

PARTS LIST
AND
INSTRUCTION BOOK

The

Peerless
MAGNARC

TRADE MARK REG.

HIGH INTENSITY REFLECTOR ARC LAMP

—MFD BY—

J. E. MCAULEY MFG. CO.

552-554 W. ADAMS STREET

CHICAGO, ILL., U. S. A.

2ND EDITION
SECOND
EDITION

PRINTED
IN
U.S.A.

Telegraphic and Cable Code

Code Word

MANER: One Magnarc with 5 M/M x 6 M/M Holders

MARET: One Magnarc with 6 M/M x 7 M/M Holders

MARSH: One Magnarc with 6.5 M/M x 8 M/M Holders

MAPES: One Magnarc with 7 M/M x 8 M/M Holders

MASTO: One Magnarc with 7 M/M x 9 M/M Holders

MATIN: One Magnarc with 5 M/M x 6 M/M Holders and Ammeter

MAXIM: One Magnarc with 6 M/M x 7 M/M Holders and Ammeter

MEATY: One Magnarc with 6.5 M/M x 8 M/M Holders and Ammeter

MEDIC: One Magnarc with 7 M/M x 8 M/M Holders and Ammeter

METOR: One Magnarc with 7 M/M x 9 M/M Holders and Ammeter

INDEX

INSTRUCTIONS

	Page
Operating Instruction Plates.....	2 to 6
Electrical Connections to Current Supply.....	7
To Insert Reflector In Reflector Drum.....	8
Arc Control Motor Connections.....	8
To Connect Lamphouse Pilot Light.....	8
Floating Carbon Principle Explained.....	8
To Trim Positive Carbon.....	9
To Trim Negative Carbon.....	9
Arc Voltage and Amperage.....	9
Reflector to Aperture Distance.....	9
Focusing Arc Imager On Indicator Card.....	10
To Determine Proper Distance from Reflector to Positive Carbon Crater.....	10
To Adjust Rate of Feed of Positive and Negative Carbon.....	11
To Adjust Negative Carbon Feed.....	11
Lamphouse Ventilation.....	11
Care and Adjustment of Positive Carbon Guide.....	12
Adjustment of Negative Carbon Guide.....	12
To Align Carbons.....	13

Page

To Remove Negative Carbon Assembly.....	13
Adjusting Negative Friction Clutch.....	13
To Remove Entire Positive Sub-base Assembly from Lamphouse.....	14
To Remove Arc Control Motor and Drive Gear Assembly.....	14
Dowser Operation.....	14
Function of Arc Stabilizing Magnet.....	15
Cleaning Reflector.....	15
Cleaning Lamphouse.....	15
Formation of Carbide Tips on Negative.....	15
Lubrication.....	16
Carbon Holder Sizes.....	16
Carbon Combination Tables.....	16

REPAIR PARTS

Order Information.....	17
Drawings of Parts.....	18 to 29
Parts List.....	30 to 36
Assembled Parts List.....	37 to 39
Lamphouse Adapters.....	39

