Photographic

INSTRUMENTS AND EQUIPMENT
CARTOGRAPHIC APPARATUS
GRAPHIC ARTS CAMERAS

J. G. SALTZMAN, Inc. SALES DISTRIBUTORS for CAESAR MFG., Inc.

CPS

FOREWORD

We have published this catalogue to bring to your attention the many new models that we have designed, in order to keep up with the latest technical developments, and to satisfy the demands of the vastly extended Photographic and Cartographic-Photogrammetric field.

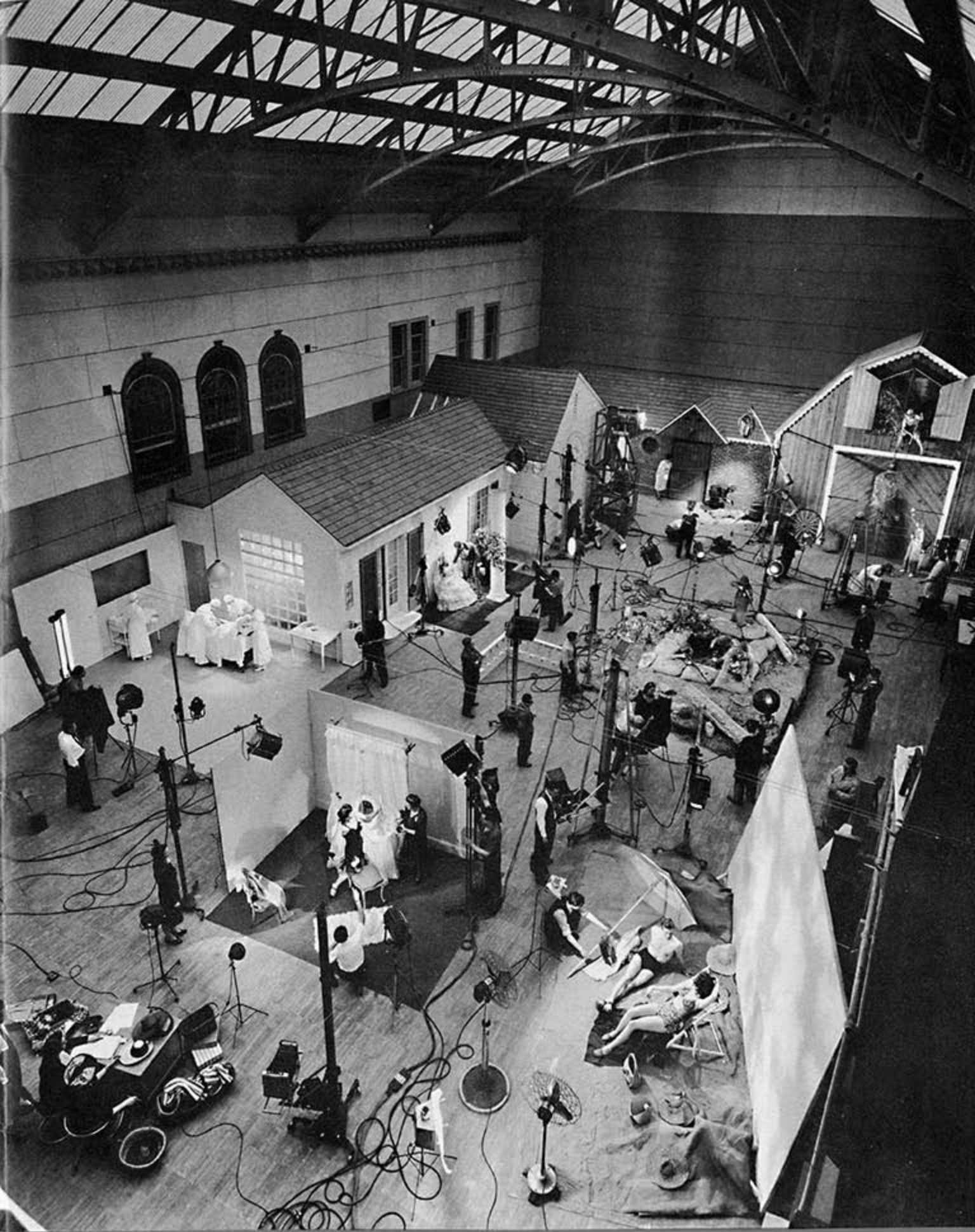
Our standard line of instruments comply with the normal requirements of the trade. We are, however, equipped to solve whatever problems you may have, and either adapt our machines to your needs, or develop entirely new types. The highest quality in workmanship and material combined with thorough knowledge of the Photographic and Photogrammetric requirements, have enabled us to produce machines of the very highest efficiency, the best grade, and the greatest durability.

Do not hesitate to call on us if you need information and assistance in the Photographic and Photogrammetric field.

J. G. SALTZMAN, Inc.

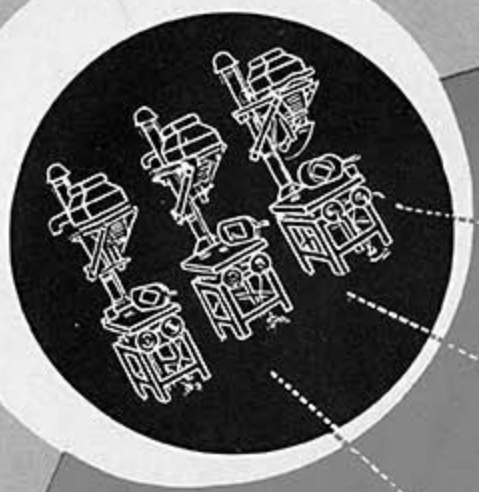
SALES DISTRIBUTORS FOR CAESAR MFG., Inc.

480 LEXINGTON AVENUE NEW YORK 17, N. Y



PAGANO STUDIOS — New York City

Photographic and Lighting Equipment furnished by J. G. Saltzman, Inc. — Caesar Mfg., Inc.



STANDARD ENLARGERS

30 WB Enlarger *(Fig. 1)*
For negatives up to and including negatives of 4″ x 5″

30 W Enlarger *(Fig. 2)*
For negatives up to and including negatives of 5″ x 7″

30 WA Enlarger *(Fig. 3)*
For negatives up to and including negatives of 8″ x 10″

30 WR Enlarger *(not illustrated)*
For negatives up to and including negatives of 5″ x 7″

The three types of machines shown on the opposite page are all built alike basically, and vary only in the size of the negative that can be accommodated, the weight of the machines, and the space required.

Fig. 1

Fig. 2

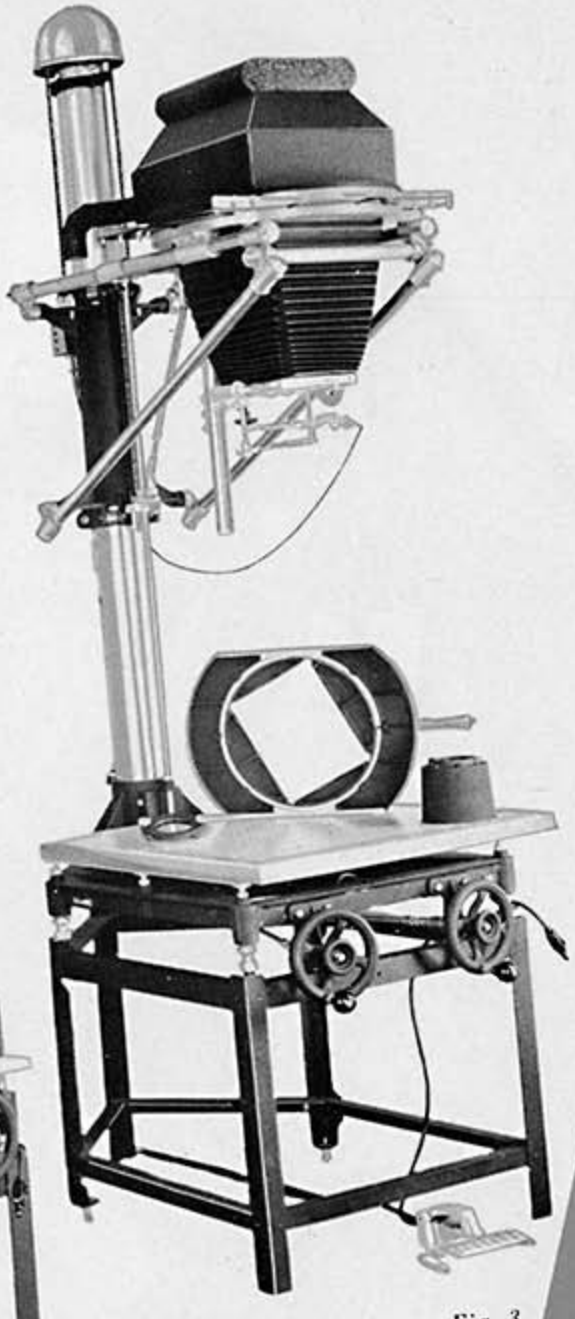


Fig. 3

DESCRIPTION OF MACHINES

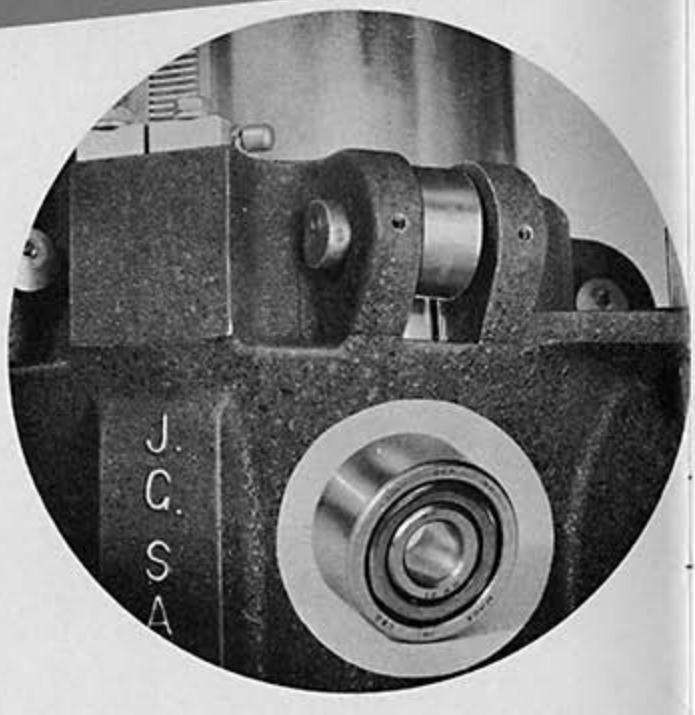


Fig. 6

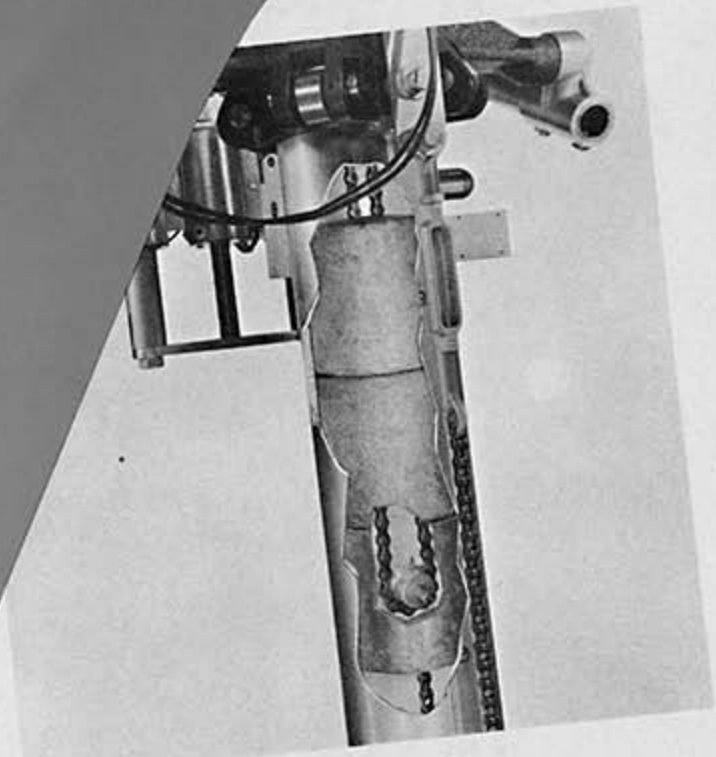


Fig. 5

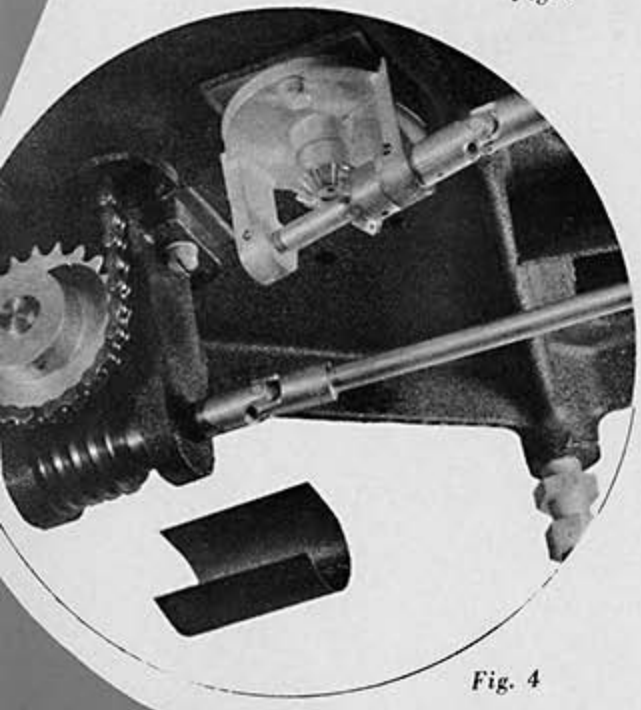


Fig. 4

The whole unit is built up on a rigid cast iron base. This base rests on a sub base which brings the base board of the machine to a convenient working height. The camera itself is moved up and down on a steel post on eight roller bearings. The unit is completely counter-balanced by weights concealed inside the post *(Fig. 5)*. The model **30WB** and **30W**, have a simple sprocket arrangement to take care of the up and down motion of the camera by means of a handwheel located in front of and under the base board of the machine. The model **30WA** and all larger units are equipped with worm gear box *(Fig. 4)* to provide smoother motion and more accurate adjustment.

Fig. 7

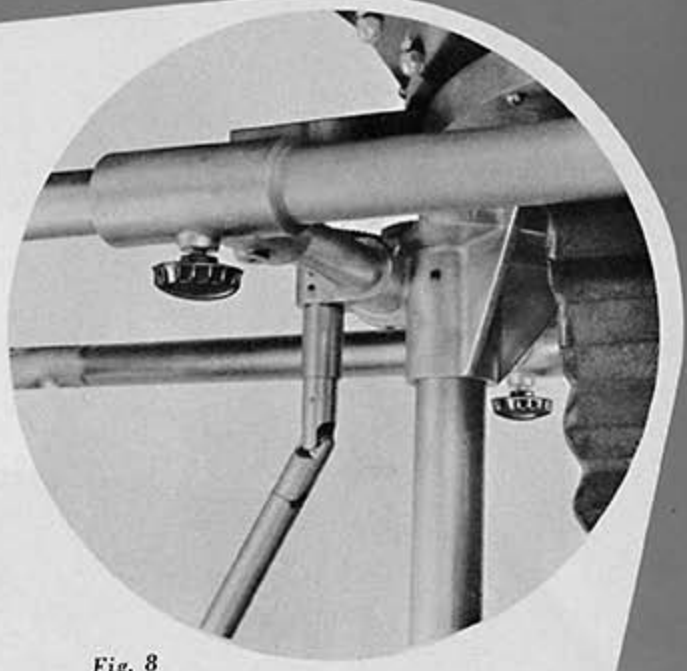


Fig. 8

The sub base rests on five legs, two of which are adjustable to compensate for unevenness in the floor. The cast iron base itself has all supports adjustable, and permits leveling of the machine, even under the most unfavorable conditions *(Fig. 7)*.

The camera rests on a chromium plated steel tube frame *(Fig. 9)* and can be moved in a horizontal plane parallel to the projection board, in order to accommodate projections of varying sizes. Two lock knobs *(Fig. 8)* will hold the camera in whatever position is desired.

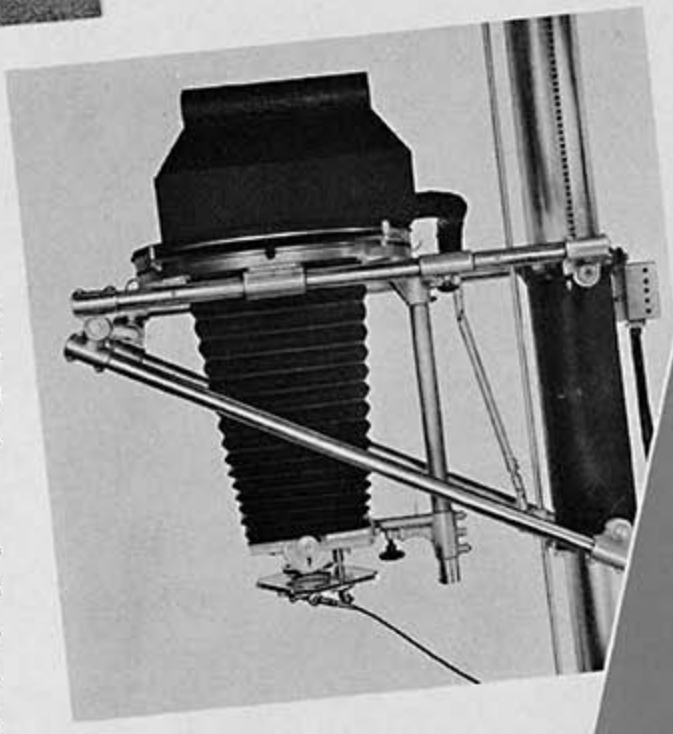


Fig. 9

The lens motion is operated by a handwheel *(Fig. 10)* in front and below the base board, and rigid connections provide an accurate setting of the lens in relation to the negative with a minimum of effort. The handwheels which actuate both lens and camera motion may be securely locked by a convenient lock knob.

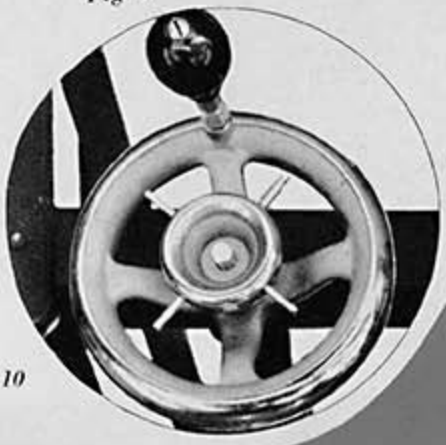


Fig. 10

DESCRIPTION OF MACHINES

Fig. 13

Fig. 12

Fig. 11

The lens is mounted in a removable metal lens board which rests in a movable lens board holder. This lens board holder has a large degree of both tilt and side swing. A protractor makes it possible to record the tilt of the lens board, and thereby to achieve the same results or use the same technique at some later date *(Fig. 13)*.

The lens board is equipped with an Iris Diaphragm Lens Holder which permits the use of various sizes of lenses with the same lens board *(Fig. 13)*.

With each of these units we can supply a special Lens Cone *(Fig. 12)* with which the bellows extension may be increased for making reductions, or if the cone is inverted *(Fig. 11)* and inserted into the bellows above the lens board, very short focal length lenses may be used. This cone likewise has an Iris Diaphragm Lens Holder.

All machines are equipped with a Safe Filter *(Fig. 13)* which permits masking and rotation of the negative and setting of the paper without danger of exposure. The Safe Filter is 3″ in diameter, and can be easily swung aside for making the exposure.

Fig. 14

Fig. 15

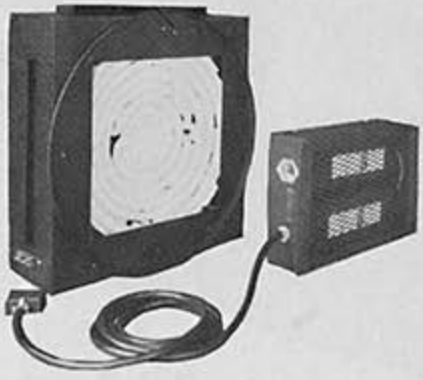
The models **30WB, 30WR** and **30WA** are equipped with a Rotary Negative Holder *(Fig. 14)* which permits rotation of the negative up to approximately 200°. The model **30W** has a Square Negative Holder accomodating negatives 7″ x 7″.

All models have built-in adjustable masks *(Fig. 15)* which permit masking or cropping of any portion of the negative.

All units can be equipped with an all metal Lamp House of the Mercury Vapor type *(Fig. 16)*. This light source is one of the most efficient for all around work. It is five times faster than a 1000 Watt Mazda Lamp and as cool as a 300 Watt Lamp. In fact, it is so cool that a negative could be under the light a considerable length of time without any injuries resulting. A transformer is supplied as part of the above mentioned unit.

Fig. 16

The models **30WA, 30WR** and **30W** may be furnished with a Cold Cathode Fluorescent Lamp House *(Fig. 17)*. This type of light source is as fast as a 1500 Watt Mazda, but consumes only 350 Watts. The temperature of the negative never rises above 87°.



Cold Cathode Varilight Light Source Blower (not shown).

Fig. 17

Fig. 20

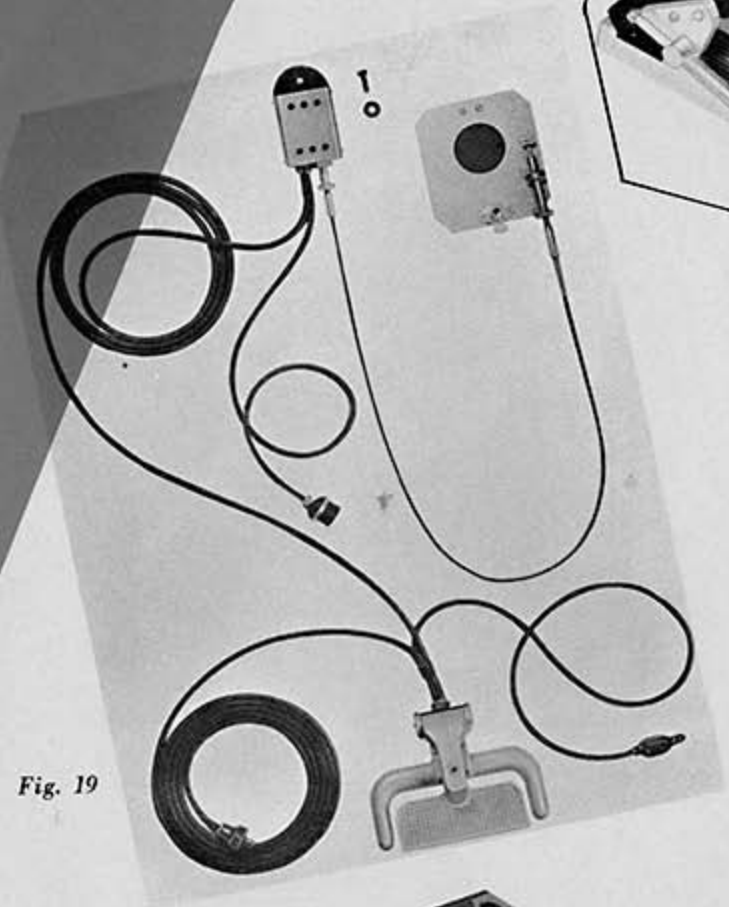


Fig. 19

All machines can be equipped with an Electric Shutter *(Fig. 19)* which is operated by a foot switch, leaving both hands of the operator free to operate the controls of the machine, dodge the picture, etc.

