot.	lb.		1.85
Pyrogallie Crystals, M. C. W.	Can	5 lb.		8.45
Pyrogallie Crystals, M. C. W.	Can	10 lb.		16.00
Pyrogallie Crystals, M. C. W.	Can	25 lb.		39.00
Pyrogallie Resublimed, M. C. W.	Can	oz.		.21
Pyrogallie Resublimed, M. C. W.	Can	1 lb.		2.45
Sulphuric C. P., M. C. W.	G. S. Bot.	lb.		.55
Sulphuric C. P., M. C. W.	G. S. Bot.	9 lb.		2.85

## GUARANTEED CHEMICALS—Continued

ARTICLE	Kind of Container	Quantity	Net
<b>ALUM</b>			
Chrome, Granulated, Photo, M. C. W.	Can	lb.	\$ 0.35
Chrome, Granulated, Photo, M. C. W.	Box	5 lb.	1.30
Chrome, Granulated, Photo, M. C. W.	Box	25 lb.	4.45
Chrome, Granulated, Photo, M. C. W.	Keg	100 lb.	15.50
Potassium (Pure) Photographic, M. C. W.	Carton	lb.	.25
Potassium (Pure), M. C. W.	Carton	5 lb.	1.00
Potassium (Pure), M. C. W.	Carton	25 lb.	3.95
Potassium (Pure), M. C. W.	Keg	100 lb.	12.25
Potassium (Pure), M. C. W.	Barrel	350 lb.	42.70
Potassium powdered, M. C. W.	Keg	100 lb.	9.90
<b>AMMONIUM</b>			
Bichromate, M. C. W. C. P.	C. S. Bot.	oz.	.17
Bichromate, M. C. W. C. P.	C. S. Bot.	lb.	1.10
Bromide, M. C. W.	C. S. Bot.	oz.	.20
Bromide, M. C. W.	C. S. Bot.	lb.	.95
Carbonate, M. C. W.	C. S. Bot.	oz.	.12
Carbonate, M. C. W.	C. S. Bot.	lb.	.35
Persulphate, M. C. W.	C. S. Bot.	oz.	.12
Persulphate, M. C. W.	C. S. Bot.	lb.	1.00
Sulpho-Cyanate, M. C. W.	C. S. Bot.	oz.	.17
Sulpho-Cyanate, M. C. W.	C. S. Bot.	1/4 lb.	.45
Sulpho-Cyanate, M. C. W.	C. S. Bot.	lb.	1.50
<b>BARIUM</b>			
Sulphate, M. C. W.	C. S. Bot.	lb.	.40
Sulphate, M. C. W.	C. S. Bot.	5 lb.	1.60
Sulphate, M. C. W.	C. S. Bot.	25 lb.	7.00
<b>COPPER</b>			
Chloride, Pure (Cup. Chl.), M. C. W.	C. S. Bot.	oz.	.20
Chloride, Pure (Cup. Chl.), M. C. W.	C. S. Bot.	lb.	.80
<b>GOLD CHLORIDE</b>			
M. C. W.	Vial	15 gr.	.80
M. C. W.	Vial	oz.	10.50
<b>GLYCERINE, PHOTOGRAPHIC</b>			
"	"	1 lb.	.45
"	"	5 lb.	2.25
"	"	10 lb.	4.50
"	"	25 lb.	10.75
"	"	50 lb.	20.50
<b>HYDROCHINON, M. C. W. or RHODIA</b>			
"	Carton	oz.	.25
"	Carton	1/4 lb.	.65
"	Carton	1/2 lb.	1.05
"	Carton	lb.	1.85
"	Can	5 lb.	8.65
"	Can	25 lb.	42.00
<b>LEAD</b>			
Acetate, Granular C. P.	Carton	lb.	.40
Nitrate	Carton	lb.	.48
<b>MERCURY (Corrosive Sublimate)</b>			
Bichloride	C. S. Bot.	oz.	.25
Bichloride	C. S. Bot.	1/2 lb.	1.00
Bichloride	C. S. Bot.	lb.	1.85
<b>METOL AND DEVELOPERS (See next page)</b>			
<b>POTASSIUM</b>			
Bichromate C. P.	C. S. Bot.	lb.	1.00
Bromide Crystals (Pure)	C. S. Bot.	oz.	.25
Bromide Crystals (Pure)	C. S. Bot.	1/4 lb.	.35
Bromide Crystals (Pure)	C. S. Bot.	1/2 lb.	.50
Bromide Crystals (Pure)	C. S. Bot.	lb.	.75
Bromide Crystals (Pure)	C. S. Bot.	5 lb.	3.40
Carbonate	C. S. Bot.	1/2 lb.	.20
Carbonate	C. S. Bot.	lb.	.35
Carbonate	C. S. Bot.	5 lb.	1.15
Carbonate	C. S. Bot.	25 lb.	4.00
Ferricyanide, Red Prussiate, Crystals	C. S. Bot.	oz.	.40
Ferricyanide, Red Prussiate, Crystals	Carton	lb.	.95
Ferricyanide, Red Prussiate, Crystals	Carton	5 lb.	3.30
Iodide	C. S. Bot.	oz.	.50
Iodide	C. S. Bot.	lb.	4.00
Metabisulphite	C. S. Bot.	oz.	.18
Metabisulphite	C. S. Bot.	lb.	.58
Metabisulphite	C. S. Bot.	5 lb.	1.95
Metabisulphite	C. S. Bot.	25 lb.	9.20
Permanganate	C. S. Bot.	oz.	.17
Permanganate	C. S. Bot.	lb.	.50
Sulphocyanate	C. S. Bot.	1 oz.	.25
Sulphocyanate	C. S. Bot.	1/4 lb.	.85
<b>SILVER NITRATE</b>			
Crystals (pure)	C. S. Bot.	oz.	.70
Crystals (pure)	C. S. Bot.	lb.	9.60
(Ask for current quotations)			