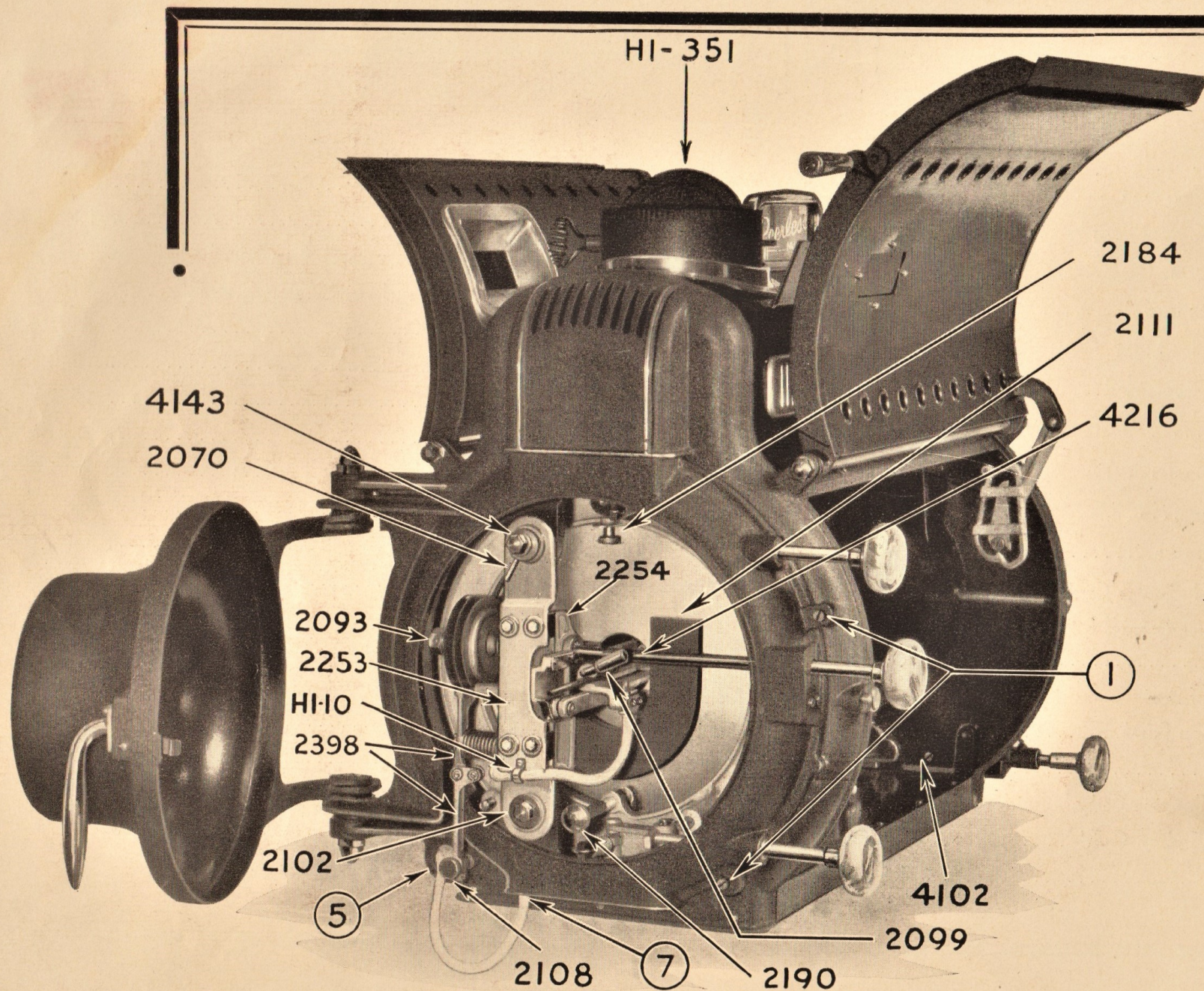


PLATE "A"