Supplementing this standard equipment, we have developed a number of accessories which have proved very helpful.

The glassless Negative Holder *(Fig. 18)* is specially designed to hold negatives of all sizes from 35 mm up to and including 5″ x7″. It is available for all 5 x 7 and 8 x 10 machines. The negative is gripped on two edges and drawn flat by a series of clips. There is no buckling and no distortion. The negative is held absolutely parallel to the projection board. It takes only the shortest time to adjust the holder from one size of negative to another.

Our 20″ x 24″ Paper Holder *(Fig. 20)* will prove very helpful in holding and exchanging photographic paper. This easel is capable of masking and holding photographic paper from sizes 2 x 2 to 20 x 24. It consists of a board upon which is hinged an "L" shaped frame. This frame may be kept open or closed by a special adjustable spring hinge. Calibrated scales are fastened to the frame. Beneath the frame on the board, grooves have been cut into the board from ¼″ to 2″ from the margin edge of the frame. Movable margin guides fit into these grooves enabling changes in margin widths in increments of ¼″.

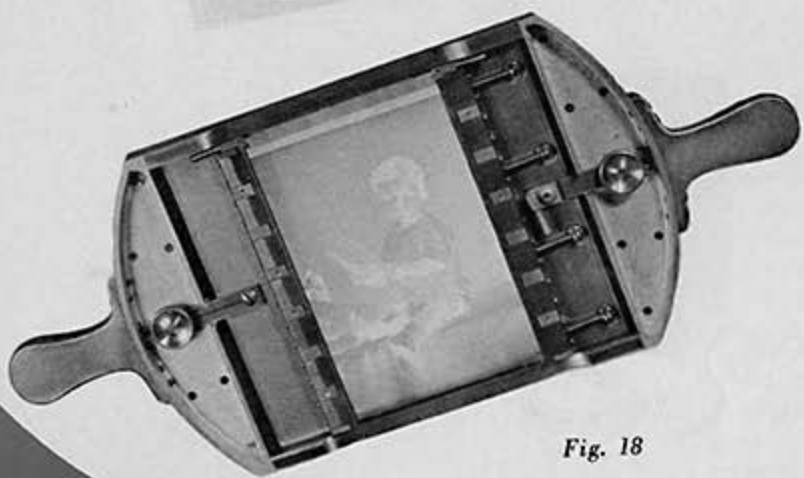


Fig. 18

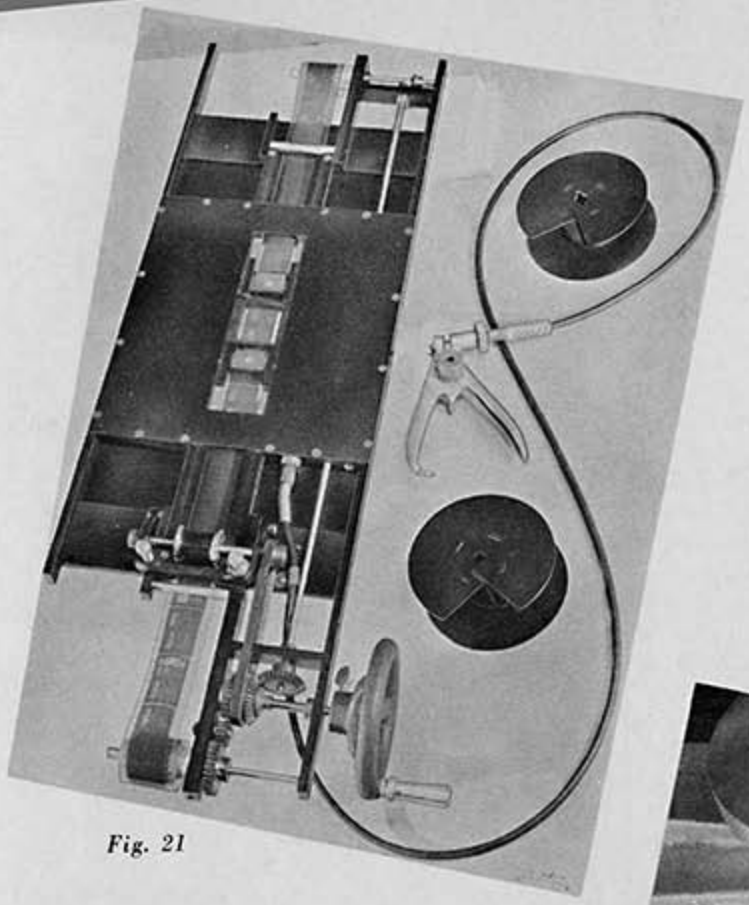


Fig. 21

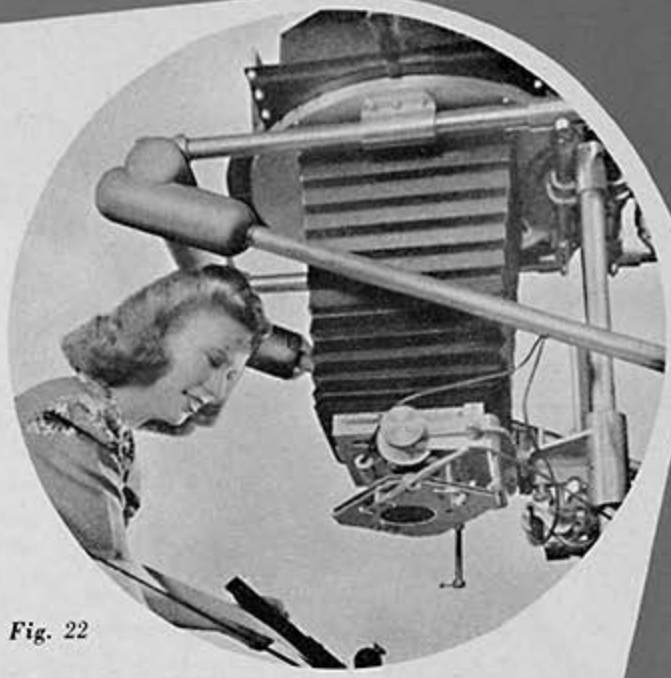


Fig. 22

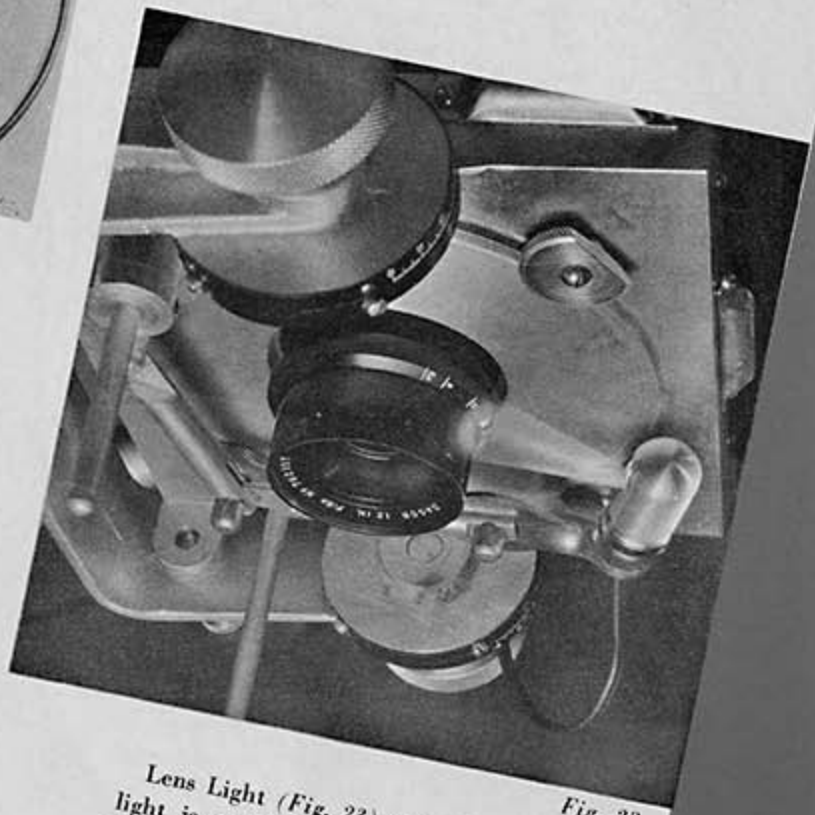


Fig. 23

Special 35 mm Film Transports *(Fig. 21)* are available for 5 x 7 and 8 x 10 machines. This type will handle a single negative of either perforated or non-perforated film. The equipment provides four removable felt film cleaners, a bronze leader, a squeeze handle for opening pressure plates (or book) when apparatus is in the camera, and a handwheel for moving the film. A special clutch makes it possible to move film in either direction with the single handwheel.

Rubber Bumpers *(Fig. 22)* are furnished with the **30WA**. This soft sponge rubber covering over the front corners and cross tubing of the camera unit protects the operator from injury while working in the lower ranges of enlargement or reduction under subdued darkroom light, and adds much to the comfort of the person operating enlarger.

Lens Light *(Fig. 23)* a small glow light is available to illuminate the lens when setting the aperture, and has often proved very helpful in speeding up the work.

CUSTOM BUILT MODELS

30 WT Enlarger (Fig. 25)
30 WRT Enlarger

This 5 x 7 Enlarger with the elevator base board was especially designed for those who have limited space or a low darkroom ceiling, yet desire an enlarger that is efficient, versatile, and capable of the finest work. While incorporating all the fine features found in the other models, it has the added advantage of smart compactness. The Table Model has a projection board that can be raised or lowered, thus permitting the enlarger to be operated at its maximum under a 7½ foot ceiling. The projection board is raised or lowered by a hand crank and is locked in place as shown in the accompanying illustration (Fig. 24). The base of the Table Model is equipped with adjustable feet and spirit levels so that it can be solidly placed and easily leveled on an uneven floor. Focusing is by remote control exactly as in all machines. The same equipment is supplied for the standard models.

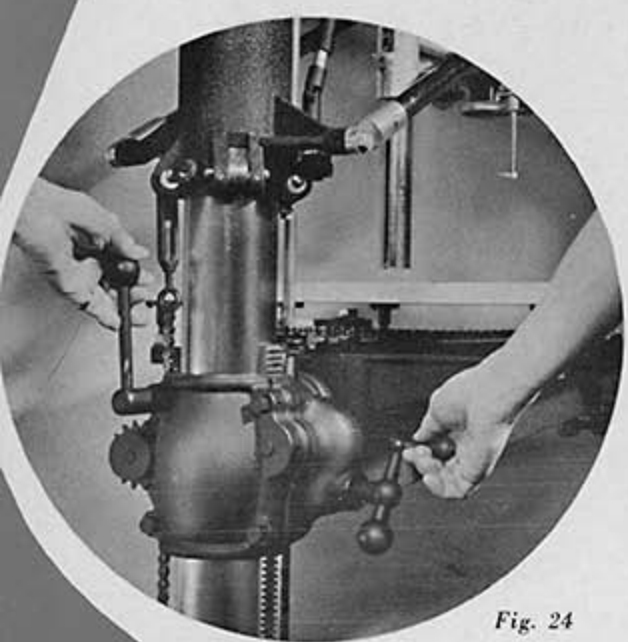


Fig. 24

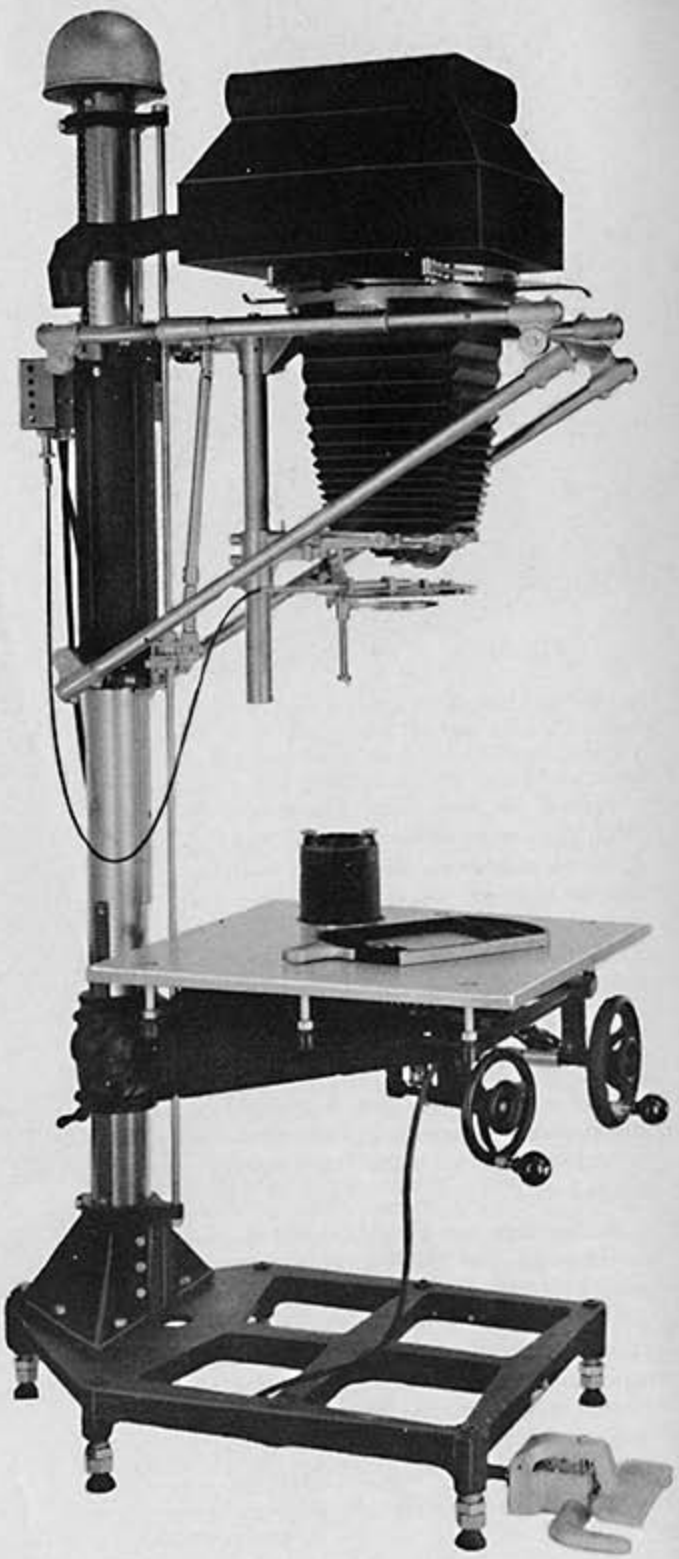


Fig. 25

30 WAB Enlarger (Fig. 26)

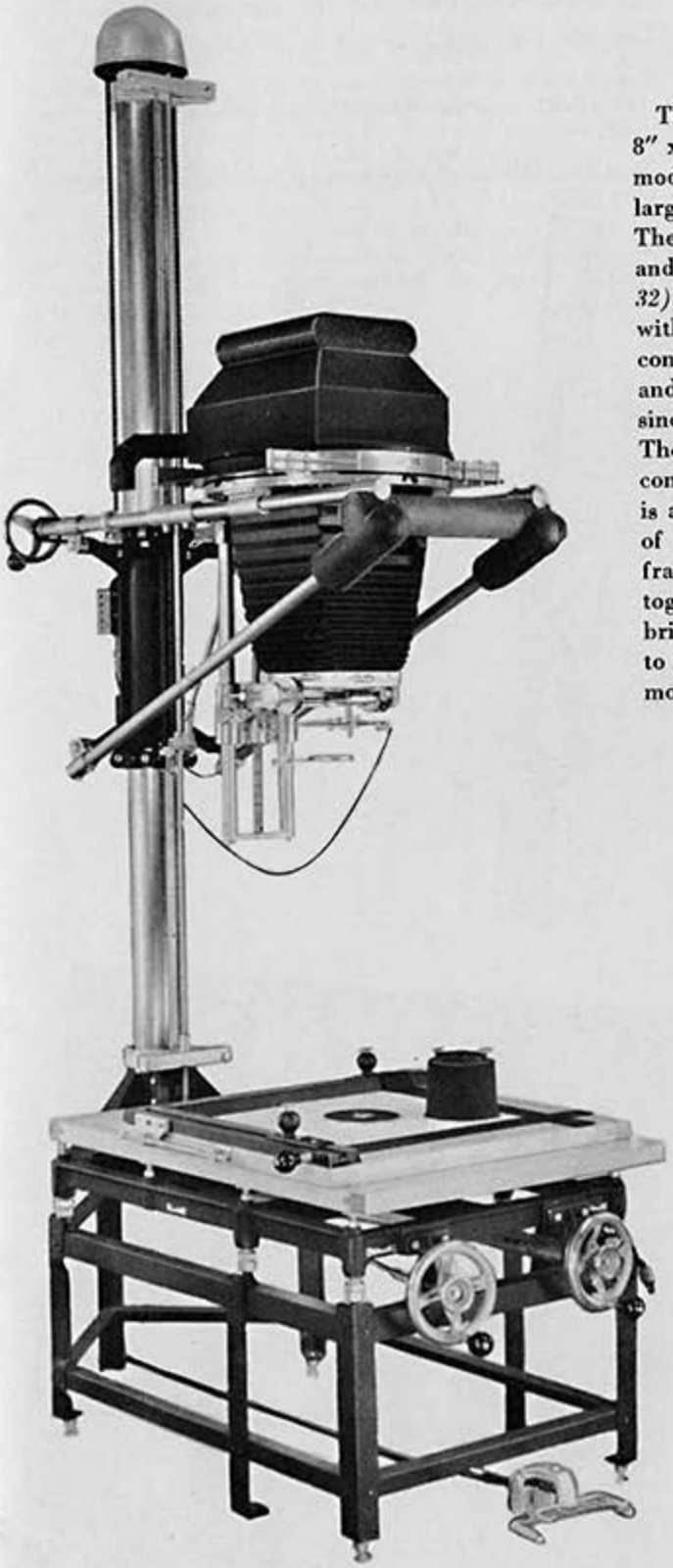


Fig. 26

This machine takes care of negatives up to and including 8″ x 10″. This unit is built along the same lines as the standard models shown on page 5. The difference is that the machine is larger, heavier, and built for greater accuracy in performance. The base board is considerably longer. The camera moves up and down the 4½″ steel post on eight ball bearing rollers *(Fig. 32)*. The lens board is supported by two vertical guide tubes with a spindle in the center, instead of the single tube with the concealed spindle, which is used on the standard models. Tip and tilt of the lens board can be set with much greater accuracy since both have dials with verniers to read to accurate position. The snap locks used are much more elaborate and sturdier in construction, see *(Fig. 27)*. The horizontal motion of the camera is accomplished by means of a handwheel mounted on the end of either one of two spindles concealed within the horizontal frame tube *(Fig. 30)*. The two spindle sprockets are connected together by a chain which permits them to move simultaneously bringing the camera forward or backward in a parallel plane to the easel board. By this construction the camera is held motionless at whatever point it is stopped.

STANDARD EQUIPMENT MODEL 30WAB.

Rubber Bumpers *(Fig. 22)*
Rotary Negative Holder *(Fig. 14)*

20x24 Paper Holder *(Fig. 20)*
Cone with iris *(Fig. 11)*
Lensboard with iris *(Fig. 13)*
Safe Filter *(Fig.13)*
Pilot light for lense *(Fig. 23)*

Either Mercury Vapor or Fluorescent Light Source.

If a lense is purchased with the machine, we furnish a lensboard machined to suit the lens. The lens is thereby fitted to the machine in such a manner, that the axis of tip and tilt pass thru the proper node of the lens. Thus the center of the image projected on paper remains fixed no matter what angle the lens is set at.

DESCRIPTION OF MODEL

The following accessories are also available:

Cone 13″ long with lens ring or iris *(Fig. 55)*.

Paper holder for paper sizes 19″x19″ to 40″x40″ inclusive with counterbalanced paper holding frame *(Fig. 29)*.

Negative Holder for negatives up to 10¼″x10¼″ square *(Fig. 28)*.