**GUARANTEED CHEMICALS—Continued**

ARTICLE	Kind of Container	Quantity	Net
<b>SODIUM</b>			
Acetate	C. S. Bot.	oz.	\$ 0.17
Acetate	C. S. Bot.	lb.	.70
Bicarbonate	C. S. Bot.	lb.	.18
Bisulphite C. P.	C. S. Bot.	oz.	.16
Bisulphite C. P.	C. S. Bot.	lb.	.36
Bisulphite C. P.	C. S. Bot.	5 lb.	1.20
Bisulphite C. P.	Box	25 lb.	4.70
Bisulphite C. P.	Box	100 lb.	16.50
Carbonate, Photographic Monohydrated.	Can	5 lb.	.24
Carbonate, Photographic Monohydrated.	Can	5 lb.	.30
Carbonate, Photographic Monohydrated.	Tin	25 lb.	3.00
Carbonate, Photographic Monohydrated.	Keg	100 lb.	9.55
Carbonate, Photographic Monohydrated.			
(approx.) 275 lbs.	Barrels	lb.	Per lb. .08
Hyposulphite, Pea Crystals	Package	5 lb.	.50
Hyposulphite, Pea Crystals	Keg	100 lb.	4.25
Hyposulphite, Pea Crystals, Five or more	Keg	100 lb.	3.95
Hyposulphite, Pea Crystals, Barrel		350 lb.	12.45
Hyposulphite, 1 Bag			4.00
Hyposulphite, 5 Bags			3.65
Hyposulphite, 25 Bags			3.40
Sulphite, Photographic, M. C. W.	Can	5 lb.	.25
Sulphite, Photographic, M. C. W.	Can	5 lb.	1.10
Sulphite, Norwil Tested	Can	5 lb.	.95
Sulphite, Norwil Tested	Can	10 lb.	1.85
Sulphite, Photographic, M. C. W.	Tin	25 lb.	4.75
Sulphite, Photographic, Norwil Tested	Tin	25 lb.	3.60
Sulphite, Photographic, M. C. W.	Keg	100 lb.	13.50
Sulphite, Photographic, Norwil Tested	Keg	100 lb.	12.35
Sulphite, Photographic (approx.)	Barrels	215-315 lb.	Per lb. .125
Sulphite, Photographic, Crystals		1 lb.	.62

**METOL AND DEVELOPERS**

Four Popular Developing Agents



Hauff's



"Pictol" M.C.W.



AGFA



"Rhodia" Metol

**METOL AGENTS**

	5 lb.	16 oz.	8 oz.	4 oz.	1 oz.
"Rhodia" Metol	\$22.50	\$5.00	\$2.95	\$1.70	\$0.55
"Hauff's" Metol	29.75	6.50	3.75	2.00	.55
"Agfa" Metol	29.75	6.50	3.75	2.00	.55
"Pictol" M. C. W.	25.00	5.50	3.00	1.80	.55

**OTHER DEVELOPING AGENTS**

	5 lb.	16 oz.	8 oz.	4 oz.	1 oz.
Amidol	29.75	7.00	3.75	2.00	.55
Ortol	29.75	7.00	3.75	2.00	.55
Eikonogen	29.75	7.00	3.75	2.00	.55
Rodinal	9.00	2.00	1.10	.60	3 oz. .55
Glycin	29.75	7.00	3.75	2.00	.55

**DEVELOPERS—TUBES—Anso**

	List	Discount
M. Q. per box 6 tubes	\$0.25	33 1/3 %
M. Q. per box 100 tubes	7.00	40 %

Note: Above prices subject to change without notice. Special Quotations furnished on larger quantities or Unstable Articles.

All quotations Net F. O. B. Chicago freight depots; City, store door delivery.

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