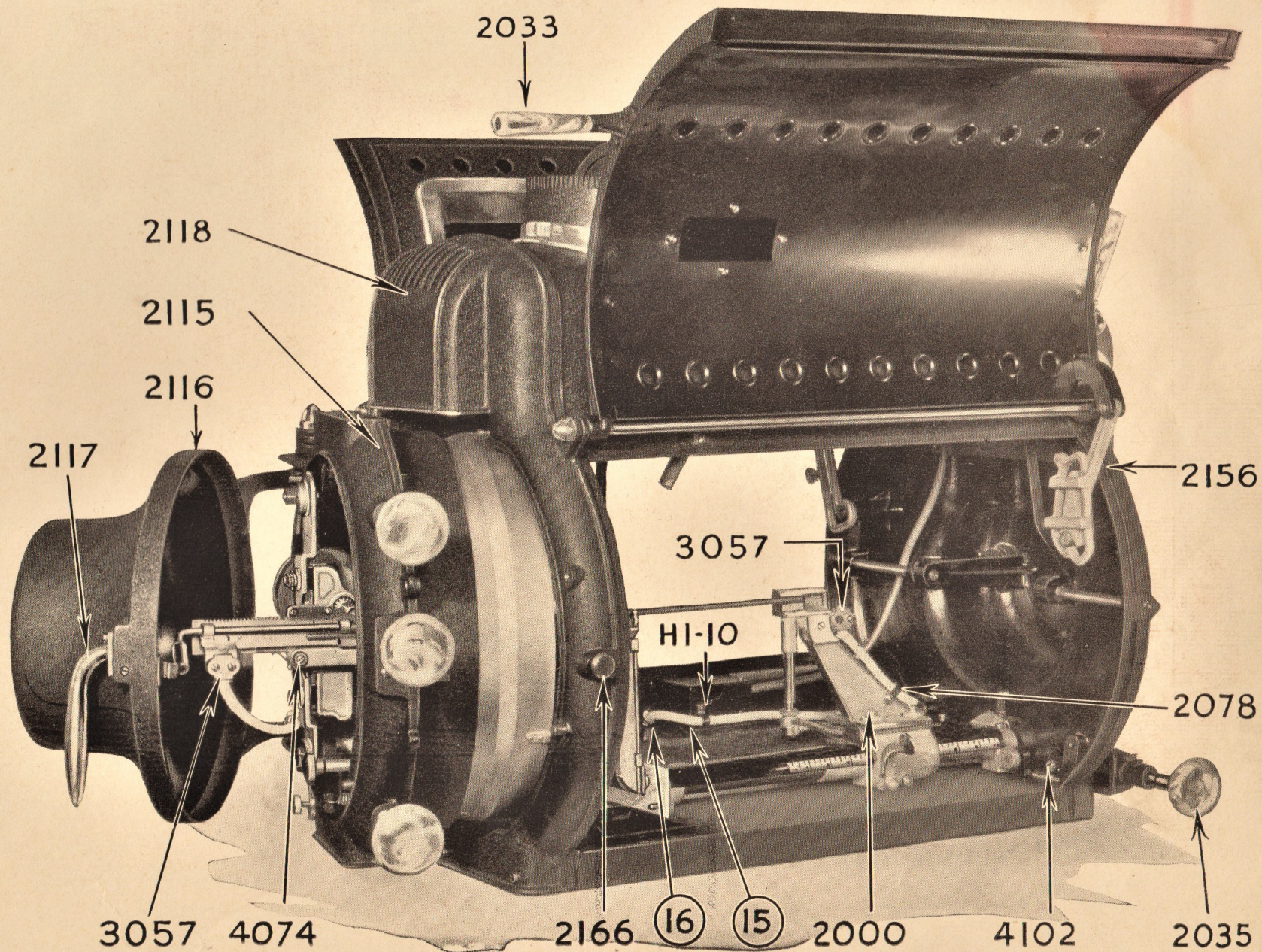
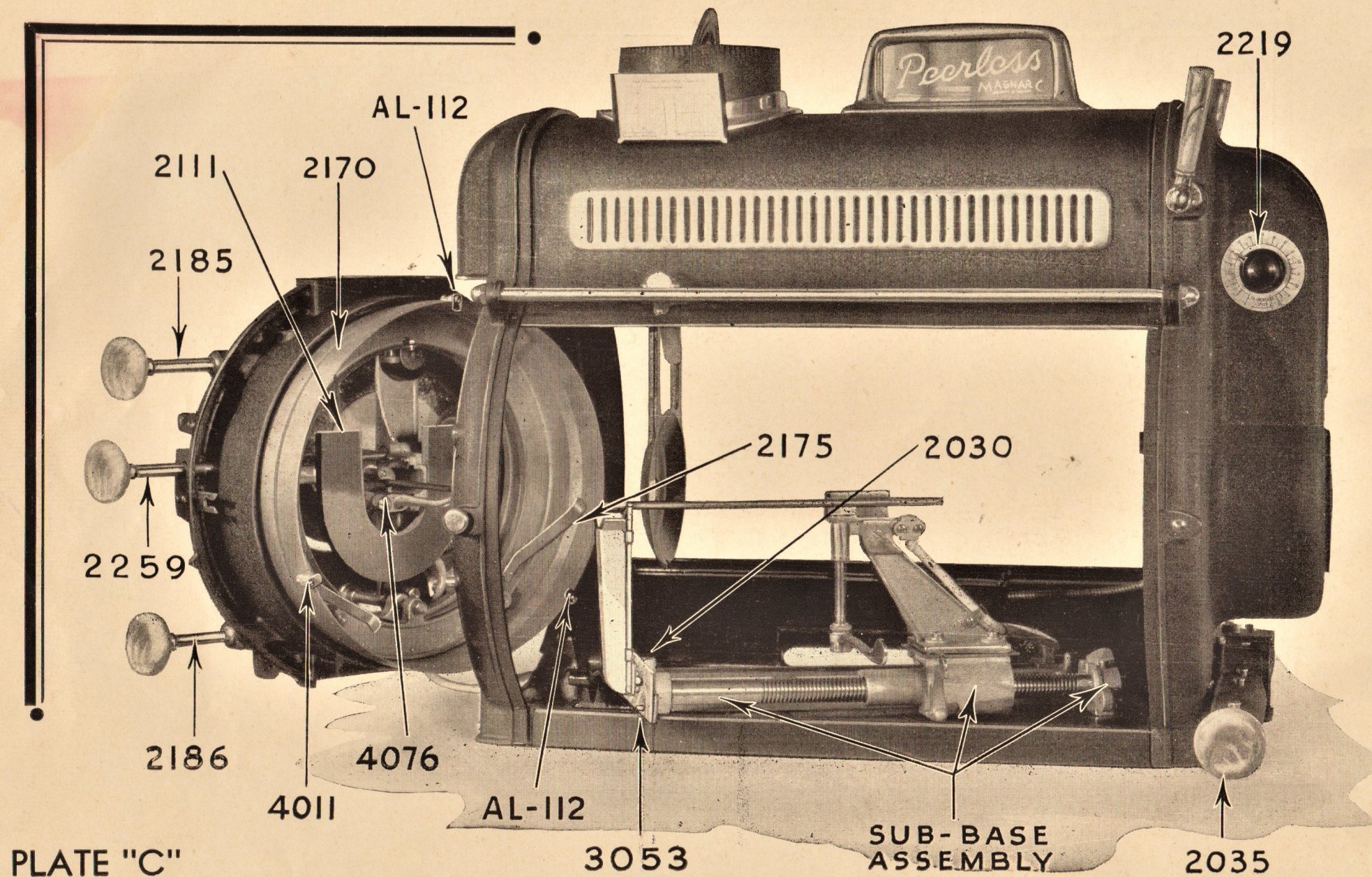


PLATE "B"