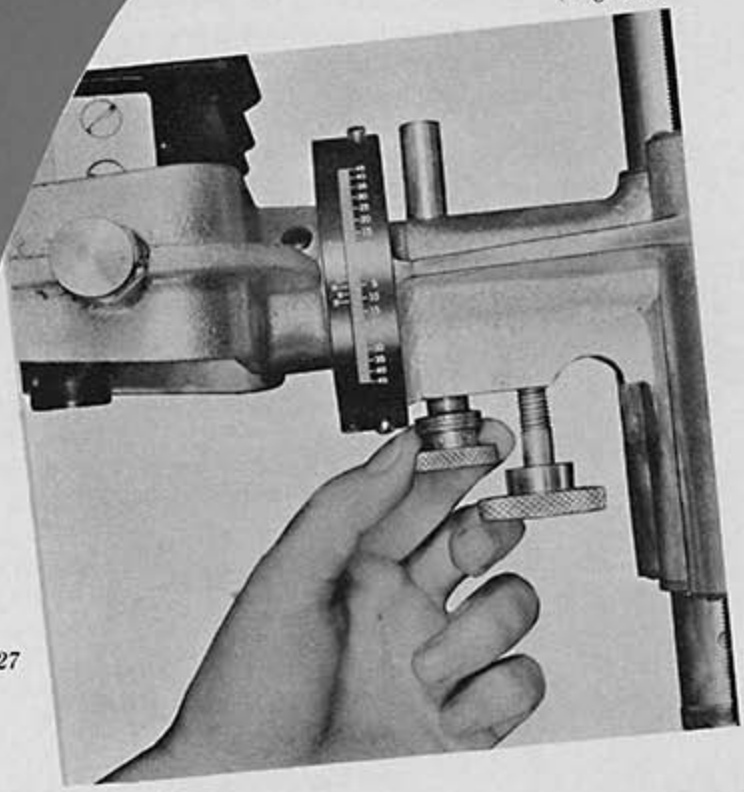


Fig. 27

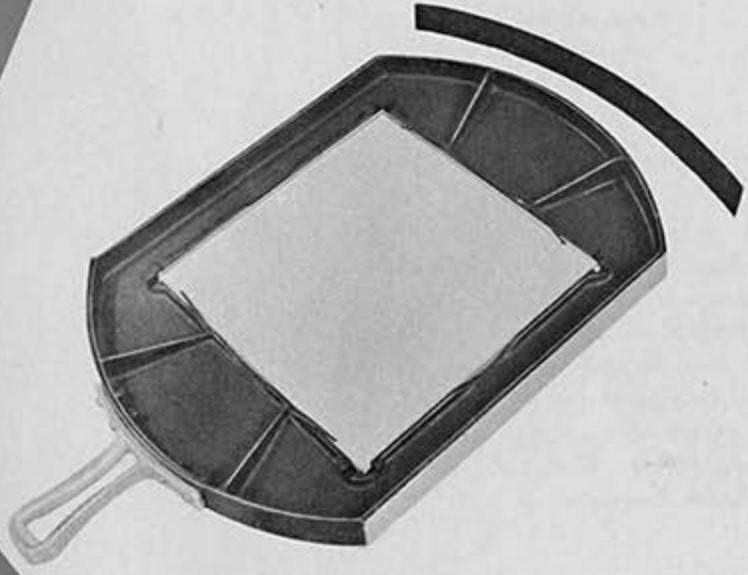


Fig.. 28

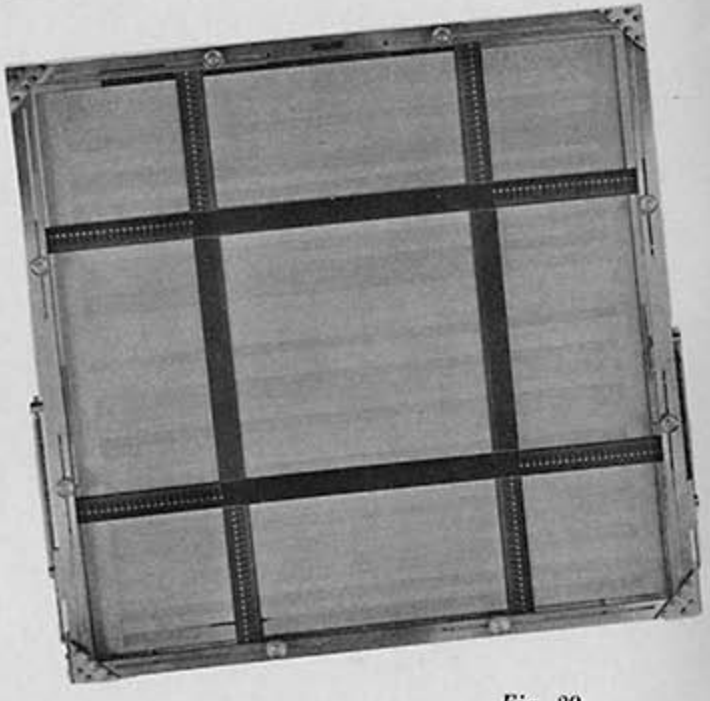


Fig. 29

This same **30 WAB** machine may be obtained with a motorized horizontal motion. In this case the machine carries the designation **30 WABM** *(Fig. 31)*. This motorization of the horizontal motion may prove extremely helpful for anyone making enlargements of a size which requires the camera in a very high location where the normal hand wheel cannot be reached without considerable trouble. The projected image may be centered on the easel board by simply turning a reversible switch that is conveniently located on the side of the base. The switch controls an electric motor on the rear of one of the two horizontal frame tubes. The motor can be stopped instantly for exact position. The motor gearing may be disconnected at will.

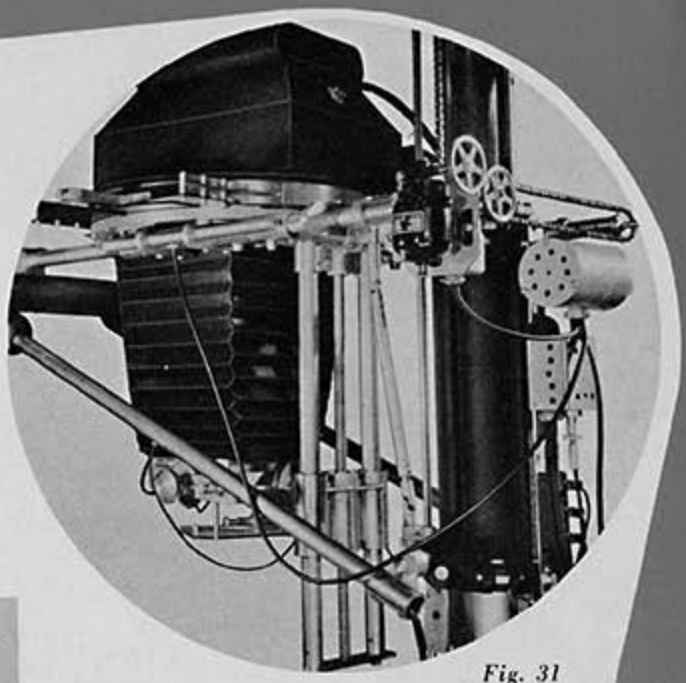


Fig. 31

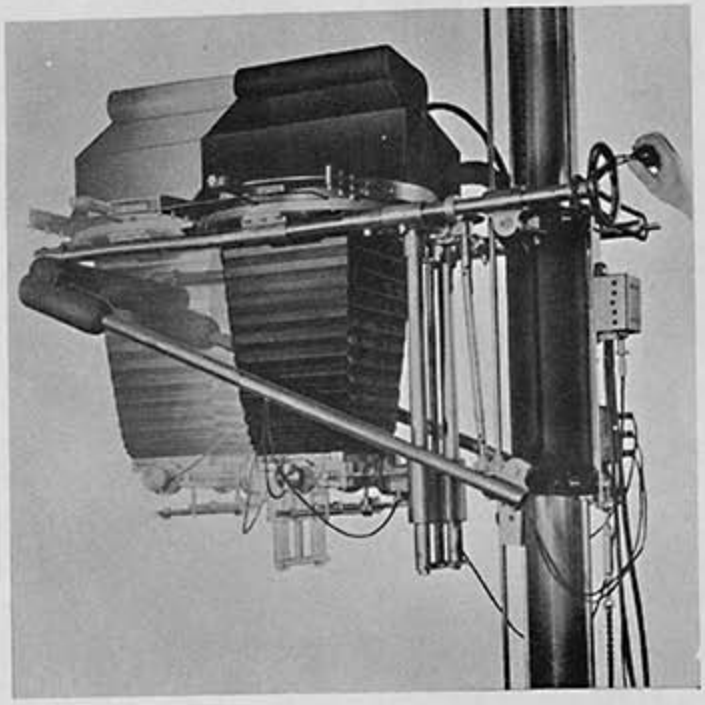
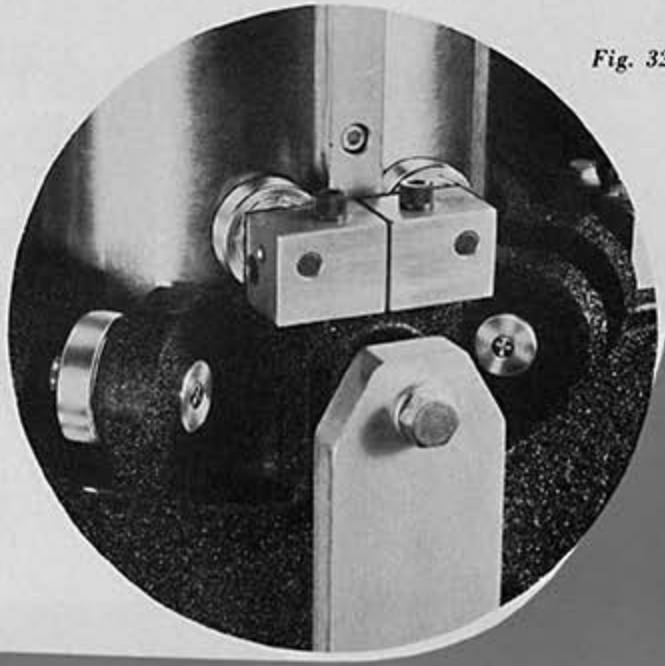


Fig. 30

Fig. 32



30 WABC Enlarger *(Fig. 33)*

This machine is essentially the same as the 30 WAB. However, it is equipped with two counters *(Fig. 34)* which are mounted on the camera unit. Both are mounted in such a way that the slightest motion of either lens or negative is registered. The counters read to 1/100 part of one inch. One counter shows the distance from paper to negative. The other counter shows the distance from lens to negative. These counters may be used to accurately record the position of the camera and the lens at the time the picture was made, and thus enable the photographer to exactly duplicate his picture at any later time.

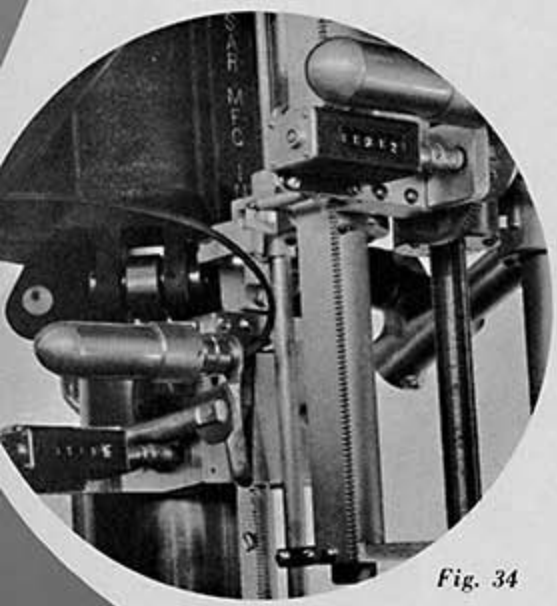


Fig. 34

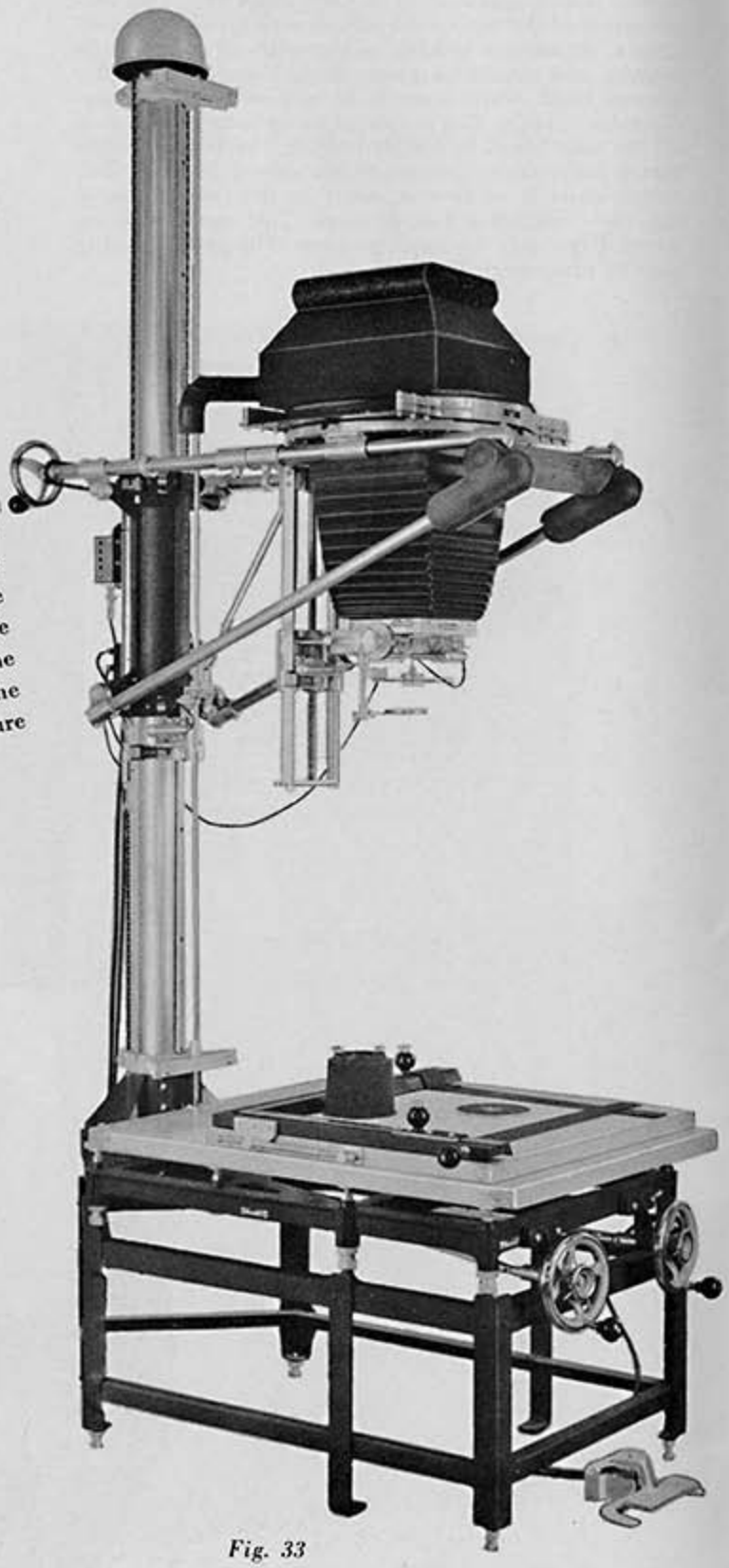


Fig. 33

The counters, however, may also be used in conjunction with a calibration chart which will enable the photographer to accurately make changes in projection size of 5/1000 of the diameter. The enlarger is in focus at the sharpest point of the lens at all calibrated points. This machine is accurate enough to be used for photogrammetric work, and a restitutional table is available which makes it possible to make minor rectifications. *(Fig. 35)*. In conjunction with the tip and tilt of the lens *(Fig. 36)*, this table makes possible minor rectifications up to approximately 5° of tip and tilt in photographs. This machine may be purchased with motorized horizontal motion *(Fig. 32)*. In that case the model is known as **30 WABCM.** Unnecessary to say, all the machines are carefully counter-balanced. Focusing of the camera is effected by two substantial handwheels which operate lens and camera thru gearing. Both handwheels can be locked in whatever position is required by two lock wheels. *(Fig. 37)* located in front of the handwheels. The machines are well protected by plating and painting against corrosion and fumes normally in the dark room, and all aluminum parts are coated with a clear lacquer.

Fig. 36

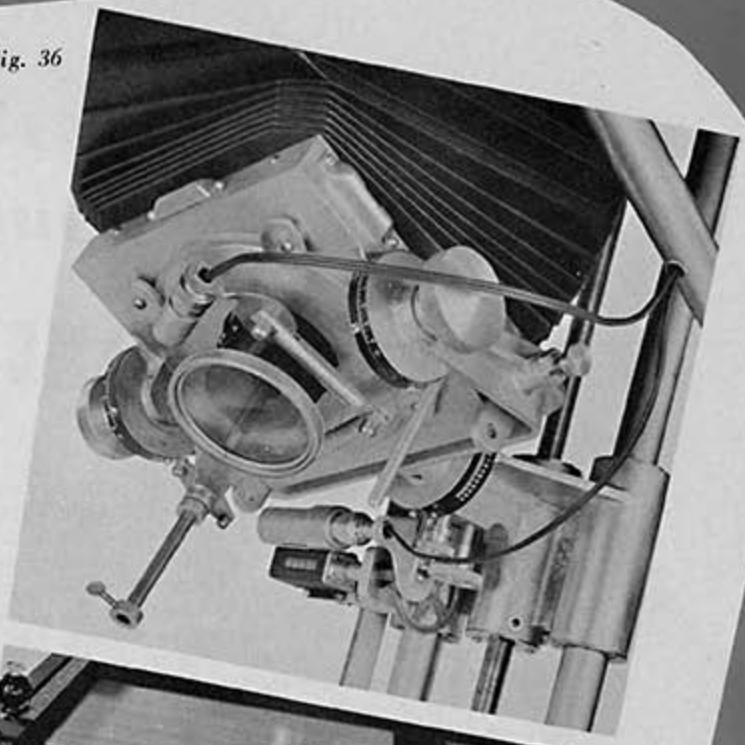


Fig. 37

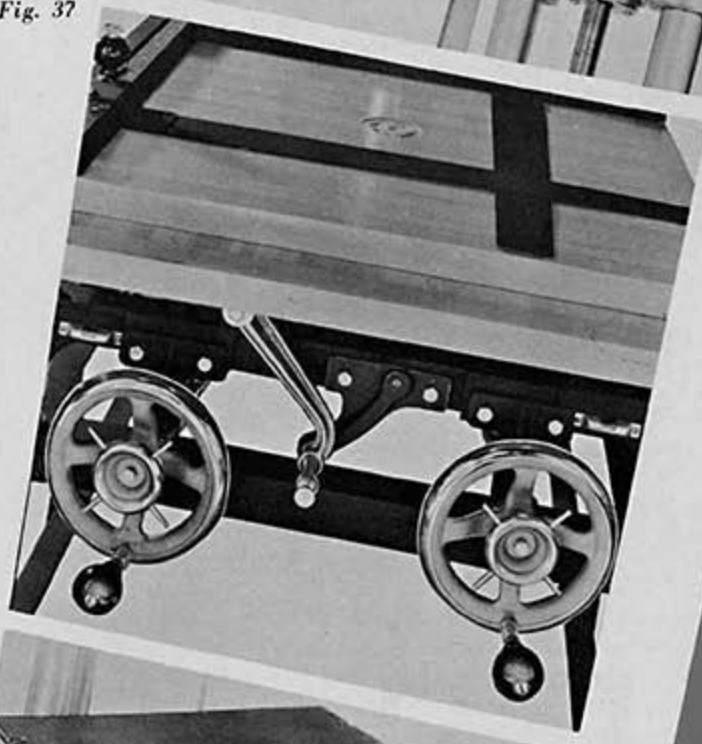


Fig. 35

GRAPHIC ARTS

30 WAC Enlarging and Reducing CAMERA

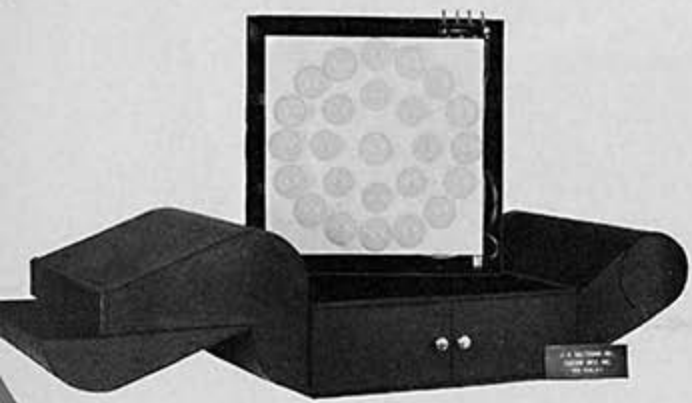
The Model #30WAC is an all metal enlarger designed primarily for use with a condenser-type lightsource employing a pair of 14″ condensers and a 12″ lens to fully cover an 8 x 10 negative, for enlarging up to 3½ times. However, a diffused incandescent lightsource can be incorporated successfully. This is a very sturdy piece of equipment for use when making separations for the lithographic field and for color prints on Type C material. The camera can be locked to the post in any predetermined position. No paper holder is included as standard equipment. Additional features can be incorporated such as counters, registration systems, etc. Lenses of different focal lengths with cones, can be used for enlargements and reductions.

The basic enlarger includes the following:

Baseboard 30″ x 42″	Safe Filter Holder
Post, 4½″ diameter x 6′ long	Footswitch
Rotary Negative Holder, 8 x 10	Camera Lock
Cut-off Assembly	Lenslight

Specifications are:

Floor Area Required	62″ long x 30″ wide
Weight of Enlarger	950 lbs. (approx.)
Height from Floor to Baseboard	28″
Baseboard to Negative Distance	68″
Height to Top of Lamphouse	109″ (condenser 119″)
Height to Top of Post	103″



Blower included but not shown.

Fig. 38

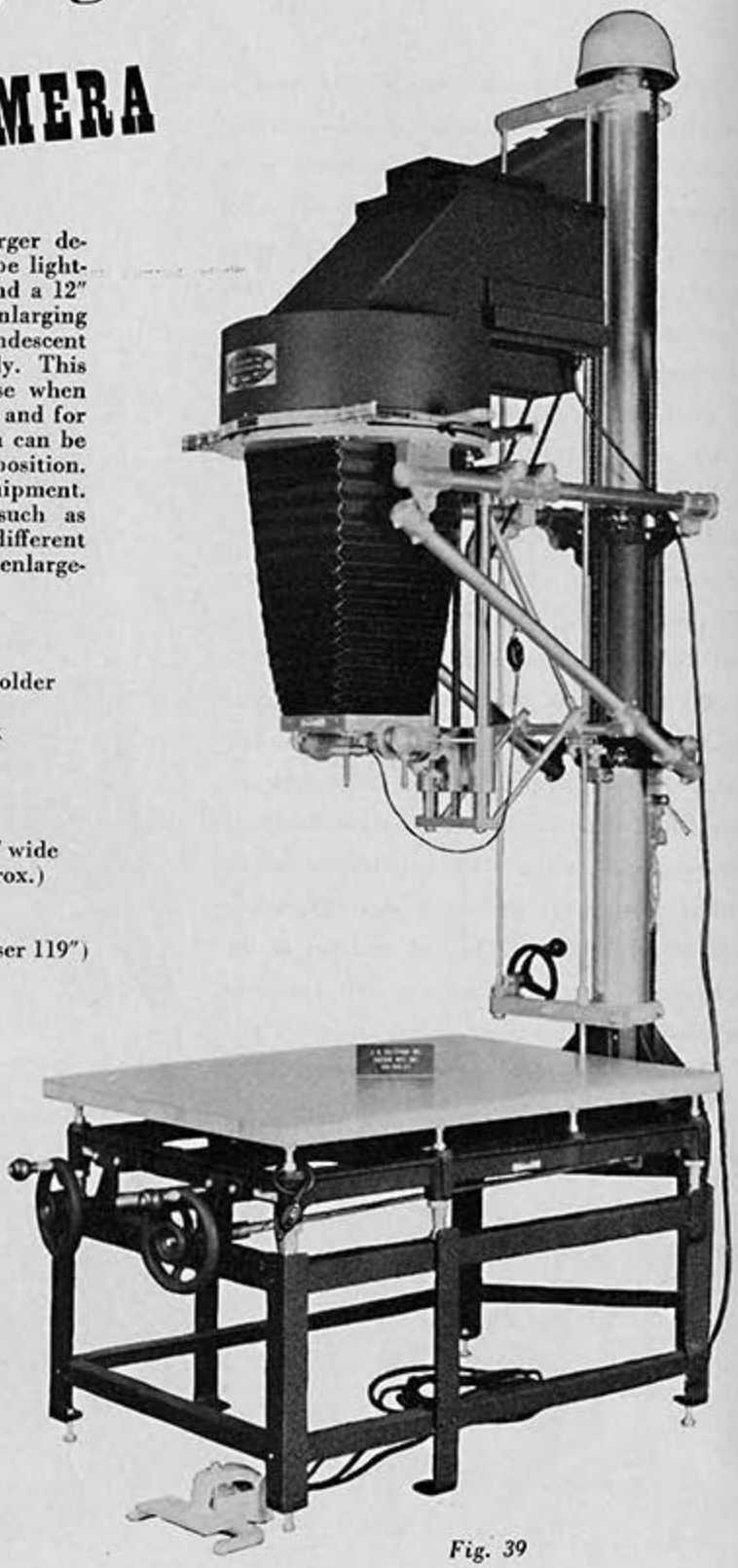


Fig. 39

J. G. SALTZMAN, Inc. Sales Distributors for CAESAR MFG., Inc.
480 LEXINGTON AVENUE, NEW YORK 17, N. Y.

30 WAHG Enlarger (Fig. 40)

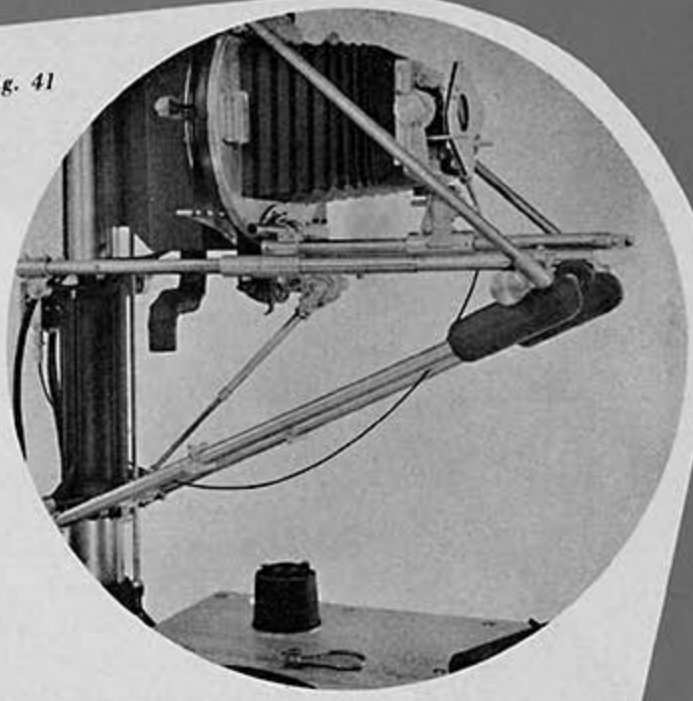


Fig. 41

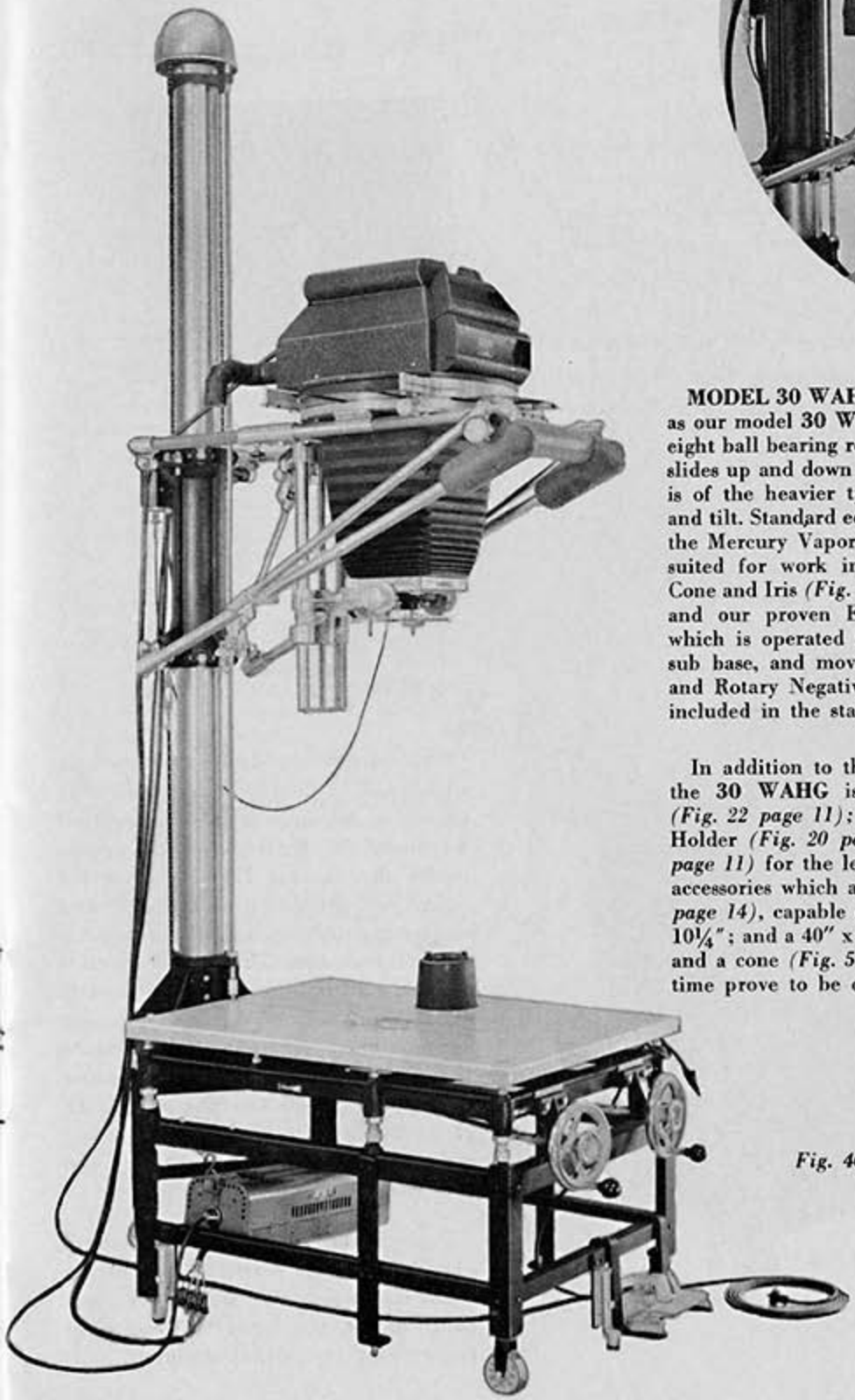


Fig. 40

MODEL 30 WAHG is substantially the same machine as our model **30 WAB.** The main slide is supported by eight ball bearing rollers. *(Fig. 32 page 15)* and the lens slides up and down on two tubes. The lens board holder is of the heavier type with accurate indication of tip and tilt. Standard equipment on both of these cameras is the Mercury Vapor light source with a special housing suited for work in horizontal and vertical positions, Cone and Iris *(Fig. 11 page 8)*; Filter *(Fig. 36 page 17)*; and our proven Electric Shutter *(Fig. 19 page 10)* which is operated by a Foot Treadle mounted on the sub base, and moving with same. A metal lens board and Rotary Negative Holder *(Fig. 14 page 9)* are also included in the standard equipment of both machines.

In addition to the previously mentioned accessories, the **30 WAHG** is equipped with Rubber Bumpers *(Fig. 22 page 11)*; and comes with a 20″ x 24″ Paper Holder *(Fig. 20 page 10)*, and a *Pilot Light (Fig. 23 page 11)* for the lens. We will again mention available accessories which are Square Cut Film Holder *(Fig. 28 page 14)*, capable of handling negatives up to 10¼″ x 10¼″; and a 40″ x 40″ Paper Holder *(Fig. 29 page 14)*; and a cone *(Fig. 55 page 35)* of 13″ length may sometime prove to be of value.

Vacuum Paper Holder Unit *(Fig. 42)*

We have spent a great deal of time in research on vacuum paper holders and are in a position to supply vacuum paper holder units in many combinations and sizes. The finest vacuum pump obtainable is supplied as a part of these units. The paper holder here illustrated accommodates paper from 8″x10″ to 20″x24″ and was made for wall mounting.

Fig. 42

MICROFLEX TIMER OPTIONAL

Fig. 43

30 WABH Enlarger *(Fig. 43)*

This model was developed for those who prefer a horizontal enlarger. The camera is the same as the one specified for **Model 30 WAB.** A mobile cabinet carries the camera. The wheels of the cabinet are equipped with brakes. Shutter and light controls are mounted conveniently on the cabinet. The cabinet contains all the equipment necessary to operate the enlarger and requires only one outside electrical connection. Approximate focus is obtained by moving the entire unit toward or away from the paper holder. At the desired place, brakes are locked and fine focus is accomplished by two handwheels on the camera.

Paper holding facilities are not included with **Model 30 WABH,** and should be ordered separately. We suggest a vacuum paper holder, this being the most satisfactory type for vertical mounting.

ENLARGER MODEL #30-WABHTQ

SPECIFICATIONS
ENLARGER MODEL 30-WABHTQ

Enlarger Model 30-WABHTQ is provided with the High Intensity Mercury Vapor Quartz Light Source 4500 watt.

The all metal camera with 8x10 revolving negative holder is our standard unit. Vertical movement of the lens is provided instead of tip and tilt. Normal position of the lens may be at any height above the track specified by the user.

A fast spindle is provided for focusing the lens and chain drive is provided for positioning the camera carriage.

A positive brake is provided for locking the camera carriage in position.

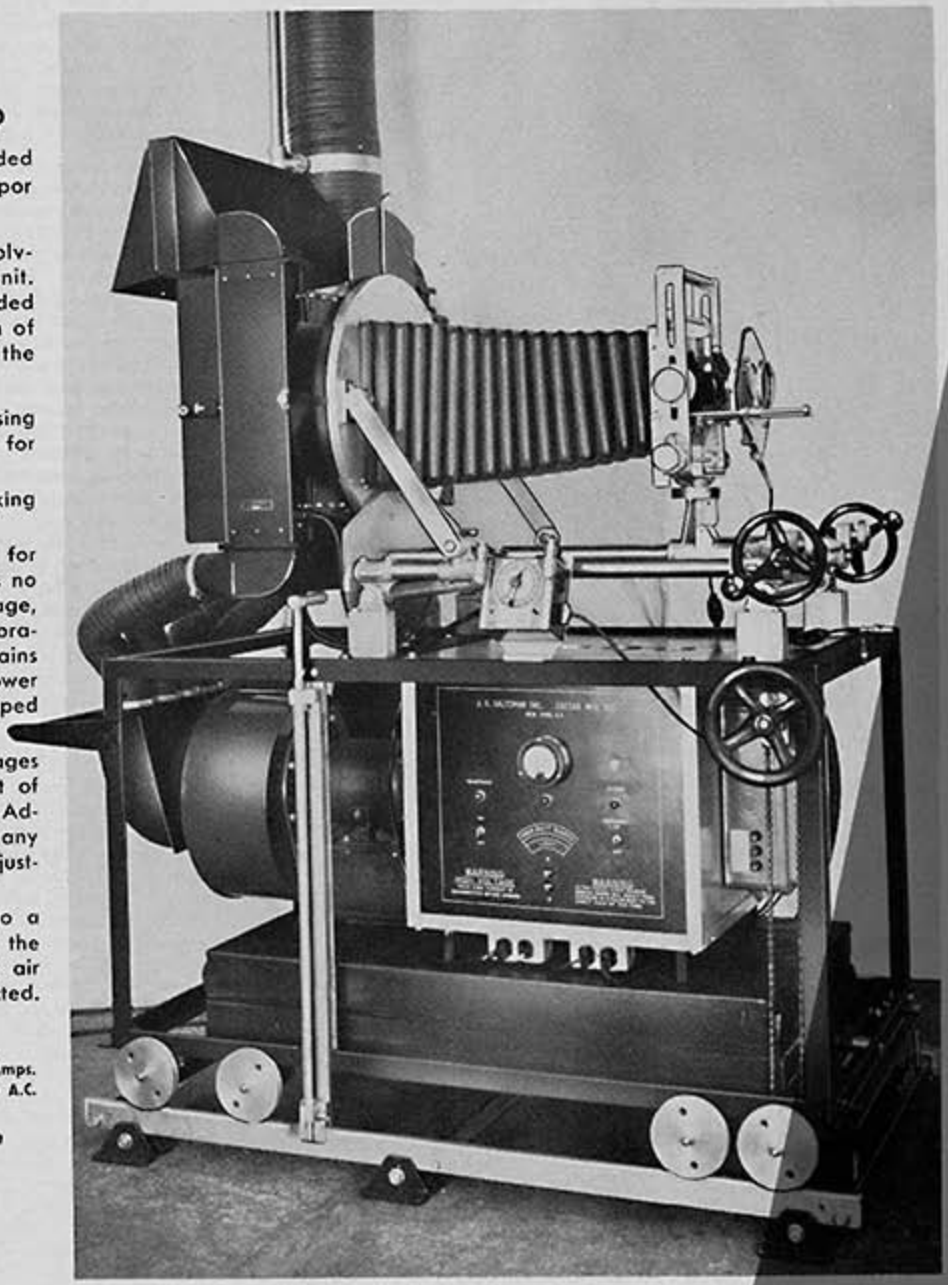
An individual carriage is provided for the transformer unit. This carriage has no solid connection to the camera carriage, thus preventing the transmission of vibration. The transformer carriage also contains the blower. Both transformer and blower are mounted on an especially developed vibration proof mount.

Both camera and transformer carriages run on a two rail track. Twelve feet of track is the standard length supplied. Additional track may be purchased to any length required. Rail supports are adjustable for leveling.

Flexible exhaust duct is provided to a point near the ceiling. From this point the user must provide for exhausting the air from the duct to the darkroom as directed.

CURRENT REQUIREMENTS ON LIGHT SOURCE—35 Amps. 3-Wire, 110-220 Volts, 60 Cycles, Single Phase A.C.

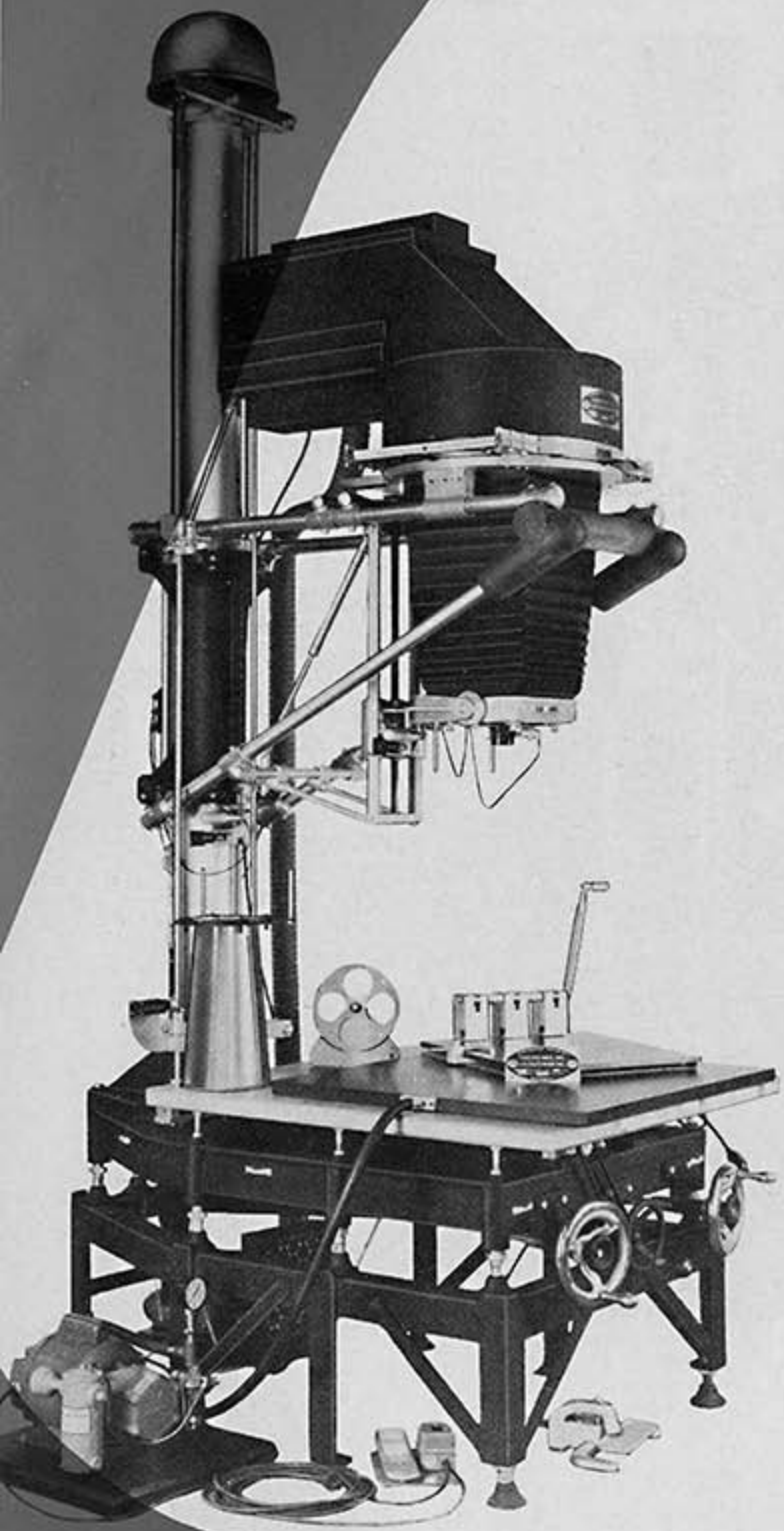
Ask us for any additional information you may require.



MB6DL SERIES WORLD'S FINEST Precision Copying, Enlarging

Condenser Type or Diffused

LIGHT SOURCE FOR PRECISION COLOR WORK



Our answer to the demand for Caesar-Saltzman Enlarger for COLOR WORK with a Condenser Light Source or a Diffused Light Source, is presented for your approval. The 8 x 10. models are MB6DL, MB6D and MB6A, and the 5 x 7 model is #30WRC.

We have added to the sturdy, time proven enlarger, a flexible incandescent condenser light source or the incandescent diffused light source which is the product of much research and experimentation. The Enlargers with these light sources have been thoroughly tested by some of the top men in the professional field and their verdict is "everything we asked for and more."

SPECIFICATIONS

The all metal camera with cut-off masks has a metal lensboard holder supported by double guide tubes, giving no lateral motion on the camera or lens. The camera has double focusing slides for stability. The lensboard holder with the larger 8" opening allows the insertion of cone to make ½ reductions with the same lens. The lensboard holder has spring locks for rapid interchange of lensboards or cones. A filter holder is mounted on the lensboard holder. This safe filter may be swung in front of the lens as desired.

The column of the enlarger is a finely ground and chrome plated seamless steel tube of 6" diameter. The camera unit travels the length of this column with perfect counterbalance on eight ball bearing rollers. The MB6DL and MB6D are precisely mounted on a heavy cast iron base while the MB6A is precisely mounted on a lighter cast iron base.

Both camera and lens motion have counters coupled which register the respective motions in ten one-thousandths of an inch (.010). By keeping a record of the settings at which any negative or set of negatives is printed, an exact duplication can be made at a later time of a single negative or any one of the set of negatives. Calibration and a ratio factor chart for individual lenses is available as an accessory.

The condensers are carefully selected and matched to give the best possible results. The condensers are mounted in a finely machined cast aluminum mount. The diameter of these condensers is 14".

The condenser mount rests on the all metal camera, positioned on the optical axis of the enlarger.

The all metal negative holders are built to customers' specifications and requirements. They are available in 10¼ x 10¼ square for film up to 10 x 12 inches, or the revolving type for film or glass plates up to 8 x 10 inches. Registration for film or plates can be incorporated in these holders for additional cost. Negative holders can be registered to the camera by means of hardened bushings and interlocking dowel pins which guarantee positive registration. For film, any desirable pin system can be incorporated. For one or two glass plates, a three point system with locks can be supplied.

The condenser lamphouse is of the bent light path type. This design permits adequate ventilation and ideal operating conditions, while at the same time limiting overall height. The lamp may be focused by a control conveniently located between the lens and camera focusing controls on the base of the enlarger. A counter is coupled to the lamp focusing mechanism, which permits the recording of the exact lamp position for any exposure, allowing the duplication of the setting at any time in the future. The light source may be operated either by a foot switch or the hand switch, also by an electric timer which may be furnished as a very useful extra.

The condenser lamphouse is regularly equipped with a 500 watt enlarging lamp which is suitable for color and black and white photographic materials. However, the Model MB6DL has a universal light source for use with a 500 watt enlarging lamp or a 1000 watt projection lamp. This unit will enable you to have complete control of your lighting problems. If you are doing three-color short run Eastman Process work, in order to get sufficient light through a set of masks, transparencies, filters, and a gray screen, it is necessary to use a point source of light and the lens must be used wide open. For this operation, we recommend a 12" f4.5 lens with which

J. G. SALTZMAN, Inc. Sales Distributors for CAESAR MFG., Inc.
480 LEXINGTON AVENUE, NEW YORK 17, N. Y.

Registration Camera for GRAPHIC ARTS and Reducing

you can obtain a reading of over 1000FC at the easel at 1:1. A variac and voltmeter for control of light and Kelvin output for color separations and black and white has been found very important as part of the extra equipment. A voltage stabilizer should also be used to keep the light output constant. If continuous tone separation negatives are made with this enlarger, the #302 bulb can be used successfully and the lens can be stopped down. A Goerz 12" f9 Artar Process lens is very adaptable for this particular operation. Half tone positives can also be made with a magenta screen on Kodalith film.

Direct half tone negatives can be made in fairly reasonable time using the 1000W clear projection bulb with a 12" f4.5 lens at full aperture.

The optical system of the condenser type requires the use of a lens of approximately 12" focal length for enlarging. The diffused type can use various focal length of lenses. The Models MB6A, MB6D and MB6DL include a 12" lens tested for use with our machines. This lens, or other lenses ordered from us with enlargers, are mounted on a metal lens-board.

We highly recommend the diffused light source with the multiple bulbs where the Eastman Kodak Type C color material is used or where different focal length lenses are required—for making continuous tone separations or half tone positives. While this light source is considerably slower than the condenser type, it has the advantage of eliminating the high contrast and will save considerable time in spotting and retouching. With the individual switches, consistency in dodging can be obtained. The standard unit uses 25 bulbs or 2180 watts controlled by four switches. With a step-up transformer and blower, 4000 watts are obtainable. Individual switches and pilot lights for the 25 bulbs can be supplied at extra cost.

The Cold Cathode Varilight light source with blower system for constant light output and high actinic value can be used very successfully for making half tone positives from continuous tone negatives. This light source is highly recommended for those who prefer a diffused light source to the condenser type, but it is slightly slower. Different focal length lenses can be used, as required.