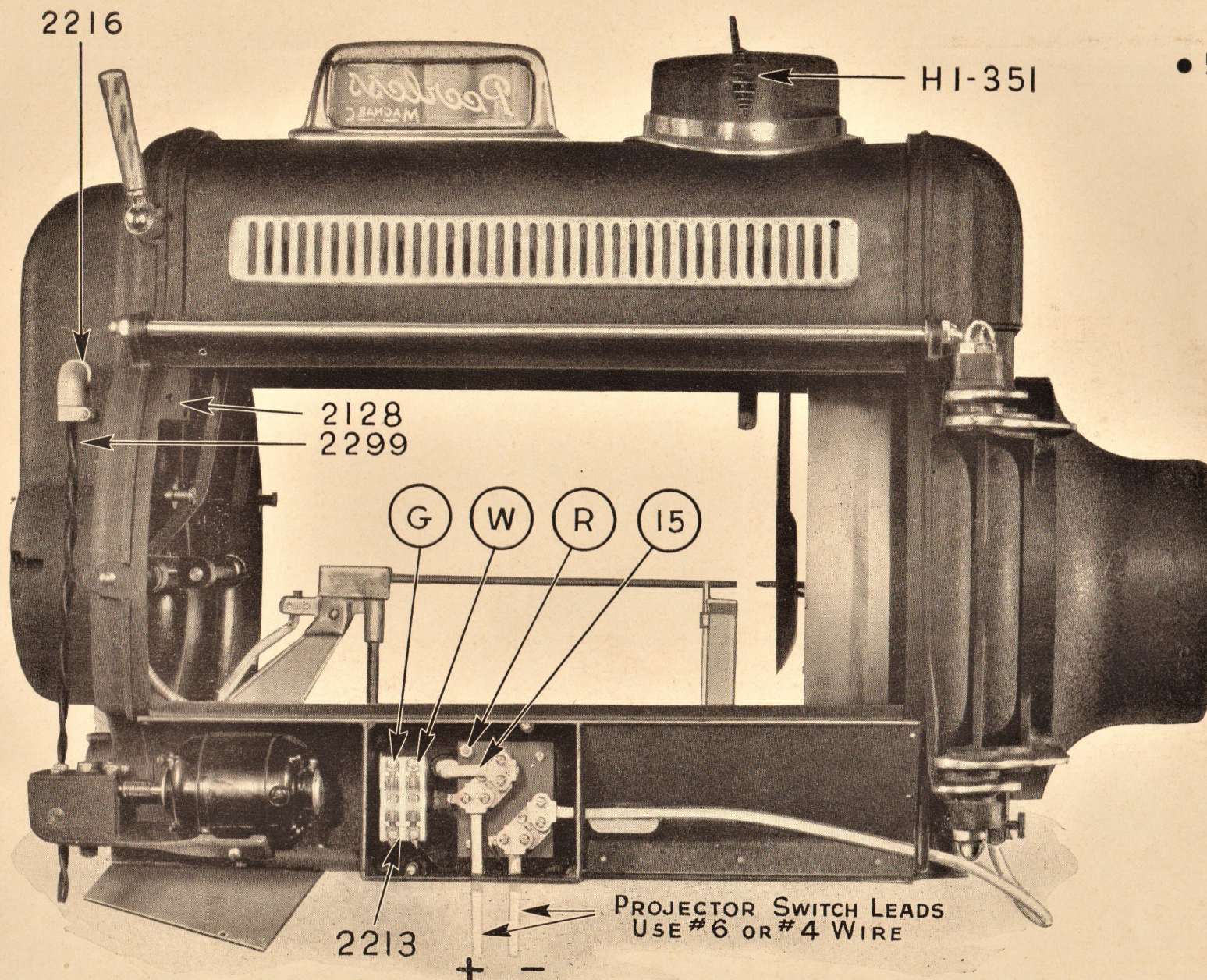


PLATE "D"