The Models MB6D and MB6DL with a 12" lens and condenser light source, requires a ceiling height of 140" for 5 times enlargements. With the use of the 14" cone, ½ reductions can be obtained. The Model MB6A with condenser lightsource, and a 12" lens, requires 128" for 4 times magnification. The ceiling height required with the diffused light source is ten inches less than with the condenser type. The space required for the MB6D and MB6DL is 62" x 36" while 62" x 30" is required for the MB6A. The table of the MB6DL and MB6D is 36" x 40" and the MB6A is 30" x 42".

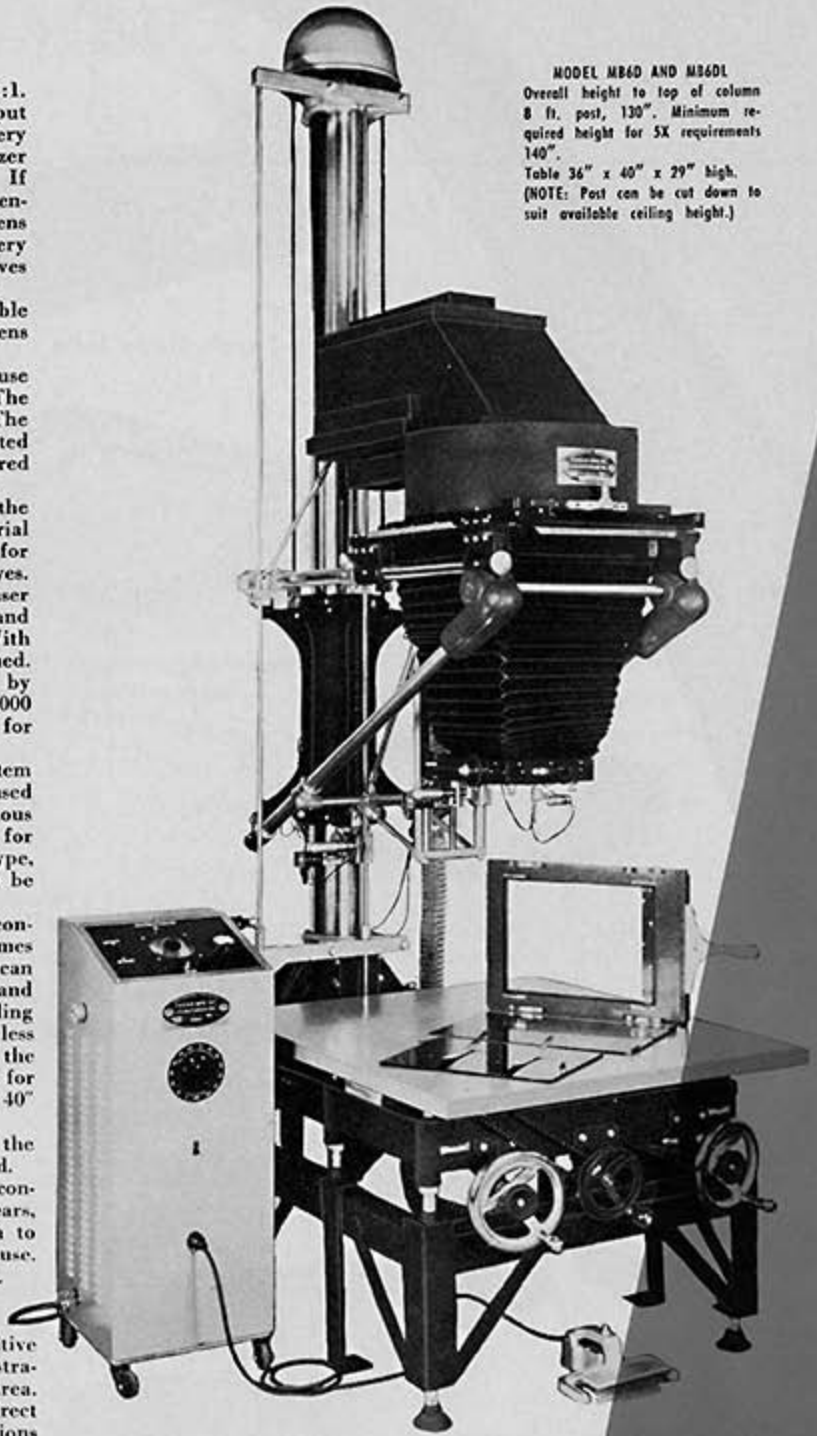
All the operating controls are located on the base of the machine at the front, and are most conveniently arranged.

Workmanship throughout is painstaking and subject to continuous inspection. Our Enlargers are built to last for years, a great many are still giving satisfactory service after ten to twenty years of commercial, industrial and laboratory use. Our Enlargers are built to meet your particular problems.

OPTIONAL - EXTRA SPECIAL FEATURE

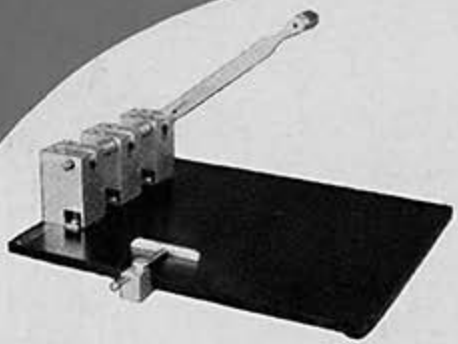
Combination copying and enlarging camera with positive registration of the negative holder to the camera with registration pins. Film area 11" x 14" with an 8" x 10" projection area. This unit can be used in the camera head for making direct screen separations up to 10" x 12", continuous tone separations up to 8" x 10", and masks from reflected copy or transparencies in register. Also, screen positives or negatives up to 5X magnifications can be made on the base of the enlarger from an 8" x 10" image with a 12" lens. THIS SPECIAL FEATURE MUST BE INCORPORATED AT THE TIME OF MANUFACTURE.

When making inquiry, please supply information as to the darkroom ceiling height and the voltage and type of electrical current available. This is important. The post of the enlarger can be cut to suit available ceiling height.

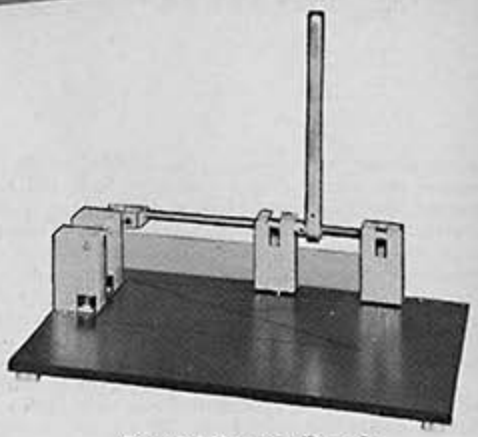


MODEL MB6D AND MB6DL
Overall height to top of column 8 ft. post, 130". Minimum required height for 5X requirements 140".
Table 36" x 40" x 29" high.
(NOTE: Post can be cut down to suit available ceiling height.)

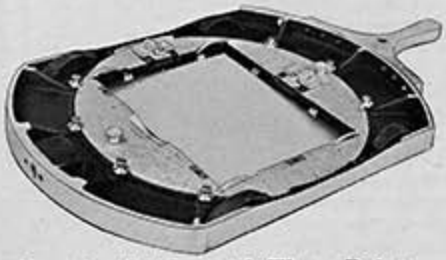
Accessories Available Including Complete Registration Systems
(Made to customer's specific requirements)



Three Hole Punch, Model 150A



Special Double Punch
with Vacuum Attachment.



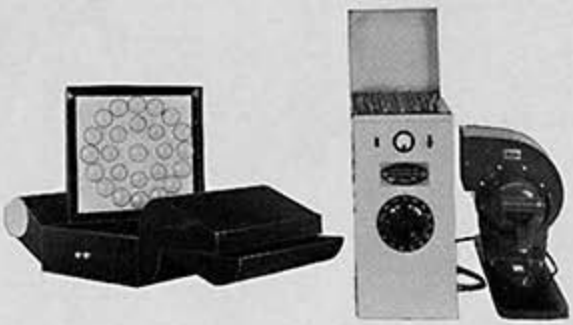
Negative Holder with Three-Point
Registration for one or
two plates.

Negative Holder with pins and removable bar
for 10 x 12 down to 5 x 7 film.

Model 149A Vacuum Easel with double
set of pins, made to specific customer
requirements.

ADDITIONAL OPTIONAL LIGHT SOURCES AVAILABLE

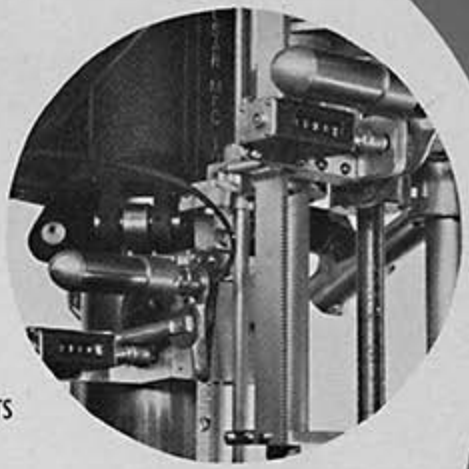
Cold Cathode Varilight Light Source.
Blower (not shown).



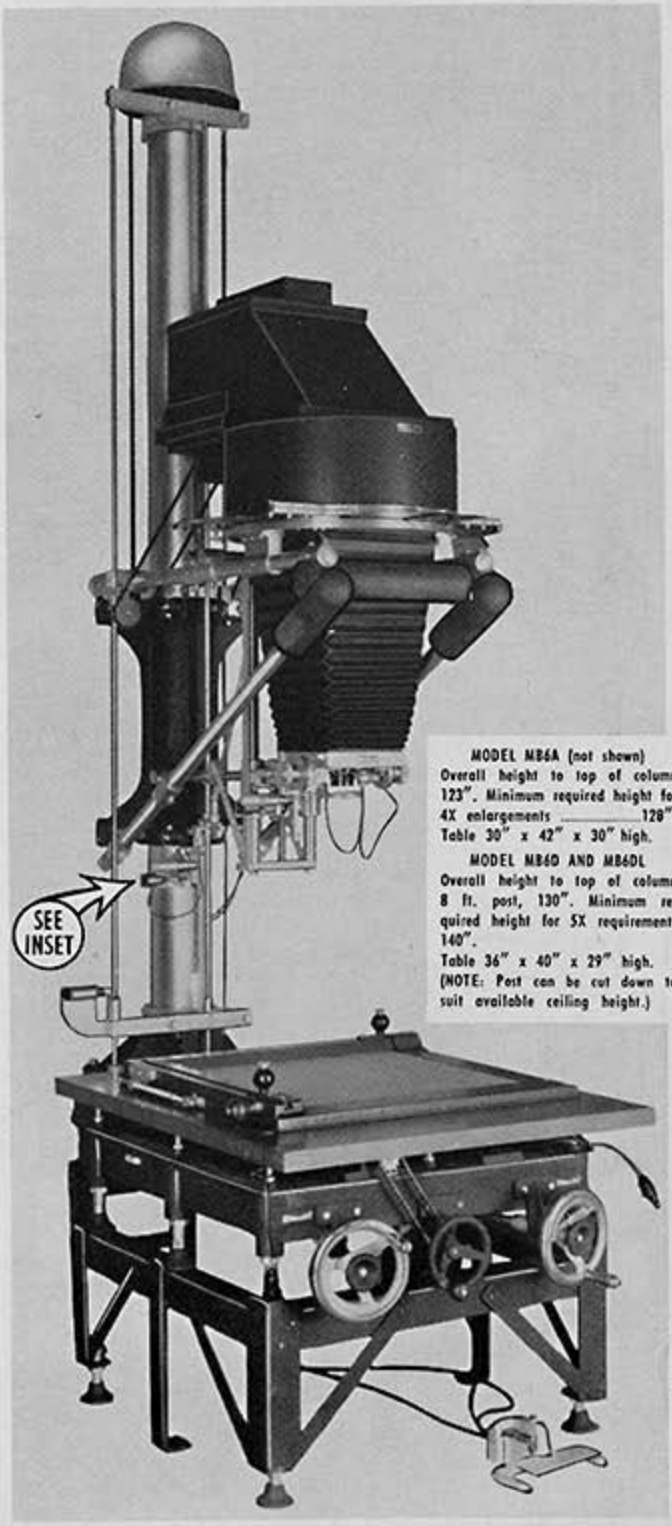
Diffused Incandescent Light Source with individual
control for each bulb. Step-up transformer 3200° Kelvin
(color temperature) with Variac and Voltmeter.

Model 154 Variac and
Voltmeter Assembly
with Voltage Stabilizer.

MB6D
WORLD'S FINEST
ENLARGING CAMERA
FOR
PRECISION COLOR WORK



INSET SHOWING COUNTERS WITH COUNTERLIGHTS



MODEL MB6A (not shown)
Overall height to top of column 123". Minimum required height for 4X enlargements _____128".
Table 30" x 42" x 30" high.

MODEL MB6D AND MB6DL
Overall height to top of column 8 ft. post, 130". Minimum required height for 5X requirements 140".
Table 36" x 40" x 29" high.
(NOTE: Post can be cut down to suit available ceiling height.)

MB6D Enlarger

This machine is one of the heaviest enlargers built by us to date. The camera is supported by a 6" Dia. steel post. The whole unit mounts on a very heavy cast iron base for greater strength. This machine is suitable for use in connection with special types of light source, such as condensers, high intensity, mercury arc. etc. The machine can easily be adapted to conform to the wishes and ideas of the customer. This machine is capable of making enlargements from negatives up to 10¼" x 10¼" in the square negative holder *(Fig. 28 page 14)* or 8" x 10" in the rotary negative holder *(Fig. 14 page 9)*.

Model C842A 14" Cone for Lens Board for 50% Reduction with 12" Lens used only on MBD6L Series.

MACHINES USED FOR PHOTOGRAMMETRIC WORK

30 WAA Enlarger (Fig. 45)

This machine is capable of making enlargements or reductions from all sizes of film up to 10¼" x 10¼" and from Aerial roll film. The camera unit is mounted on a steel tube 4½" in diameter. This post is ground and polished to 180 grit and chrome plated. The camera unit moves up and down the 4½" tube post, contacting the post by means of 8 ball bearing rollers *(Fig. 32)* and guided by two keys. The camera unit is completely counterbalanced by means of weights concealed within the post *(Fig. 5 page 6)*. The tube post and projection board are mounted on a heavy cast iron base to insure maximum rigidity and constant alignment. The projection board is fastened to the base at 10 points, each point adjustable for aligning purposes *(Fig. 7 page 7)*. The cast iron base rests on a structural steel sub-base by means of 7 flanges, each adjustable for leveling the enlarger. The sub-base contacts the floor at 7 points with 4 points adjustable to compensate for any unevenness in the floor. The camera unit is mounted on steel tubes and moves in a horizontal plane, parallel to the projection board, to accommodate projections of various sizes. It can be easily moved by means of a hand wheel mounted on one of two spindles concealed within the horizontal tubes *(Fig. 30 page 15)*. The two spindles are connected by a chain and the camera will stop motionless at whatever point it is set. To insure accuracy the lens is mounted in a metal lens board. The lens board is machined all over and has the thread cut directly in it. The front board is movable and tilts from side to side and from front to back. *(Fig. 36 page 17)*. Dial indicators guarantee an accurate reading of the angle of tip or tilt. The accurate zero position is secured by three snap locks *(Fig. 27 page 14)*. A safe filter is mounted on the front board so that it may be easily swung in front of lens *(Fig. 36 page 17)*. The lens board is interchangeable with a cone for making reductions from large size negatives, and for making enlargements from 35 mm and other small negatives *(Fig. 12 page 8)*. Focusing is accomplished by means of two handwheel controls *(Fig. 37 page 17)* located in a convenient operating position on the front of the enlarger, supported on the cast iron base, slightly below the projection board. When facing the enlarger in the operating position. the right hand control effects the raising and lowering of the entire camera unit and left hand control effects the change in distance between lens and negative.

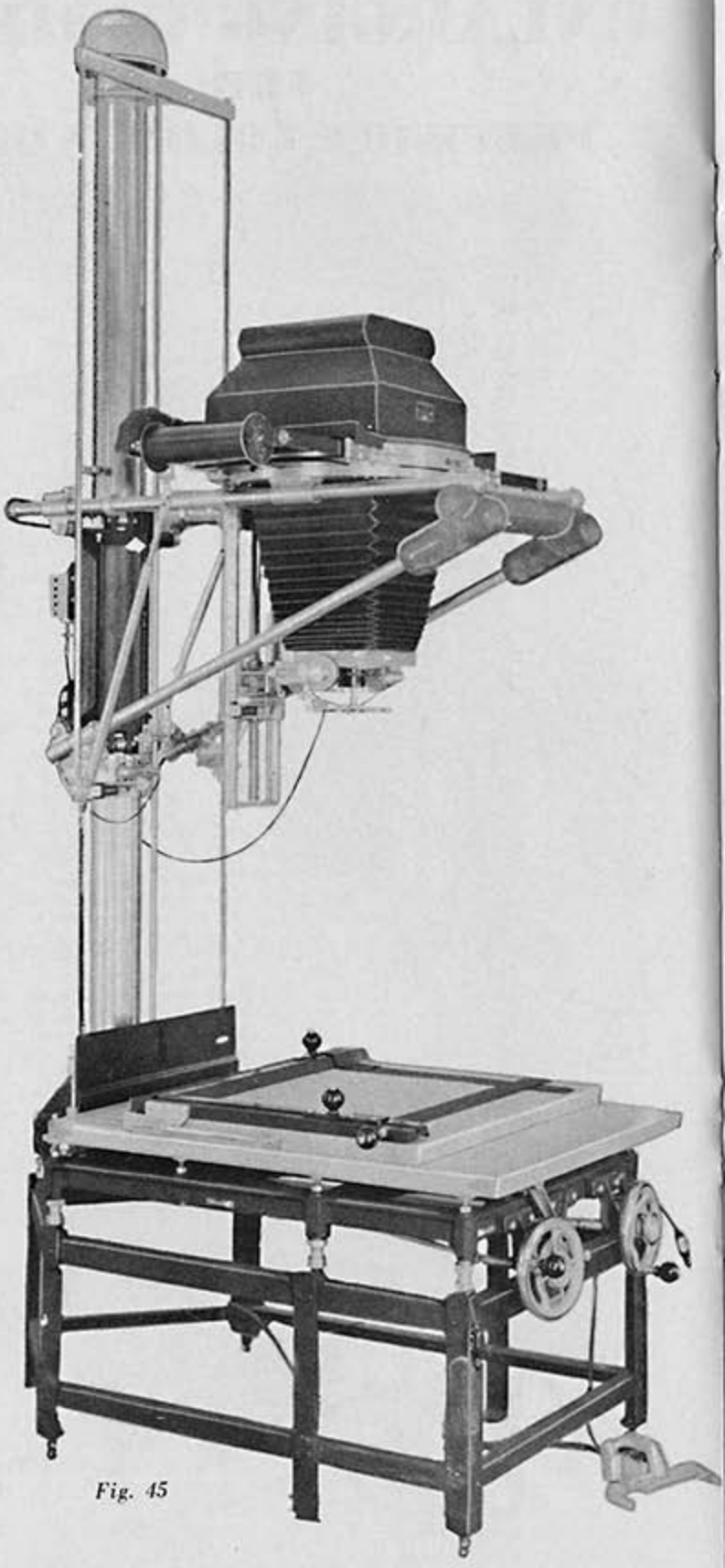


Fig. 45

The motion of the control handle for raising and lowering the entire unit is transmitted by means of steel shafting to a worm reduction gear *(Fig. 4 page 6)*, for smooth, vibrationless operation. The motion of the control handle for varying the distance between lens and negative is transmitted by steel shafting. Both controls have means for locking in any predetermined position. Two counters *(Fig. 34 page 16)* are mounted on the camera unit. Both are mounted in such a way that the slightest motion of either lens or negative is registered. The counters read to one one hundredth part of one inch. One counter shows distance from paper to negative, the other counter shows distance from lens to negative. Both counters are equipped with Pilot lights. The use of the counters in conjunction with a calibration chart enables one to accurately make changes in projection size of five one thousandths of a diameter. The enlarger is in focus at the sharpest point of the lens at all calibrated points. The lamphouse is of all metal construction with black wrinkle finish. It contains a reflector of satin finish aluminum. The source of illumination is a Mercury Vapor *(Fig. 16 page 9)* or Fluorescent light *(Fig. 17 page 9)*. The diffusion of this light source is accomplished by a flashed opal glass.

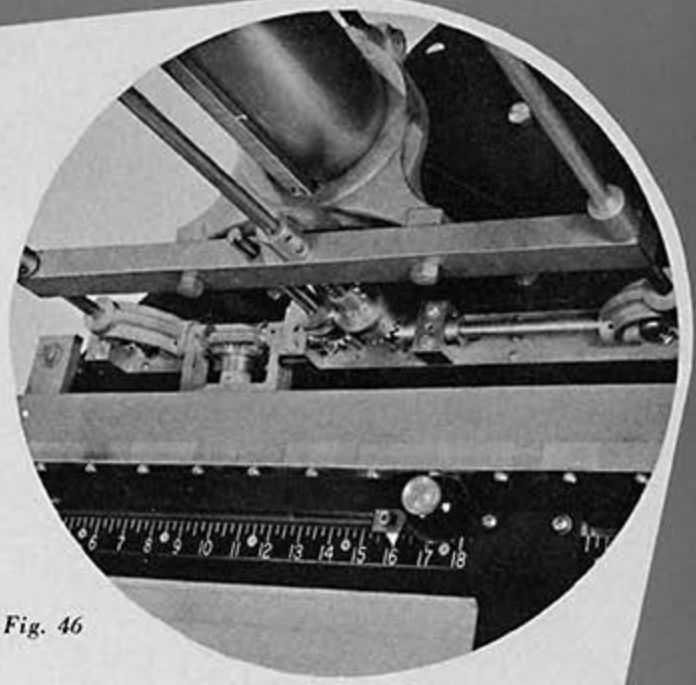
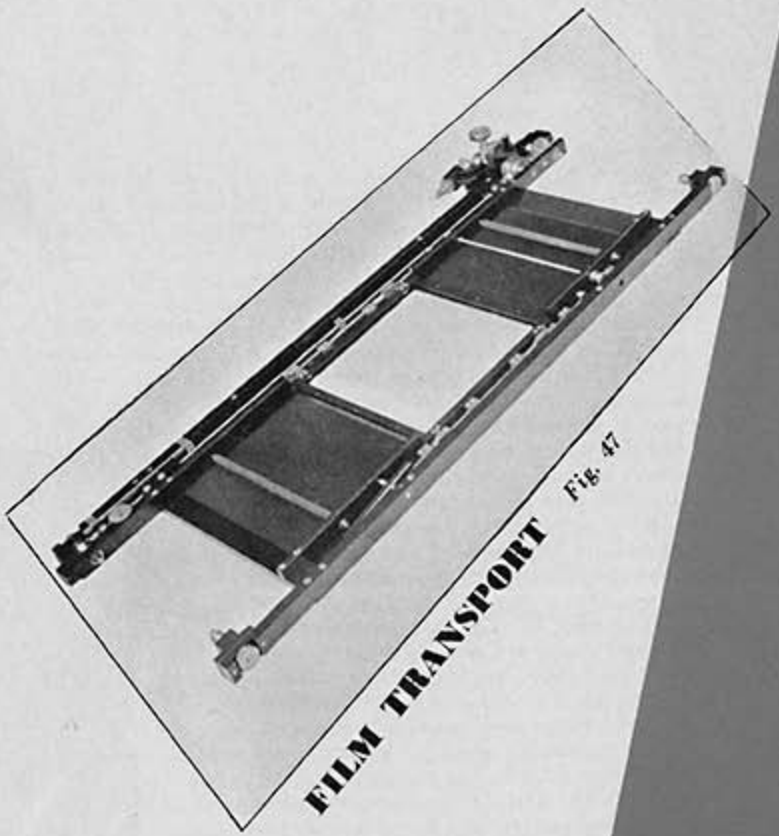


Fig. 46

The enlarger is equipped with an Electric Shutter *(Fig. 19 page 10)* operated by a Foot Switch. The lens generally supplied with this type of machine is (according to individual requirements) one from the following list: 12″ Artar, 12″ Dagor, 10¾″ Artar, or 10¾″ Dagor. Negative Holder for roll film 9½″ maximum in width forms part of the standard equipment of this machine. This roll film holder is removable and can be replaced by either a Square Negative Holder *(Fig. 28 page 14)* which also forms part of the standard equipment, or by a Rotary Negative Holder *(Fig. 14 page 9)* capable of holding negatives up to 8″ x 10″. This Rotary Negative Holder, however, is extra equipment. The roll film holder is operated by remote control by means of one handwheel and a lever in front of the enlarger *(Fig. 37 page 17)*. An accurate clutch mechanism *(Fig. 46)* makes it possible to reel film in either direction. While exposure is being made, the film is held between two glass pressure plates. The paper holder, described in *(Fig. 20 page 10)* forms part of the standard equipment.



FILM TRANSPORT Fig. 47

Larger Paper Holders, especially our model 40″x 40″ *(Fig. 29 page 14)* are available as accessories. Useful extra equipment for photogrammetric work is our restitutional easel *(Fig. 35 page 17)*. Small corrections up to approximately 4° in tip or tilt may be made when used in conjunction with our paper holder *(Fig. 20 page 10)*. Tip and tilt motion of the lens is accurately in the center of the optical axis, and tip and tilt motion of the restitutional easel is centered on the point at which the optical axis of the lens strikes the surface of the projection paper. Motorized horizontal motion, such as shown in *(Fig. 31 page 15)* is available in this type of machine. This model is known as **30 WAAM** *(Fig. 31 page 15)*.

MBGC Enlarger (Fig. 48)

This machine is very heavily constructed. The camera in general is like that of the **30 WAA.** It varies, however, quite considerably in its details and in its dimensions. It is capable of handling negatives up to 10¼″ x 10¼″ as well as aerial roll film up to 9½″ in width. The camera unit is mounted on a steel tube post 6″ in diameter. The post is ground and polished to 180 grit and chromium plated. The camera unit moves up and down the 6″ post contacting the post by means of eight ball bearing rollers. *(Fig. 32 page 15)*, and guided by two keys. The camera unit is completely counter-balanced by means of weights concealed within the post *(Fig. 5 page 6)*. The tube post and projection board are mounted on a heavy cast iron base to insure construction alignment. The camera unit is mounted on steel tubes and fastened permanently and accurately over the center of the projection board. The projection board is 36″ x 36″ and can be tipped or tilted to approximately 10° by means of two hand wheels located on the side of the frame of the projection board. Tip and tilt axis of the projection board are exactly on the surface of the board, and no matter how the board may be tipped or tilted, the accurate center of the board will always be motionless or, in other words, the optical center of the

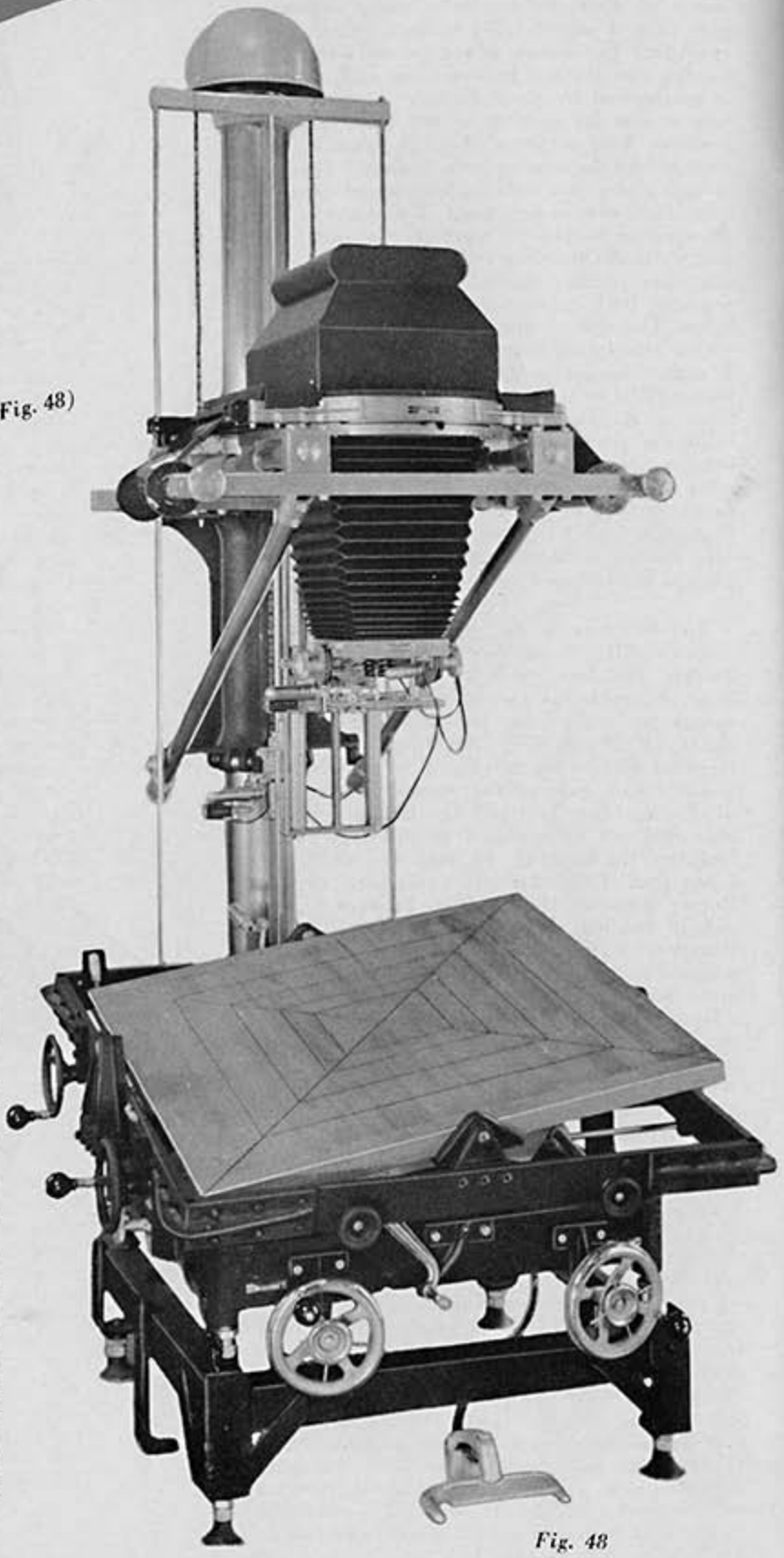
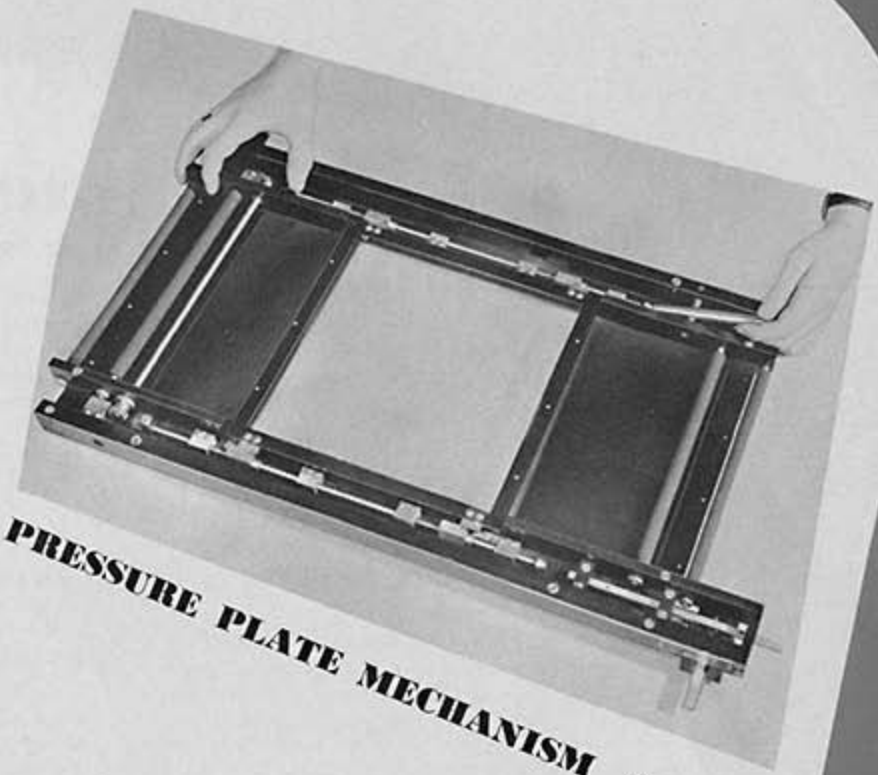


Fig. 48

board will not vary. The board is equipped with grooves which are connected with a vacuum pump. This arrangement will hold the paper on the board without the use of any frame, masking blades, or other arrangements. Locks are provided to readily fasten the board in whatever position is desired. Two dial indicators with Pilot lights show the degree of tip and tilt of the board. To insure accuracy, the lens is mounted in a metal lens board. The lens board is machined all over and has the thread cut directly in it. A calibration chart is furnished with this machine. The calibrations are usable only when the lens is mounted in the previously mentioned lens board. The lens board is movable and tilts from side to side and from front to back. Dial indicators *(Fig. 36 page 17)* guarantee an accurate reading of the angle of tip or tilt. The accurate zero position is secured by three snap locks. A safe filter *(Fig. 36 page 17)* is mounted on the front board so that it may be easily swung in front of the lens. The lens board is interchangeable with a cone *(Fig. 12 page 8)* for making reductions and for making enlargements from 35 mm and other small negatives. A pilot light *(Fig. 23 page 11)* is provided for reading the lens aperture setting. Focusing is accomplished by means of two hand-wheel controls located in a convenient operating position on the front of the enlarger, supported on the cast iron base, slightly below the projection board *(Fig. 37 page 17)*. When facing the enlarger in the operating position, the right hand control effects the raising and lowering of the entire unit and the left hand control effects the change in distance between lens and negative. The motion of the control handle for raising and lowering the entire unit is transmitted by means of steel shafting to a worm reduction gear *(Fig. 4 page 6)* for smooth vibrationless operation. The motion of the control handle for varying the distance between lens and negative is transmitted by steel shafting. Both controls have means for locking in any predetermined position. Two counters *(Fig. 34 page 16)* are mounted on the camera unit. Both are mounted in such a way that the slightest motion of either lens or negative is registered. The counters read to one one hundredth part of one inch. One counter shows distance from paper to negative, the other counter shows distance from lens to negative. Both counters are equipped with Pilot lights. The use of the counters in conjunction with the calibration chart enables one to accurately make changes in projection size of five one thousandths of a diameter. The enlarger is in focus at the sharpest point of the lens at all calibrated points. The lamphouse is of all metal construction with black wrinkle finish. It contains a reflector of satin finish aluminum. The source of illumination is a mercury vapor *(Fig. 16 page 9)* or Fluorescent light *(Fig. 17 page 9)*. The diffusion of this light source is accomplished by a flashed opal glass. This machine is permanently equipped with a Roll Film Holder which accommodates a maximum of 9½" width aerial roll film spools, and with a removable pressure plate mechanism *(Fig. 49)*. This pressure plate mechanism can be replaced by a cut film holder of either Square *(Fig. 28 page 14)* or Rotary *(Fig. 14 page 9)* type. The operation of the pressure plates and the film mechanism is controlled in the same way as on the **30 WAA** — by means of the focusing handwheel and the lever situated on the front of the enlarger base. A sturdy clutch makes the moving of the film in either direction possible. The film motion and pressure plates are thereby synchronized in such a way that the tearing of the film is impossible because the motion of the film is disconnected at the time when the pressure plates are closed. The mere action of opening the pressure plates, releases the film, and connects the drive mechanism, permitting the film to be reeled in either direction. This machine is especially suitable for restitutional work of aerial negatives with tip or tilt of approximately 8°.



PRESSURE PLATE MECHANISM *Fig. 49*

World's Finest High Intensity Mercury

This Light Source can be used on any Enlarger

3400 WATTS
or
4500 WATTS

The 3400 and 4500 watt **Diffused High Intensity Mercury Quartz Light Source** presented for your consideration in this brochure is the culmination of research and development extending over a period of 25 years. As with many other items, we were the pioneers in the use of the High Intensity Mercury Vapor Light Source for photographic purposes.

This light source, in addition to making projection prints from normal negatives better and much faster than before, also makes completely satisfactory prints from negatives formerly considered impossible to print. The penetrating power of the light source permits the printing of extremely dense negatives at a good, economical rate of speed. The High Intensity Mercury Vapor Quartz Light Source also supplies a large amount of contrast.

USERS REPORT:--

"Production of enlargements of 9" x 9" aerial negatives has increased from 100 prints per day using the standard Mercury Vapor Light Source, to over 700 prints per day using the High Intensity Mercury Vapor Quartz Light Source."

"40" x 60" prints involving 8x enlargement made in 30 seconds or less depending upon negative density."

"Production runs of 40" x 60" prints from the same negative absolutely uniform in quality."

"A 15x enlargement of an 8" x 10" negative requiring 40 minutes with the standard Mercury Vapor Light Source, made in 3 minutes with the High Intensity Mercury Vapor Quartz Light Source."

"Enough light to focus and scale in prints at F45."

"Much better penetration of dense negatives than with any condenser type light source, while preserving the detail in the high lights and shadows."

In addition to the above, our own experiments have shown that a line negative may be focused in semi-daylight at a distance of 30 feet. In darkness, an image was focused sharp by observing it from a position at the enlarger, the distance of throw being 90 feet, the enlargement being 66x, and the wall area covered being 55 feet long. The Photomuralist will require only the time it takes to read this to realize the advantages this light source will give to him, especially in cutting down time required for test prints. Being a diffused type light source, this permits the use of lenses of various focal lengths.

SPECIFICATIONS

The 3400 or the 4500 watt High Intensity Mercury Vapor Quartz Light Source may be used for either vertical projection as illustrated by our Model MB6CQ, or for horizontal projection as shown by our Model 30WABHTQ.

The tube or burner, as it is called, is made of Quartz and is available in two different wattages, 3400 watts and 4500 watts. The current is supplied to each by a transformer and capacitor with the circuit designed for constant light output.

A single pushbutton controls the operation of the light source. After the burner lights, its warm up period is from 5 to 10 minutes, depending upon the ambient temperature.

A thermostatic temperature control is provided which starts the operation of a blower automatically.

The blower is connected to the lamp house by means of flexible air duct. This insures proper movement and also freedom from vibration.

An air filter is provided in the lamphouse through which the air passes before being drawn through the lamphouse. In the lamphouse, the air is drawn between heat absorbing and heat resisting glass plates which protect the negative in the negative holder, which is just below the flashed opal glass that diffuses the light.

A thermostatic limit switch is provided on the lamphouse as a further protection to the negative. If for any reason the temperature in the lamphouse should rise above a set amount, the burner is automatically shut off.

The air from the blower must be exhausted from the darkroom. Specifications for doing this are supplied for individual applications.

The controls for the light source are mounted on a panel on the transformer enclosure. Pilot lights and switches are provided for the Light Source, Blower, and a four way receptacle. A meter is provided so that the proper operation of the light source may be observed.

Safety at the lamphouse is provided by interlocking switches which prevent current from reaching the lamphouse should any vital part be open.

As always, it is our aim to provide the finest possible equipment for the profession. Our workmanship here, as elsewhere, is in line with this aim.

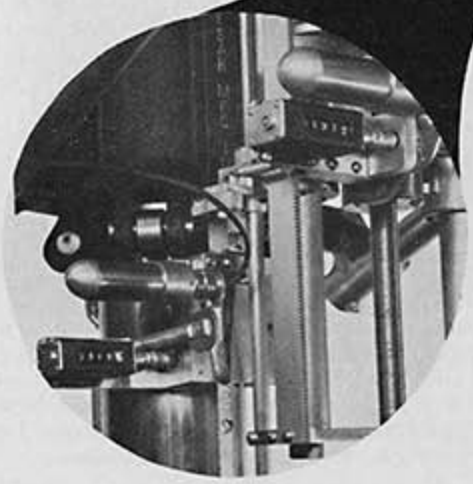
Further information and prices upon request.

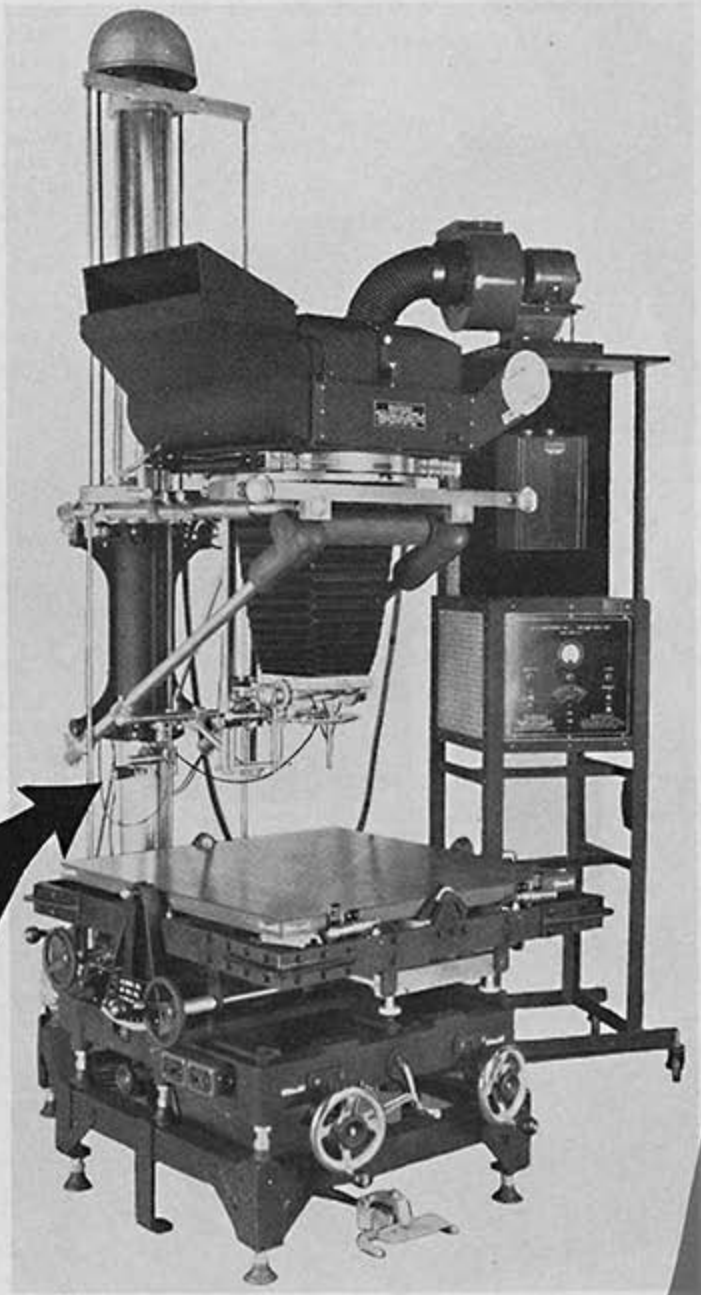
J. G. SALTZMAN, Inc. Sales Distributors for CAESAR MFG., Inc.
480 LEXINGTON AVENUE, NEW YORK 17, N. Y.

Light Source Vapor Quartz Tube

Features

1. *Capable of handling 10¼" x 10¼" as well as aerial roll film up to 9" in width.*
2. *Projection board 36" x 36" can be tipped or tilted to correct negative tilt of approximately 10° without varying the optical center of the board.*
3. *Board equipped with vacuum pump.*
4. *Lens mounted in metal lens board to insure accuracy.*
5. *Calibrated for ratio printing, calibration chart furnished.*
6. *A safe filter mounted on front board and easily swung in front of lens.*
7. *Rubber Bumpers.*
8. *Pilot lights on lens and counters and also on restitutional easel.*
9. *Locking devices on all controls.*
10. *Remote control for pressure plate and film movement.*
11. *Accessories available:*
    Cones of various sizes for reductions.
    Lenses of various focal length.
    Rotary negative holder, 8" x 10".