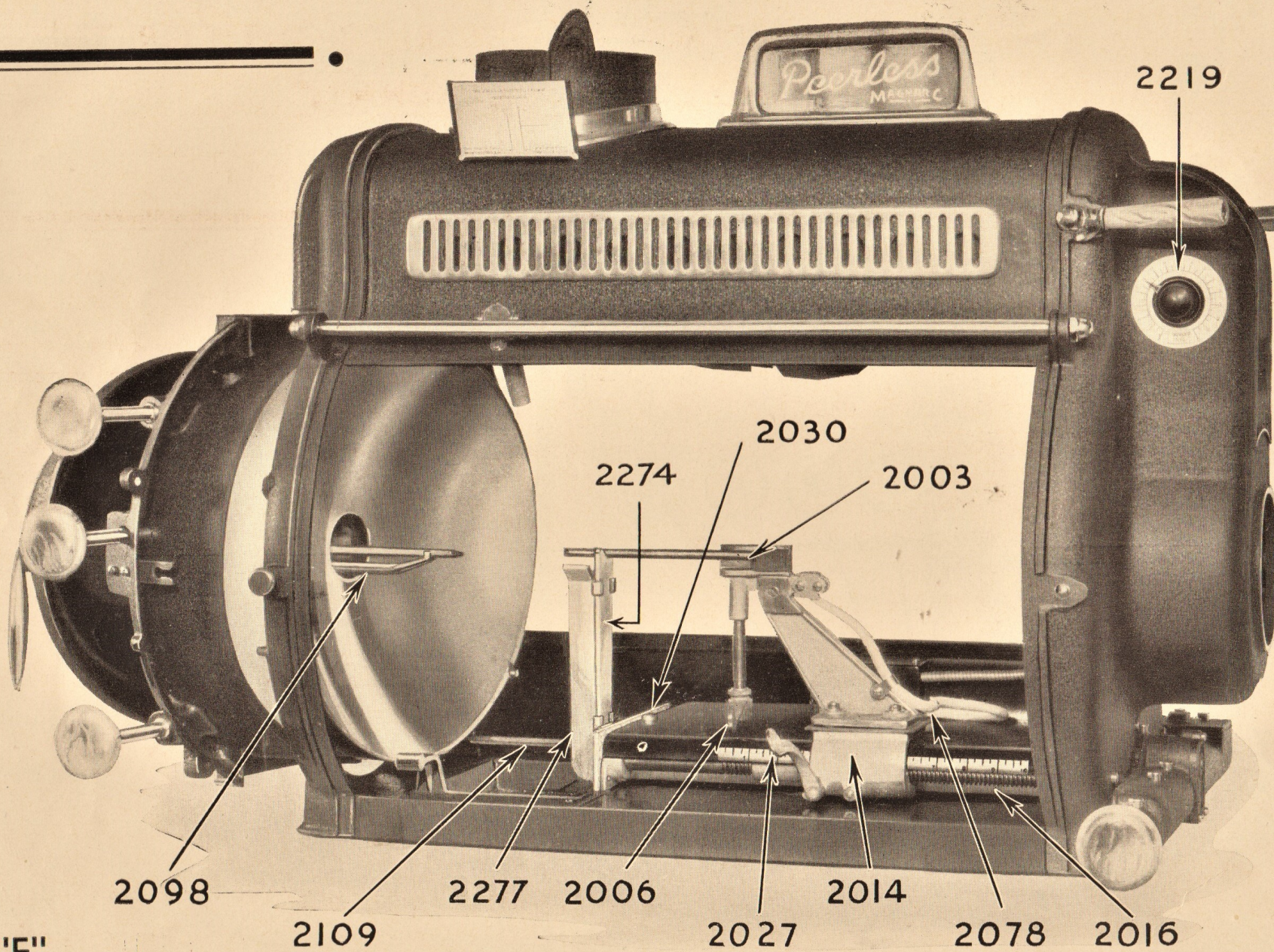


PLATE "E"

CARE AND OPERATING INSTRUCTIONS FOR THE

Peerless **MAGNARC**

HIGH INTENSITY LAMP

OPENING SHIPPING CASES.

Unpack the PEERLESS MAGNARC High Intensity Lamp, first removing the cleats that retain the lamp in the shipping cases and place lamphouse on the projector pedestal, being sure to clamp it firmly to the projector pedestal by means of thumb screws through the pedestal table before opening any of the rear doors of the lamphouse.

When the lamphouse is screwed to the pedestal remove the screws shown as No. 1 in plate "A." These screws, which retain door No. 2115 to the lamphouse rear casting No. 2118, plate "B," may then be discarded as they are only used for shipping purposes. Rear door No. 2116 plate "B" is opened by pulling backward on handle No. 2117. The negative carbon and reflector assemblies are then exposed to view.

ELECTRICAL CONNECTIONS TO CURRENT SUPPLY

All electrical connections between the main terminal block and the carbon holders are made at the factory. It therefore only remains that the main terminals be connected to the current supply circuit.

Two five foot lengths of No. 4 or No. 6 Extra Flexible asbestos covered wire are generally required for the leads indicated as + and - on Plate "D" page five.

—CAUTION—

Reflector door No. 2115 plate "B," may be opened by pushing in on door release button No. 2166 plate "B."

This door should **not** be opened until the lamphouse is securely fastened to the projector table as its weight may cause the lamphouse to over-balance.

TO INSERT REFLECTOR IN REFLECTOR DRUM.

Next unscrew screw No. 4011 plate "C," and remove the reflector retaining clip. Holding the reflector at a slight angle, pass the hole in the reflector over the negative guide No. 2098, plate "E," and under the two other reflector retaining clips No. AL-112. Then push inward on the reflector until its outer rim is back of the front edge of reflector drum No. 2170 plate "C," and replace screw No. 4011 and its clip. Next push forward on the rear of the reflector to make sure that the outer edge is touching all three retaining clips No. AL-112.

ARC CONTROL MOTOR CONNECTIONS

All Electrical Connections to the Arc Control Motor Circuit are made at the factory. Should it ever become necessary to remove the motor, it should be disconnected at terminal indicated as "G," "W," and "R," on Plate "D."

Note—See further instructions on page fourteen.

TO CONNECT LAMPHOUSE PILOT LIGHT.

All electrical connections to the pilot light and switch inside of the lamphouse have been made at the factory. It is therefore only required that the leads No. 2299 Plate "D" be enclosed in a length of flexible conduit and connected to a current supply. This may often be found at the projector motor switch or at some convenient light outlet in the projection room. After making this connection, insert an incandescent lamp.

FLOATING CARBON PRINCIPAL EXPLAINED.

An important and essential feature in the unique construction of the PEERLESS MAGNARC is the method employed to insure continuous and correct alignment of the positive and negative carbons, which consist in providing "Floating" carbon clamps and rigid carbon guides near the arcing end of each carbon.

The function of the carbon guides shown as No. 2274 and No. 2011 plate "E," is to accurately locate the ends of the carbons in respect to each other thus insuring proper crater formation. Since the positive and negative carbon clamps "float" in their respective supports, even badly warped or crooked carbons will burn perfectly in this lamp.

TO TRIM POSITIVE CARBONS.

Throw friction release lever No. 2027 plate "E" clockwise and slide the entire positive carbon carriage No. 2014 plate "E," toward the front of the lamp. Relock carriage by throwing lever No. 2027 toward the rear of the lamphouse. This locks a gear on carriage No. 2014 plate "E," to the threads of the positive acme feed screw No. 2016 plate "E."

Next turn positive carbon clamp lever No. 2006 plate "E," toward the reflector so that positive carbon clamp shoe No. 2003 plate "E," is low enough to permit insertion of the positive carbon. Next place the pointed end of the carbon in the "V" slot in positive carbon guide No. 2274 plate "E" with its pointed arcing end in the same vertical plane as the front edge of positive carbon guide chute No. 2277 and clamp the carbon by rotating lever No. 2006 plate "E," toward the front of the lamphouse.

TO TRIM NEGATIVE CARBONS.

At the option of the projectionist the negative carbon may be trimmed with door No. 2115 closed, as shown on plate "A" or with it open as shown in plate "E."