ENLARGER MODEL #MB6CQ

PHOTOGRAMMETRIC PRECISION CAMERA
Motorized Autofocus and Calibrated
MODEL #MB6AF

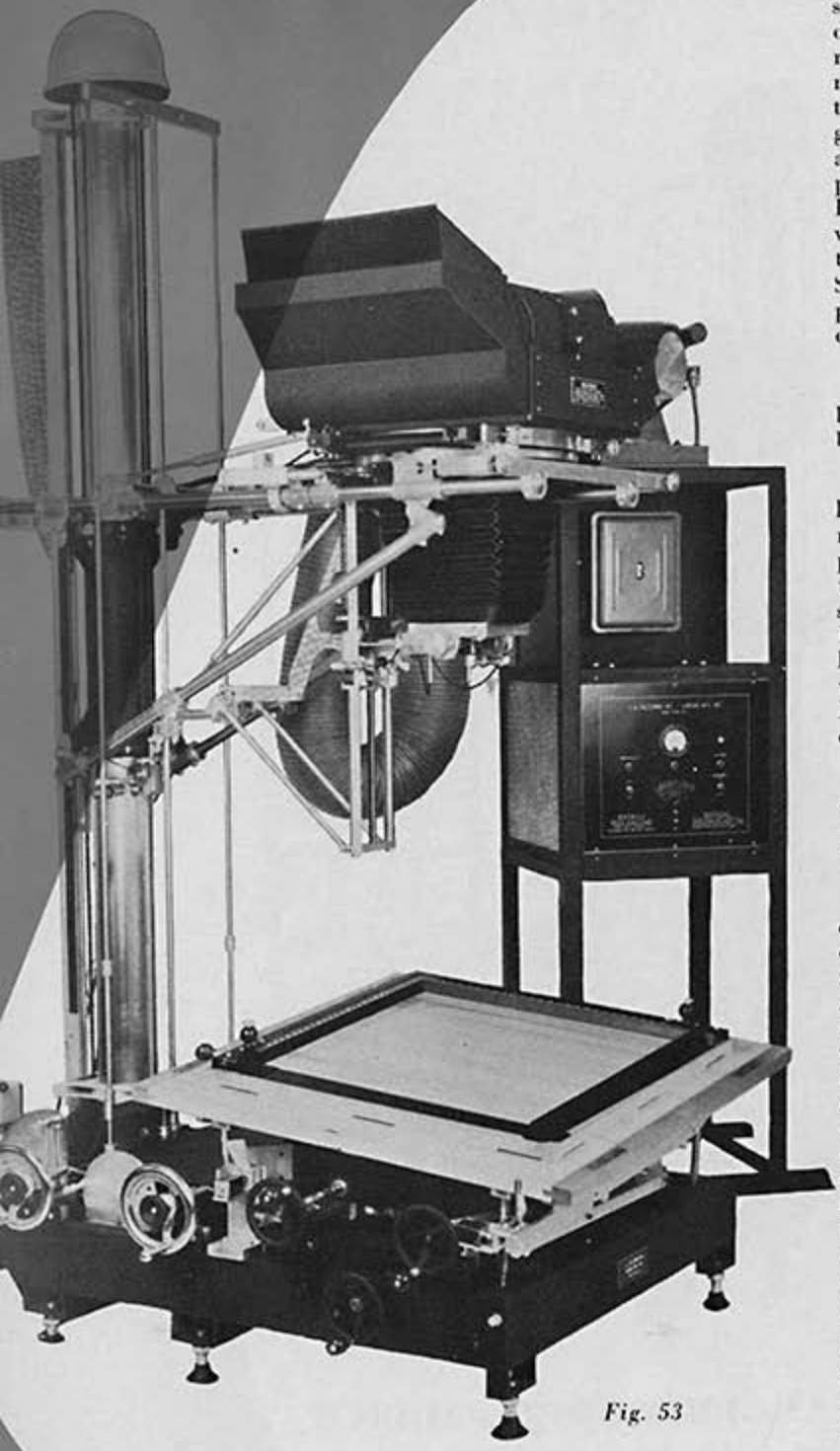


Fig. 53

The Model #124 MB6AF Enlarger is a heavily constructed precision all-metal camera capable of handling negatives up to 10¼″ x 10¼″ as well as aerial roll film up to 9½″ in width. The camera unit is mounted on a steel tube post 6″ in diameter, contacting the post by means of eight roller bearings on ground flats and guided by two keys. A mechanical autofocus is provided, having motor-drive with a positive electric clutch on the motor, or hand driven. Range of the autofocus is from 1.5 to 5 diameters with a 12″ lens. This mechanism can be disconnected to permit manual focusing and use of other lenses. Size of enlargement may be set either by scaling the projected image or by dial settings from a calibration chart.

With the high intensity mercury vapor lightsource, projection prints are made with a minimum of exposure. Other lightsources are also available.

The light source is of especial interest. It is of the high intensity quartz type and was supplied to make rapid enlargements of very dense aerial negatives possible. For example, a negative of such density that it required a 4 minute exposure, using our standard Mercury Vapor Light source, required only 15 to 20 seconds, using the high intensity quartz tube light source. The comparison becomes more pointed when it is noted that our standard Mercury Vapor light source is equal in actinic value to 5000 Watts of Mazda light.

A motor driven blower is provided to ventilate and cool the lamphouse. As filters keep dust from entering the lamphouse, a variety of light filters is also provided.

A 36″ x 40″ baseboard is supplied as standard equipment. However, a rectifying easel can be incorporated as shown in photo. This rectifying easel is 40″ x 40″ and provides correction from zero to 6° in all four directions. The lensboard holder is movable and can be tipped or tilted. A pilot light is provided for reading the lens aperture setting. Counters, reading to one one-hundredth part of an inch, are mounted in such a way that the slightest motion of either lens of negative is registered. The use of counters in conjunction with the calibration chart enables one to accurately make changes in projection size of five one-thousandths of a diameter. This machine is permanently equipped with a roll film holder which accommodates a maximum of 9½″ width aerial roll film spools, and with a removable pressure plate mechanism. A sturdy clutch makes the moving of the film in either direction possible, and the mere action of opening the pressure plates, releases the film and connects the drive mechanism, permitting the film to be reeled in either direction. Other special features can be incorporated into this precision enlarger, according to specifications.

RP 6 Enlarger

(Fig. 51)

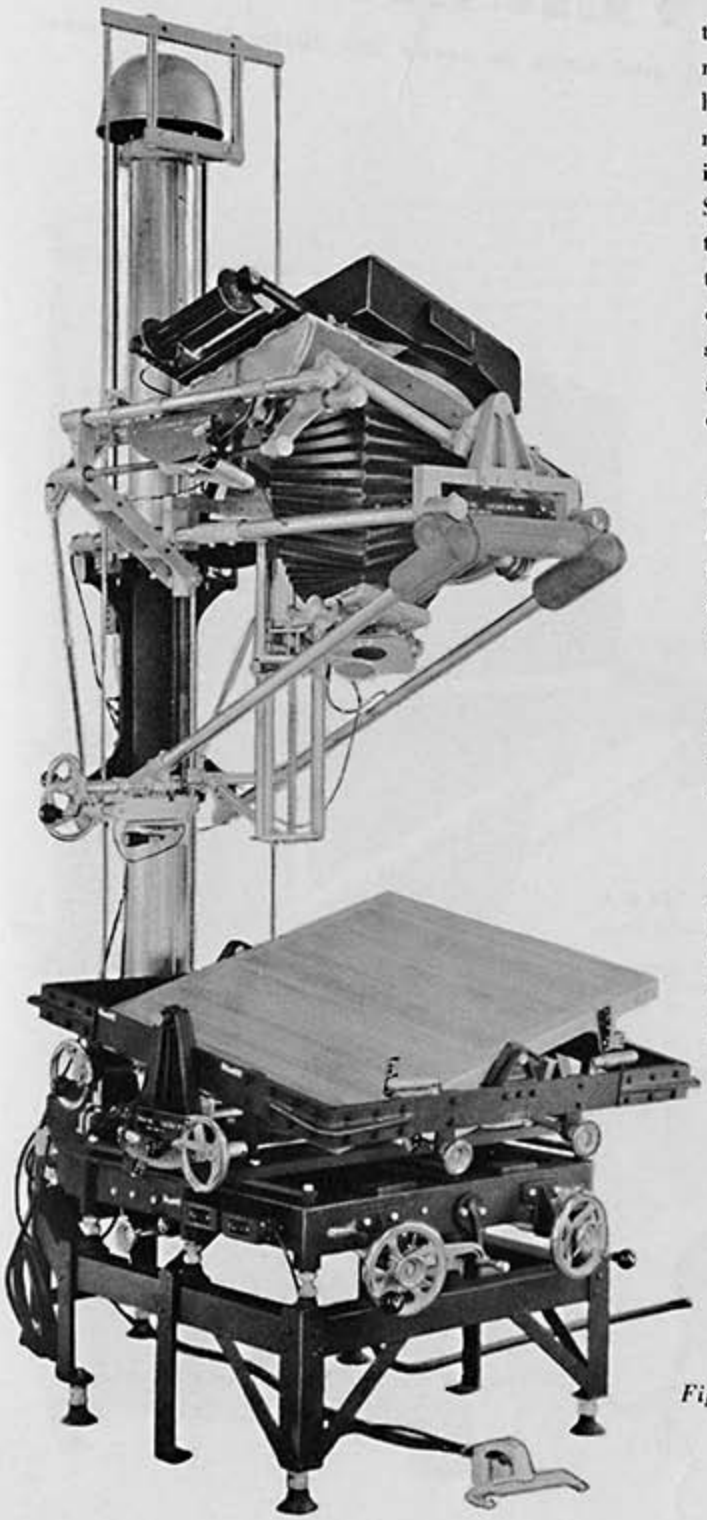


Fig. 51

The printer has the same general specifications as **Model MB 6 C.** The film transport mechanism is the same as on **Model 30 WAA,** however. **Model RP 6** is designed to tilt the negative as well as lens and paper holder making it possible to meet all the conditions of the Scheimpflug principle, up to 20° tilt. All controls for tilting are conveniently located so that the operator does not have to move from one position. Controls for various operations are subdivided so that several operators may work at the same time without interfering with each other.

Since it is not possible to revolve the negative about its center in this type machine tilt in two directions is provided, enabling the operator to obtain any position of tilt attainable by single tilt and revolving of the negative about its center.

Tolerances in mechanical construction are held within very close limits and general construction is such as to allow continuous operation, free from trouble.

This model embodies all the useful features of machines built to date, namely, calibration, remote control of negative motion, tip and tilt of lens, pilot lights, electric shutter, etc. In addition, the best available vacuum pump actuates the paper holder. The camera is regularly equipped with Fluorescent light source. Other lightsources are also available.

Vertical Reflecting Projectors For Fine Quality Detail

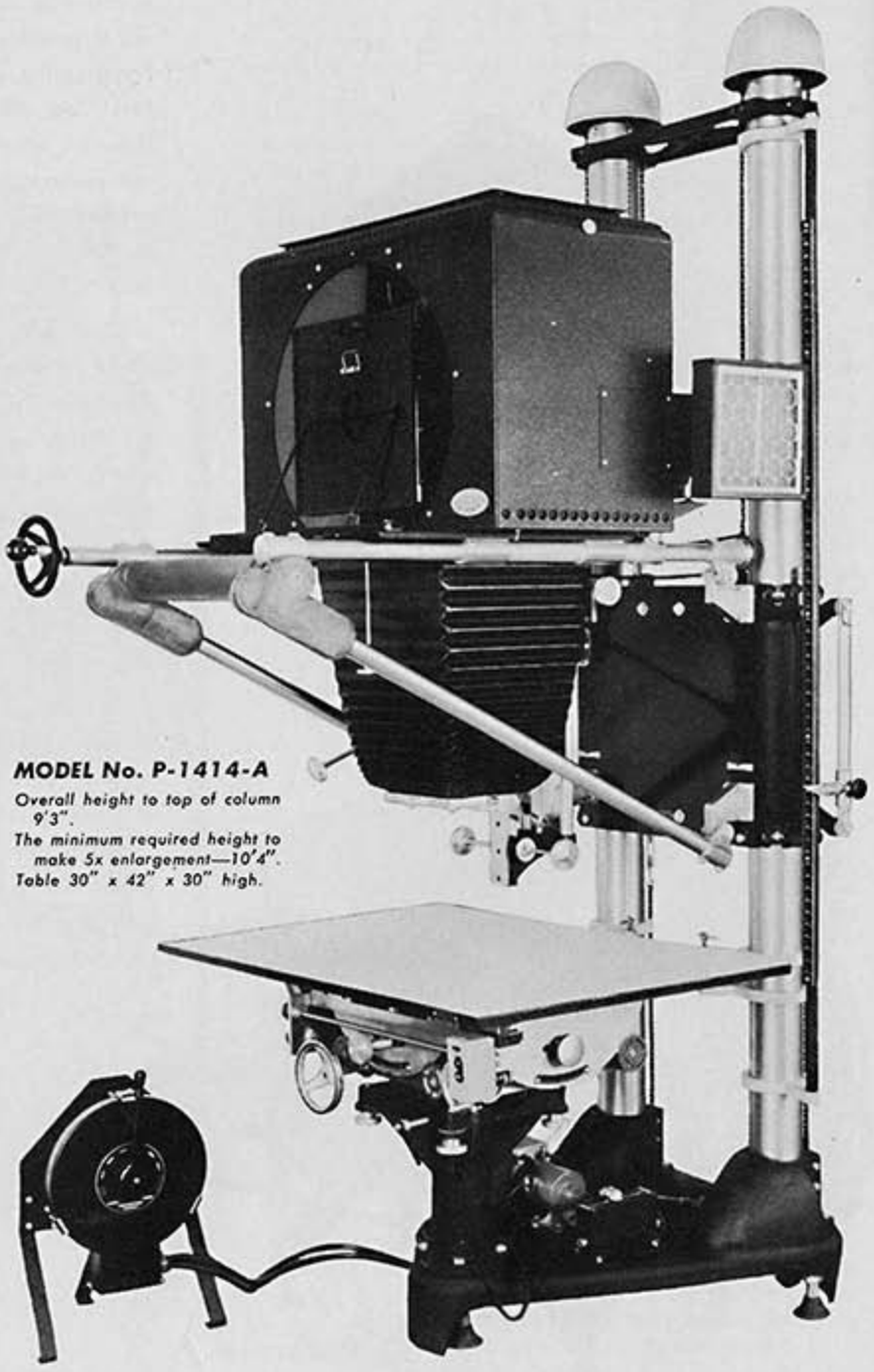
• GREATER VERSATILITY

Vertical Projectors were designed and built to serve the following purposes:

1. **Projection of opaque photographs or maps.**
2. **Drafting projections for tracing.**
3. **Projection for Art or Color Sketches.**
4. **Aerial Survey Map compilation.**
5. **Projection of Aerial Photographs for the various necessary purposes.**

The Vertical Reflecting Projector consists of the following:

1. **Interchangeable, felt-faced holders** for rollmaps or photographs.
2. **Lamphouse with illuminating system,** consisting of two 500 Watt T-20 projection lamps and glass pressure plate, rotating about its center. Filtered air, delivered by an electric blower into the lamphouse and on the pressure plate, keeps the temperature at a safe operating level.
3. **Diagonal mirror for erecting the image.** This is a first Silicon Monoxide Coated surface mirror of the finest quality obtainable. The optical qualities comply with rigid specifications and the mirror produces no visible distortion of the image, or loss of light.
4. **The vertical motion** of all CAESAR - SALTZMAN Reflecting Projectors is actuated by an electric motor. The control for this motor is located in a convenient place for ease of operation. Limit switches prevent overtravel. All projectors are counterbalanced with concealed weights, resulting in smooth, vibrationless operation.
5. **Line voltage control.** A rheostat or variable transformer controls the voltage on the projection lamps and, consequently, their brightness may be varied to suit individual needs. Proper use of this control also extends the life of the lamps considerably.



MODEL No. P-1414-A

Overall height to top of column 9'3".
The minimum required height to make 5x enlargement—10'4".
Table 30" x 42" x 30" high.

VARIETY OF ADAPTATIONS IN THREE MODELS

CAESAR - SALTZMAN Vertical Reflecting Projectors are available in three different models.

MODEL No. P-1414-A, shown at the left, will project photographs and sections of opaque maps up to and including 14" x 14". The lens is focused by either hand and has coarse and fine adjustment. The focusing is counterbalanced. A high grade 12" f-4.5 projection lens is standard for this projector, providing range of .25x to 5.0x. Greater reduction can be made by the use of lenses of shorter focal length which can be supplied upon request. For reduction to .125x a 7½" lens with 13" cone is used. A 5½" lens with 13" cone will produce a reduction up to .10x. The entire lamphouse unit has a horizontal motion of 16" with slow motion control in order to obtain coincidence at points on the tracing table. Model P-1414-A can be supplied with or without a metal table, with a linoleum drawing surface and leveling jacks, or a restitutional table with a tilt of approximately 10° and rotation. Basic price of Projectors do not include optional equipment.

J. G. SALTZMAN, Inc. Sales Distributors for CAESAR MFG., Inc.
480 LEXINGTON AVENUE, NEW YORK 17, N. Y.

GREATER FLEXIBILITY

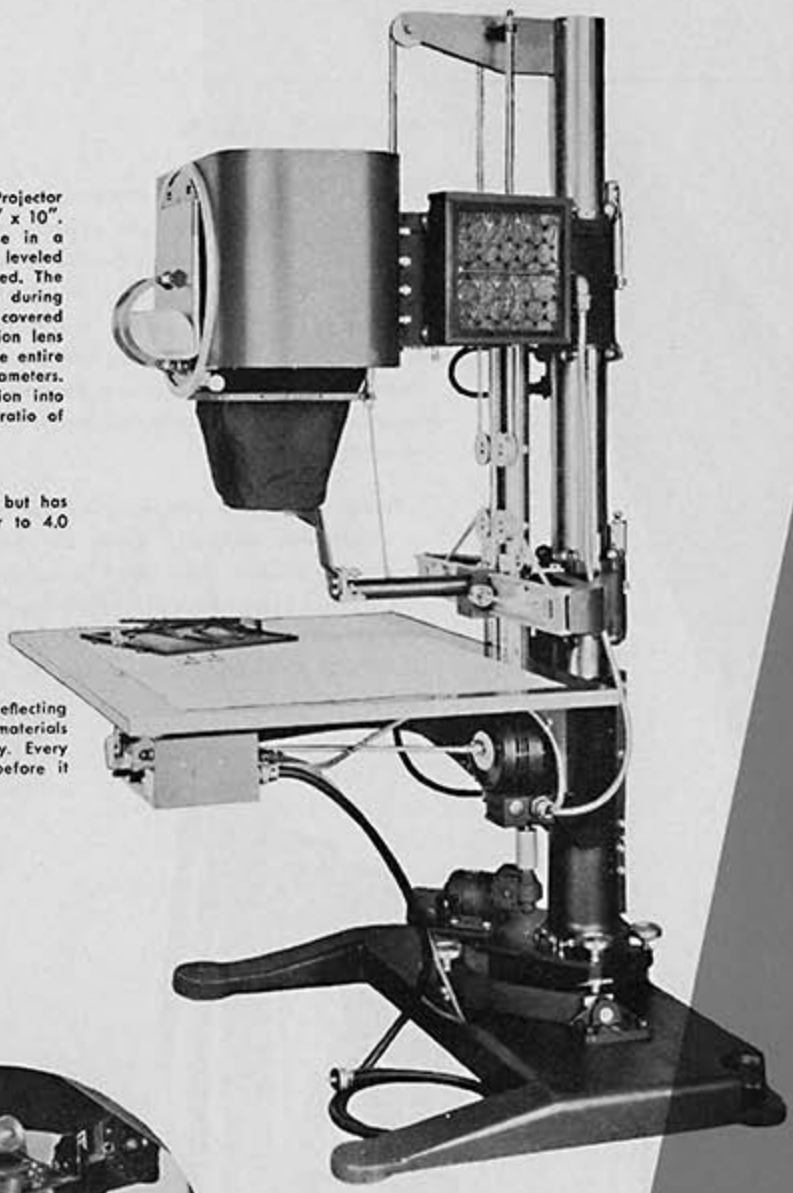
MODEL No. 70, shown at right, is a Vertical Reflecting Projector with automatic focus. It has a capacity up to and including 10" x 10". This model was designed as a portable unit for field use in a van. Mounted in a gimbal arrangement, the projector may be leveled regardless of the position of the floor to which it is fastened. The moving elements have locking devices to prevent damage during transportation. The drawing table is a rigid, stainless steel covered panel 30" x 40" in size. A high grade 7½" f-4.5 projection lens is employed and automatic focus is maintained throughout the entire range of magnification — from .33 diameter to 3.5 diameters. Pointers mounted on a scale divide the range of magnification into increments of .25 diameter. Using these pointers, a desired ratio of magnification may be set rapidly.

MODEL No. 70-A is basically the same as Model No. 70 but has a larger range of magnification, namely from .25 diameter to 4.0 diameters.

Like all other CAESAR - SALTZMAN equipment, the Vertical Reflecting Projectors are sturdily built. Excellent workmanship and materials guarantee the utmost in precision, durability and efficiency. Every instrument is carefully adjusted and thoroughly inspected before it leaves the factory.

●

Do not hesitate to contact us if you need more information than we could furnish in this limited space.



MODEL No. 70-A
Overall height 80".
Table Top 30" x 40" x 29" high.

MODEL No. 70
Overall height 74".

Shorter focal length lenses and cones are available for the Model P-1414-A.

Fig. 55

STUDIO CAMERA STANDS

MODEL 31 S

This extremely sturdy camera is mounted on a 3 wheeled base. The main column is 4″ x 4″ square and is braced by three steel tubes, each running from the top of the stand to the end of a leg of the base. A triple jack controlled by a handwheel permits locking the stand motionless on the floor. All motions pertaining to the camera are closely counterbalanced, and may be securely locked.

Range of camera positions is from floor level to a position vertically above the top cap on the main column. The stand is equipped with our camera head *(Fig. 59)* which can be tipped and tilted and turned in all directions. Lock studs are provided for standard ¼″ and ⅜″ Camera threads.

SPECIAL
Model 51A for heavy weight cameras. Main column 6″ diameter.

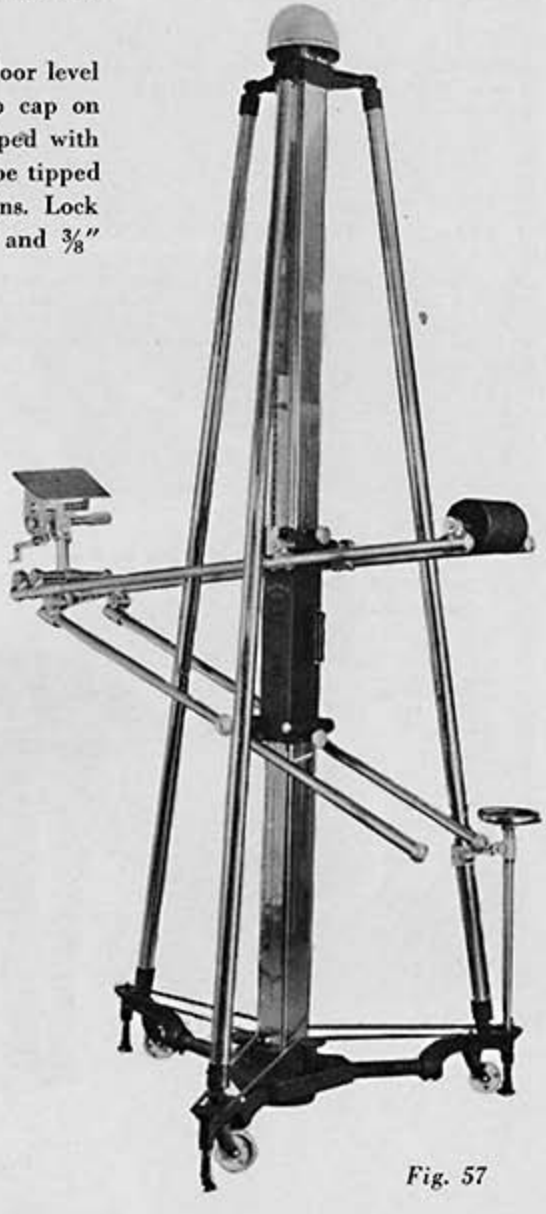


Fig. 57

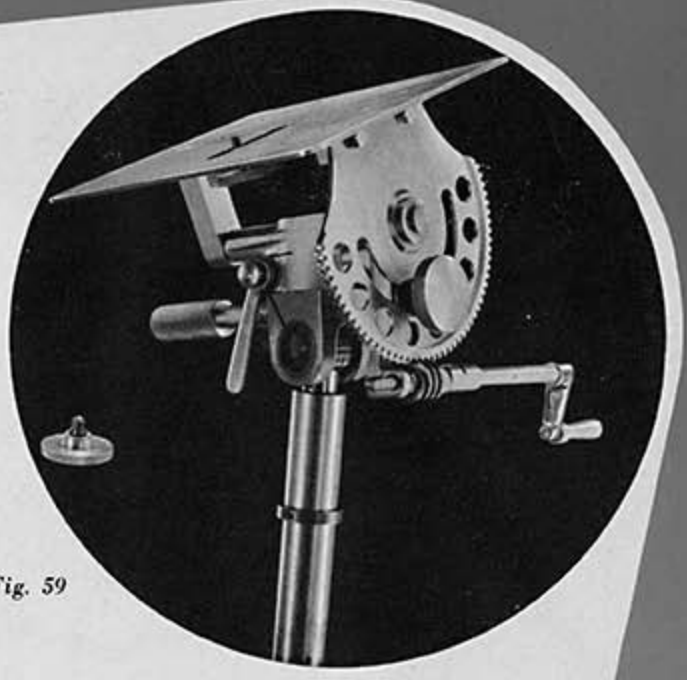


Fig. 59

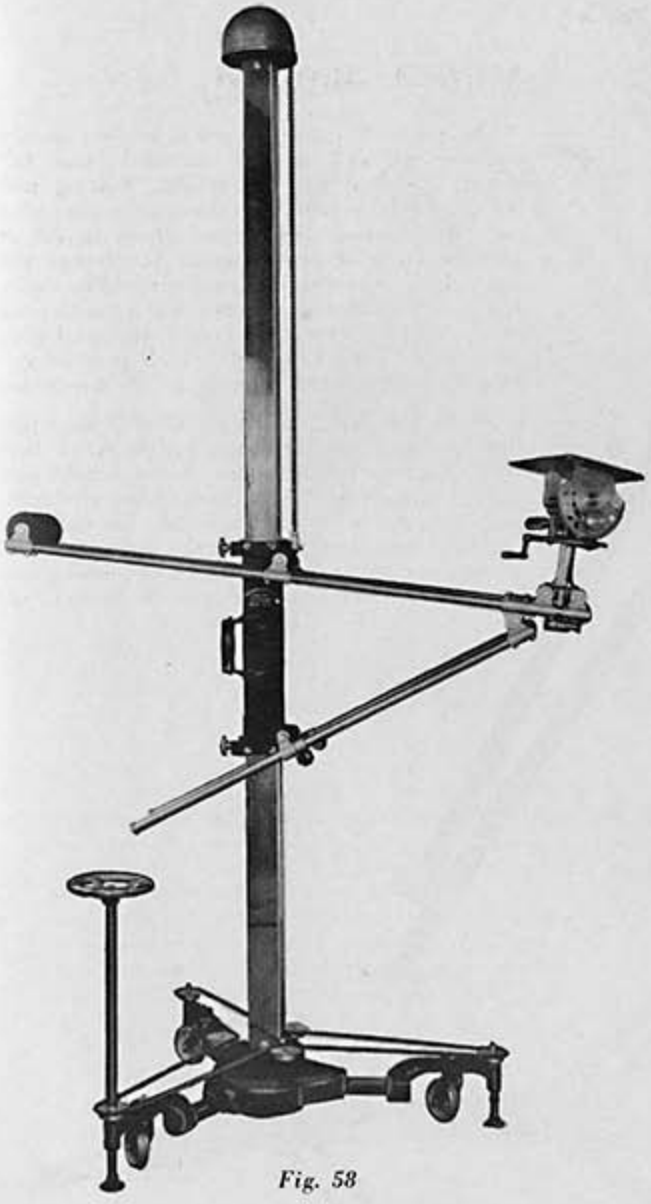


Fig. 58

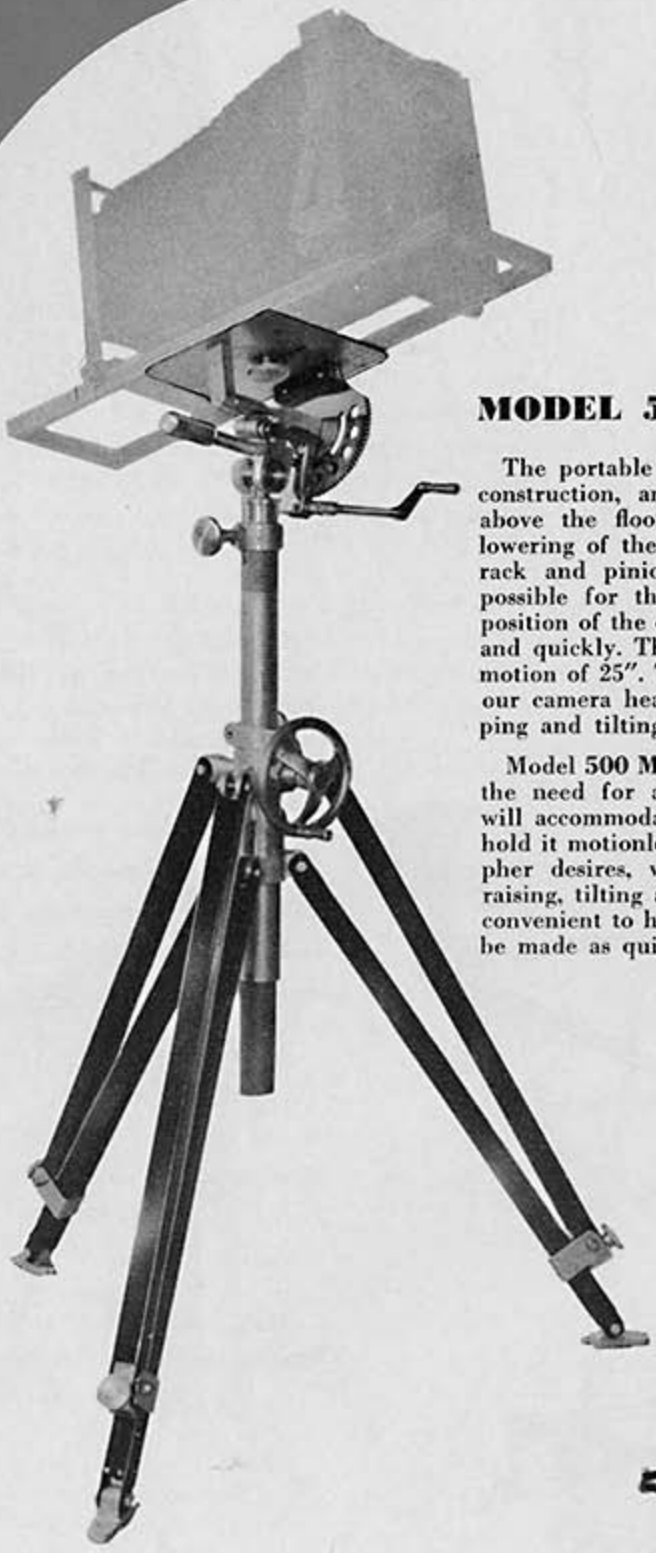
MODEL 30 S

Camera stand is similar to Model 31S, but is of lighter construction throughout. It is suitable for the lighter studio cameras. All motions and positions attainable with Model 31S can be duplicated on Model 30S.

If the overall height of the camera stand, (11 ft. for Model 31 S, 10 ft. for Model 30 S) is too great for your studio, we will make a stand to suit at no extra cost to you. For additional height over the standard an extra charge is made.

Main column is 3″ x 3″ square. Braces similar to 31S may also be furnished.

PORTABLE CAMERA STANDS



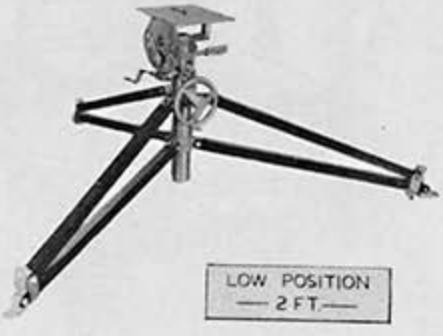


Fig. 60

MODEL 500 MR *(Fig. 60)*

The portable camera stand is of very sturdy construction, and can be extended from 26″ above the floor 8½′ in height. Raising and lowering of the camera is done by means of a rack and pinion mechanism which makes it possible for the photographer to change the position of the camera in these directions easily and quickly. This mechanism has a continuous motion of 25″. This stand comes equipped with our camera head *(Fig. 59)* which permits tipping and tilting and rotating in all directions.

Model **500 MR** Stand with 500 MR head fills the need for an absolutely stable stand that will accommodate a camera of any weight and hold it motionless in any position the photographer desires, when on location. Controls for raising, tilting and swinging the camera are all convenient to hand and changes in position can be made as quickly as they can be thought of.

500 MBT TRIPOD DOLLY and 500 MRA SIDE ARM ATTACHMENT

(Fig. 61)

Illustration shows the 500 MR Camera Stand with the 500 MRA side arm attachment.

This is a valuable addition to the Camera Stand and enables the photographer to bring the camera down to practically floor level or up to 28" with slight adjustments.

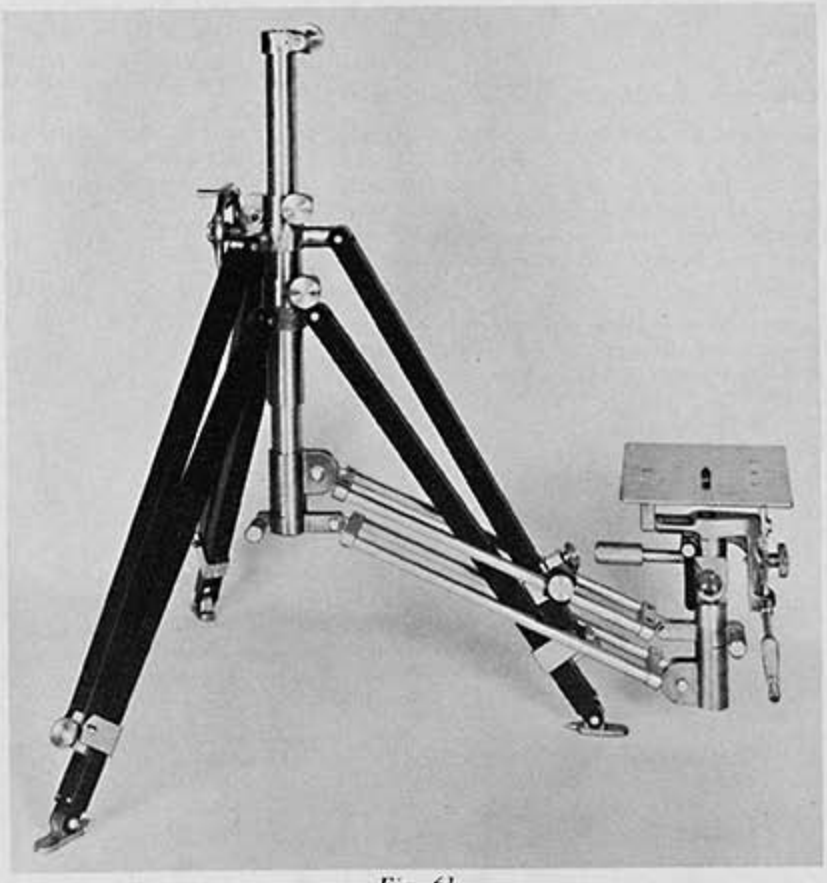


Fig. 61

For anyone who wishes to use the portable camera stand **500 MR** for work inside a studio, we have developed a special base which rests on three roller bearings and permits moving the stand conveniently around the studio. Three locks are provided to hold the base motionless in whatever location it is required. The legs of this base are telescopic in order to accommodate the varying height of the camera stand.

When the photographer is on location and it is necessary to move the camera stand about often on a smooth surface the **500 MBT** Dolly provides the best possible means of doing so.

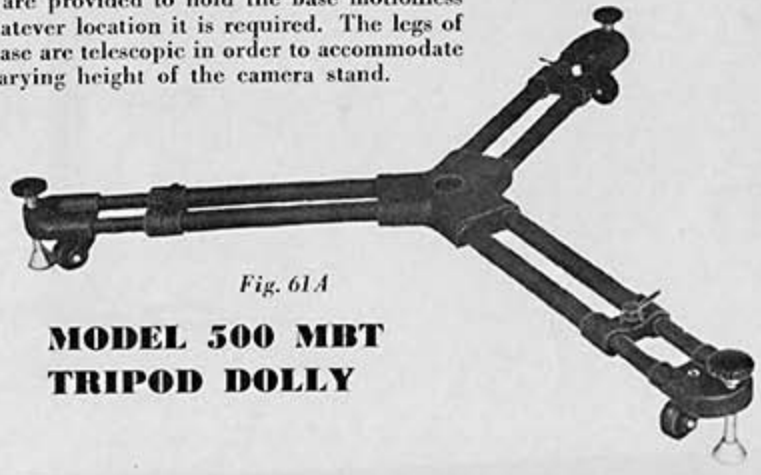


Fig. 61A

MODEL 500 MBT TRIPOD DOLLY

ESTABLISHED 1920

YUkon 6-5920 **J. G. SALTZMAN, INC.** TWining 4-8317

480 LEXINGTON AVENUE, NEW YORK 17, N. Y. • Factory: 66-67 69th STREET, MIDDLE VILLAGE 79, N. Y.

AFFILIATED COMPANIES: CAESAR MFG., INC. • AMERICAN SPEEDLIGHT CORP. • LECTROMAN, INC

NET PROFESSIONAL USER'S PRICES — EFFECTIVE JANUARY 1, 1961

ENLARGERS, 8x10 VERTICAL

LIGHTSOURCES AVAILABLE

(Lens included only when noted)

LIGHTSOURCE MODEL NUMBERS OUTLINED ON OPPOSITE PAGE.

Model No.	43	115G	116B	113	113B	113C	140	140AV	140BV
22 30WA	$ 2,200.00	$ 2,400.00					$ 2,425.00		
144 30WAC	2,775.00	2,975.00		*$ 3,530.00	*$ 3,680.00	*$ 4,980.00	3,000.00	$3,700.00	$4,050.00
23 30WAB	3,265.00	3,465.00					3,490.00	4,190.00	4,540.00
52 30WABC	3,725.00	3,925.00					3,950.00	4,650.00	5,000.00
24 30WAHG	** 3,515.00	***3,715.00					***3,740.00		
14 30WAA	**6,025.00	**6,225.00						**6,950.00	**7,300.00
18A MB6A				*5,100.00			**4,700.00	**5,400.00	**5,750.00
61 MB6D				*5,550.00			**5,150.00	**5,850.00	**6,220.00
61B MB6AA	**7,165.00	**7,365.00	**11,400.00						
61B MB6DA				*7,790.00	*7,940.00	*9,240.00		**8,090.00	**8,440.00
61L MB6DL				*6,075.00	*6,225.00	*7,525.00		*6,425.00	*6,775.00
124 MB6AF			**13,585.00	*10,010.00	*10,160.00	*11,460.00	**9,610.00	**10,310.00	**10,660.00
21 MB6C	**9,000.00	**9,200.00	**13,220.00	*9,625.00	*9,775.00	*11,075.00	**9,225.00	**9,925.00	**10,275.00
64 RP6		**13,375.00	**17,400.00				**13,400.00	**14,100.00	**14,460.00

ENLARGERS, 8x10 HORIZONTAL

(Lens included only when noted)

Model No.	104	115H	116D	113		113D	140	140DV	140CV
94 30WABH	$ 2,915.00	$ 3,115.00		*$ 3,795.00			$ 3,140.00	*$ 4,375.00	*$ 4,725.00
94B 30WABHT	2,560.00	2,760.00		*3,380.00			2,785.00		
94FC 30WABHT	3,090.00	3,290.00		*3,950.00		*$ 5,350.00		*4,515.00	*4,865.00
94D 30WABHTQ			$ 7,500.00						

ENLARGERS, 11x14 HORIZONTAL

(No lens included)

Model No.		115D							
108 30WABH		$ 3,785.00							
108A 30WABHT		4,230.00							

ENLARGERS, 5x7 VERTICAL

(No lens included)

Model No.	27	115-115A		118			119	119A	
29 30W	$ 1,410.00	$ 1,335.00					$ 1,220.00	$ 1,535.00	
30 30WT	1,570.00	1,495.00					1,380.00	1,695.00	
72 30WR	1,500.00	1,425.00					1,310.00	1,625.00	
82 30WRT	1,660.00	1,585.00					1,470.00	1,785.00	
72A 30WRC				$ 2,195.00					

NOTE: *Price includes a 12" lens **Price includes a 10¾" lens ***Enlarger can be also used horizontally.

Special Enlarger prices quoted upon receipt of specifications.

VERTICAL REFLECTING PROJECTORS

Model #20, P1414A $4,400.00

Model #70 or #70A, Autofocus $5,500.00

ACCESSORIES FOR P1414A PROJECTOR

Metal Table with Jacks	$ 200.00	7½" Lens and 13" Cone for .125X reductions	$185.00
Restitutional Easel	1,000.00	5½" Lens for .100X reductions	54.00

All Quotations are Net, F.O.B. Our Plant, Middle Village, N. Y. Packing cases for enlargers and projectors, except MB6C and RP6 series, to be returned to our plant, charges prepaid by customer. When ordering enlargers, specify if for AC or DC. On all equipment, please furnish maximum working ceiling height of studio or darkroom, free of obstructions. All Quotations subject to change without previous notice. Equipment will be billed at prices prevailing at time of shipment. Export prices on application.

YUkon 6-5920 **J. G. SALTZMAN, INC.** TWining 4-8317

ESTABLISHED 1920

480 LEXINGTON AVENUE, NEW YORK 17, N. Y. • Factory: 66-67 69th STREET, MIDDLE VILLAGE 79, N. Y.

AFFILIATED COMPANIES: CAESAR MFG., INC. • AMERICAN SPEEDLIGHT CORP. • LECTROMAN, INC.

LIGHTSOURCES FOR 8x10 VERTICAL ENLARGERS, TO BE USED WITH SHUTTER, FOR BLACK AND WHITE WORK ONLY

Model 43	Cooper-Hewitt Mercury Vapor	500W	7100°K	$ 300.00
Model 115G	Cold Cathode Varilight and Blower	350W	8000°K	500.00
Model 116B	High Intensity Mercury Vapor Quartz	4500W	8000°K	4,500.00

LIGHTSOURCES FOR 8x10 VERTICAL ENLARGERS, NO SHUTTER REQUIRED, FOR COLOR OR BLACK AND WHITE WORK

Model 113	Incandescent with pair of 14" condensers and #302 enlarging bulb for diffused light	500W	3200°K	700.00
Model 113B	Incandescent with pair of 14" condensers and #302 enlarging bulb for diffused light, or 500-1000W projection bulb for point source of light	500-1000W	3200°K	850.00
Model 113C	Diffused Xenon pulsed arc with blower, four 3" Xenon tubes, 14" condensers or #302 enlarging bulb. Cabinet with circuit stabilizer, time delay circuit for shutter and Microflex timer	500-1200W	5400°K	2,050.00
Model 140	Diffused incandescent with blower, 29 bulbs controlled by 4 switches	2460W	2800°K	600.00
Model 140AV	Diffused incandescent with larger blower, 29 bulbs controlled by 4 switches, cabinet with stepup transformer, variac and voltmeter	2460-4000W	3200°K	1,300.00
Model 140BV	Diffused incandescent with larger blower, 29 bulbs controlled by 29 switches in a cabinet with stepup transformer, variac and voltmeter	2460-4000W	3200°K	1,650.00

LIGHTSOURCES FOR 8x10 HORIZONTAL ENLARGERS, TO BE USED WITH SHUTTER, FOR BLACK AND WHITE WORK ONLY

Model 104	Cooper-Hewitt Mercury Vapor	500W	7100°K	300.00
Model 115H	Cold Cathode Varilight and Blower	350W	8000°K	500.00
Model 116D	High Intensity Mercury Vapor Quartz	4500W	8000°K	4,500.00

LIGHTSOURCES FOR 8x10 HORIZONTAL ENLARGERS, NO SHUTTER REQUIRED, FOR COLOR OR BLACK AND WHITE WORK

Model 113	Incandescent with pair of 14" condensers and a #302 enlarging bulb	500W	3200°K	800.00
Model 113C	Diffused Xenon pulsed arc with blower, four 3" Xenon tubes, 14" condensers or #302 enlarging bulb. Circuit stabilizer, time delay circuit for shutter and Microflex timer	500-1200W	5400°K	2,100.00
Model 140	Diffused incandescent with blower, 29 bulbs controlled by 4 switches	2460W	2800°K	600.00
Model 140CV	Diffused incandescent with larger blower, 29 bulbs controlled by 29 switches, stepup transformer, variac and voltmeter	2460-4000W	3200°K	1,875.00
Model 140DV	Diffused Incandescent with larger blower, 29 bulbs controlled by 4 switches, stepup transformer, variac and voltmeter	2460-4000W	3200°K	1,525.00

LIGHTSOURCES FOR 5x7 ENLARGERS, SHUTTER REQUIRED, FOR BLACK AND WHITE WORK ONLY

Model 27	Cooper-Hewitt Mercury Vapor	500W	7100°K	300.00
Model 115	Cold Cathode Varilight for Model #30 (30WT) or #29 (30W)	250W	8000°K	225.00
Model 115A	Cold Cathode Varilight for Model #72 (30WR) or #82 (30WRT)	250W	8000°K	225.00

LIGHTSOURCES FOR 5x7 ENLARGERS, NO SHUTTER REQUIRED, FOR COLOR OR BLACK AND WHITE WORK

Model 118	Incandescent using a pair of 12" condensers and a #302 enlarging bulb	500W	3200°K	515.00
Model 119	Diffused incandescent using one #302 enlarging bulb	500W	3200°K	185.00
Model 119A	Diffused incandescent using A13 or 212 bulb, ellipton reflector	250W	3200°K	500.00

LIGHTSOURCES FOR 11x14 ENLARGERS

Model 115D	Cold Cathode Varilight and blower for black and white only, shutter required, for horizontal or vertical enlargers	500W	8000°K	675.00
Model 140EV	Diffused incandescent with a larger blower, 29 bulbs controlled by 29 switches in a cabinet with stepup transformer, variac and voltmeter for color work, no shutter required, for vertical enlargers only	2460-4200W	3200°K	1,750.00

NOTE: A 12" lens must be used with pair of 14" condensers for enlarging. A 9½" lens must be used with pair of 12" condensers. For conversion from your present light source to any of the above, add $50.00 for additional counterbalancing required. Ascorlux Xenon, Speedlight, Zirconium, LogEtronics and special lightsource prices quoted on request. High Intensity Mercury Vapor Quartz Lightsources prices do not include supervision of installation.