To insert the negative carbons, move the negative carbon clamp to its rearmost position and raise negative carbon clamp lever No. 2099 plate "A" and insert the carbon into the side of the carbon clamp, pushing the carbon forward through negative carbon guide No. 2098 plate "E," until the end of the negative carbon projects approximately $1\frac{3}{8}$ " beyond the front end of the carbon guide and clamp in that position.

ARC VOLTAGE AND AMPERAGE.

The PEERLESS MAGNARC is designed to operate at the currents shown on the tables which will be found on Page 16, with a voltage drop across the arc of 31 to 40 volts. As a consequence this lamp may be operated with any multiple arc type motor generator or on 110 volt direct current service or with a rectifier, providing the current capacity of the rectifiers or motor generator is sufficient for the minimum current rating of the carbons to be used in each lamp.

Low voltage motor generators and rectifiers having voltage outputs of from 31 to 40 volts are available for use with this arc. These lamps may also be operated from higher voltage generators if proper ballast rheostats are inserted in the circuit to reduce the generator output voltage to that required at the arc.

REFLECTOR TO APERTURE DISTANCE.

The operating distance from the rear surface of the reflector when measured through the hole in its center to the projector aperture should be approximately 34". To accomplish this, slide the entire lamphouse forward or back until the reflector-aperture distance is approximately 34" as mentioned above.

To obtain this dimension it may be necessary on certain projectors using rear shutters to remove and discard the small metal light cones mounted on the rear half of the projector shutter housing. It should be understood that it is not imperative that the lamp be operated at this specific 34" dimension and a slight variation of this recommended operating distance will not visibly affect the screen illumination.

When the lamphouse is at the proper distance, securely clamp it to the projector pedestal table. Care should be taken that the optical axis of the PEERLESS MAGNARC is also centered laterally with the projector aperture by means of the adjustments provided on the projector pedestal table.

The arc is then ready to be struck.

FOCUSING ARC IMAGER ON INDICATOR CARD.

Close the projector knife switch and by turning knob No. 2259 plate "C," strike the arc and separate the carbons about $\frac{1}{4}$ ". After crater has formed, push inward on positive carbon knob No. 2035, plate "B," and manually adjust the positive carbon until its crater face is in the same vertical plane as the front edge of carbon guide chute No. 2277 plate "E." Observe whether the projected image of the carbons are in the approximate center of the card. If not, loosen the mirror swivel screw and adjust mirror. Retighten screw after adjustment to hold mirror at the correct angle. Observe whether the projected image of the positive carbon coincides with the vertical line marked "positive" on the arc feed indicator card. If it does not, the image may be placed on the line by slightly loosening the three upper screws that hold the arc image lens assembly to the lamphouse top and rotate the assembly clockwise or counter-clockwise around its axis, and retighten the three mounting screws. Before making this adjustment, see that the positive carbon crater itself is in the correct position,—namely in the same vertical plane as the front edge of the carbon guide chute No. 2277 plate "E." The negative carbon should then be adjusted by hand until the image of its face coincides with the vertical line marked "Negative" on the card.

For satisfactory operation of the arc control it is essential that the image of the ends of the positive and negative carbons be carried exactly on these lines.

TO DETERMINE PROPER DISTANCE FROM REFLECTOR TO POSITIVE CARBON CRATER.

As there may be a slight difference in the focal length of reflectors, a reflector focusing adjustment is provided to permit moving the reflector to or from the arc.

To accomplish this adjustment, center the spot on the aperture by means of reflector adjusting handles Nos. 2185 and 2186 plate "C." Handle No. 2185 moves the spot at the aperture laterally and No. 2186 moves the spot up and down.

With the carbon images in register with their respective lines on the arc image indicator card and without film in the mechanism, open the automatic fire shutter on the projector mechanism and project a blank light on the screen, obtaining by means of handles No. 2185 and No. 2186 plate "C," as clear a field as possible. Next open door No. 2116 plate "B," and loosen knurled screw No. 2184 plate "A." By means of screw No. 2190 plate "A," move the reflector forward or back until maximum illumination is had on the screen and then securely tighten screw No. 2184 and also the lock nut on focusing screw No. 2190 which will clamp the reflector holder in position.

TO ADJUST RATE OF FEED OF POSITIVE CARBON.

Knob No. 2219 plate "C," controls a rheostat which is connected in the field circuit of the arc control motor. The speed of this motor determines the rate of feed of both carbons. Since the arc control motor is connected across (in multiple with) the arc, its speed is determined by the voltage of the arc. It is, therefore, essential that the arc gap shown on the arc feed indicator card be constantly maintained. By means of knob No. 2219 plate "C," and "E", the speed of the motor may be increased or decreased until the image of the positive carbon crater is constantly held in register with its line on the arc feed indicator card.

IMPORTANT

If it is found that the negative carbon is not maintaining its position during the adjustment of the positive feed, it is essential to maintain its correct position by hand.

TO ADJUST NEGATIVE CARBON FEED.

Screw No. 2108 plate "A," regulates the rate of feed of the negative carbon. By screwing in (clockwise) on this screw the stroke of the feed lever No. 2398 plate "A" is increased and a greater length of negative carbon is moved forward at each stroke and, conversely, by unscrewing the screw the amount of negative carbon fed at each stroke is decreased. Observing the image of the negative carbon on the arc feed indicator card, increase or decrease the rate of negative feed by means of screw No. 2108 plate "A" until the image of the negative carbon maintains its position on the line marked "Negative" on the arc feed indicator card.

LAMPHOUSE VENTILATION.

The PEERLESS MAGNARC operates at relatively low arc voltage and precautions should be taken to guard against air drafts which will disturb the arc. If forced draft is employed in the vent pipes that carry off the arc gases, lamphouse damper No. Hl-351 plate "D" and "A" should be closed to that point where no disturbance occurs.

It should be borne in mind, however, that in order to keep the temperature inside the lamphouse as low as possible, this ventilation should not be completely choked. A good general rule to follow is to open the damper as wide as possible without draft disturbance to the arc.

A 6" chimney is provided on the PEERLESS MAGNARC and all additional piping in the booth should be 6" or larger if proper ventilation is to be had. Where forced ventilation is not employed, care should be taken that no down drafts occurs, as they cause equal disturbance to the arc.

Excessive drafts through the port holes in the projection room should be avoided. They should be covered with glass if sufficient draft comes through them and into the lamphouse to disturb the arc.

Certain projector mechanisms are equipped with rear shutters that are fitted with a small fan blade which is mounted on the back of the shutter blade for the purpose of cooling the mechanism and film. Consequently, when the projector is running, an eddy of air current is often created which may disturb the arc, and if this is found to be objectionable, the fan blades should be taken off of the shutter blades.

CARE AND ADJUSTMENT OF POSITIVE CARBON GUIDE.

Carbon guides Nos. 2098 and 2274 plate "E," should be given occasional attention.

Should the positive carbon guide No. 2274, Plate "E," at any time become burned or require replacement, it may be taken out by removing the sliding chute No. 2277, Plate "E," and unscrewing its retainer screw No. 2278 which holds it to the support casting No. 2276.

Should it become necessary to remove the guide support casting No. 2276, care should be taken when replacing same to see that the positive carbon, when in the guide slot, is in lateral alignment with the negative carbon before tightening the screws at its base.

ADJUSTMENT OF NEGATIVE CARBON GUIDE.

The negative carbon guide No. 2098 may be taken out by removing screw No. 4074 plate "B," and screw No. 4076 plate "C."

Care should be taken to see that the end of the negative carbon is supported by the "V" slot at the end of negative guide No. 2098 plate "E," rather than by the rack gear to which the negative carbon clamp is mounted. This may be determined by inserting a short carbon in the carbon holder and upon moving the carbon holder forward make sure that the carbon lifts up slightly upon entering the "V" slot at the end of the carbon guide. If the carbon does not rest in the "V" slot, slightly loosen screws No. 4074 plate "B," and No. 4076 plate "C," and raise the guide until the carbon rests in the "V" groove at the front end of the guide.

This guide should not be raised so high as to remove all vertical play between the "V" groove and negative carbon, as the carbon should float, with the "V" groove its only guidance.

TO ALIGN CARBONS.

The most satisfactory positive crater is a flat crater whose face is at right angles to the center axis of the carbon.

If the positive crater persists to burn with an angular crater face it indicates that the negative carbon axis is not in correct relation to the positive carbon.

To correct this condition an adjustment is provided whereby the entire negative carbon feed assembly may be raised, lowered or moved sideways in relation to the positive carbon.

Lateral adjustment procedure is as follows:

Loosen nut No. 4143 and No. 2102 Plate "A." The lower stud on which nut No. 2102 fits, passes through a large hole in casting No. 2081 plate "A," which permits moving the lower end of casting No. 2081 sidewise.

Vertical adjustment procedure is as follows:

Note that the upper nut No. 4143, when tightened, clamps an eccentric sleeve shown as No. 2070 on plate "A." With nuts Nos. 4143 and 2102 plate "A," slightly loosened, it is possible to rotate this eccentric sleeve, around the nut stud, by its handle. The rotating of this sleeve will move the entire negative assembly up or down and thereby accomplish vertical adjustment of the Negative Carbon.

Both clamping nuts Nos. 4143 and 2102 should be securely retightened after making the above alignment adjustment.

TO REMOVE NEGATIVE CARBON ASSEMBLY.

The entire negative carbon assembly may be removed from the PEERLESS MAGNARC by removing nuts Nos. 4143 and 2102, plate "A" and removing the universal joint taper pin No. 4216 plate "A."

ADJUSTING NEGATIVE FRICTION CLUTCH.

An adjustable friction clutch is provided on the negative carbon feed, the tension of which may be increased or decreased by tightening or loosening nut No. 2093, plate "A." This nut is locked in position by a small set screw. Upon loosening this set screw the nut No. 2093 may be screwed in or out to tighten or loosen the friction clutch until the desired degree of tension is had.

For ease in rapid arc striking, this tension should not be excessive and only sufficient to insure positive feed of the negative carbon.

TO REMOVE ENTIRE POSITIVE SUB-BASE ASSEMBLY FROM LAMPHOUSE.

The entire positive sub-base assembly as shown in plate "C," may be removed from the lamphouse by removing negative push rod No. 2109 plate "E," which is accomplished by first removing the cotter pin that retains it and pulling the push rod out through the rear of the lamphouse after first opening reflector door No. 2115 plate "B."

Next remove screw No. 2030 plate "C" and "E." Disconnect the positive asbestos wire from the positive carbon clamp terminal. The entire burner assembly may then be slid toward the reflector and disengaged from its locating dowel pins in the front of the lamphouse base casting and taken out of the lamphouse.

TO REMOVE ARC CONTROL MOTOR AND DRIVE GEAR ASSEMBLY.

The arc feed motor together with the entire gear housing assembly upon which it is mounted may readily be removed from the PEERLESS MAGNARC by first disconnecting the three colored motor lead wires, R, W, and G., attached to fuse block No. 2213 plate "D." Then remove the positive sub-base assembly as directed above, which makes accessible screws No. 4102 plate "A" and "B."

In reconnecting the motor the red colored wire coming from the motor should be attached to the terminal No. R plate "D", together with one of the wires going to the field rheostat. The white wire from the motor should be attached to terminal No. W, together with the other wire going to field rheostat. The green wire coming from the motor should be attached to terminal No. G, plate "D."

DOWSER OPERATION.

Care should be taken to close the reflector dowsers before striking the arc to prevent particles of carbon that are often discharged from the positive crater, when the arc is first struck, from impinging on the reflector and pitting it.

FUNCTION OF ARC STABILIZING MAGNET.

To insure a perfect crater formation a permanent magnet, shown as No. 2111 on plate "C" and "A" is provided in the PEERLESS MAGNARC. The function of this magnet is to direct the arc flame in a uniform and constantly upward direction and prevent the flame from enveloping the entire crater end of the positive carbon as well as to overcome other magnetic influences upon the arc. This magnet which is thoroughly aged, will last indefinitely but may be remagnetized if desired upon forwarding same to our factory. Do not place a keeper across the poles of this magnet.

CLEANING REFLECTOR.

The accessibility of the PEERLESS MAGNARC reflector should be taken advantage of to keep the reflector clean. It is advisable that the face of the reflector be wiped as frequently as carbon ash accumulates thereon and it is a good policy (once every week) to thoroughly clean the surface of the reflector with Bon Ami or a similar cleansing agent which will not scratch the glass. If maximum light efficiency of the lamp is to be maintained, it is essential that the mirror be kept in perfect condition.

CLEANING LAMPHOUSE.

A removable ash tray, located directly under the arc, is provided in the PEERLESS MAGNARC. This tray may be removed by opening reflector door No. 2115 plate "B." When replacing the tray care should be used to see that its top edge is placed underneath pins No. 3053 plate "C," so that it cannot come in contact with the lower part of the positive carbon guide Nos. 2277 and 2274 plate "E."

Care should also be taken to prevent accumulation of the metallic drippings from the carbons on any lamp parts on which they may cause a ground.

FORMATION OF CARBIDE TIPS ON NEGATIVE.

Under certain conditions a reddish carbide tip will form on the end of the negative carbon. This carbide tip is a non-conductor and if particularly heavy may cause difficulty in striking the arc.

If no arc occurs, the projector switch should be opened and the end of the carbon dampened which causes rapid disintegration of the carbide tip or with a file remove the formation from the tip of the negative carbon.

When the arc is not lit for intervals of fifteen or twenty minutes, this carbide tip will disintegrate itself due to contact with the air. When a carbide tip has formed on the end of the negative, it may be found that the speed of the arc control motor

increases, this being due to the current no longer emanating from the end of the negative carbon but rather from the sides thereof just back of the carbide tip. This condition results in higher arc voltage and consequently increased motor speed. When such a condition occurs, it is not advisable to readjust the arc control rheostat for this increased voltage but rather to remove the carbide tip when the end of the reel is reached.

LUBRICATION

A good grade of lubricating oil same as used in the motion picture projector, may be employed to lubricate the PEERLESS MAGNARC. It is recommended that oil be used sparingly as all parts of the PEERLESS MAGNARC are very slow moving and a few drops of oil in each oil cup (once a week) should suffice.

CARBON HOLDER SIZES.

Carbon holders and guides for 7 M/M Positive and 6 M/M Negative Carbons are regularly supplied with the PEERLESS MAGNARC. Carbon holders and guides for other sizes are obtainable and lamps will be equipped with them if specified at the time lamps are purchased.

TABLE OF RECOMMENDED CARBON COMBINATIONS,
ARC VOLTAGES AND AMPERAGES.

Copper Coated "HI" Carbons	Current Range	Arc Voltage Range	Carbon Consumption. Inches per Hr
6mm x 10" Positive	32-40	31-40	6.5—13.5
5mm x 9" Negative	32-40	31-40	3.0—4.5
7mm x 12" Positive	42-50	31-40	6.5—13.5
6mm x 9" Negative	42-50	31-40	3.0—4.5
8mm x 12" Positive	56-65	31-40	6.5—13.5
6.5mm x 9" Negative } or 7mm x 9" Negative }	56-65	31-40	3.0—4.5

increases, this being due to the current no longer emanating from the end of the negative carbon but rather from the sides thereof just back of the carbide tip. This condition results in higher arc voltage and consequently increased motor speed. When such a condition occurs, it is not advisable to readjust the arc control rheostat for this increased voltage but rather to remove the carbide tip when the end of the reel is reached.

LUBRICATION

A good grade of lubricating oil same as used in the motion picture projector, may be employed to lubricate the PEERLESS MAGNARC. It is recommended that oil be used sparingly as all parts of the PEERLESS MAGNARC are very slow moving and a few drops of oil in each oil cup (once a week) should suffice.

CARBON HOLDER SIZES.

Carbon holders and guides for 7 M/M Positive and 6 M/M Negative Carbons are regularly supplied with the PEERLESS MAGNARC. Carbon holders and guides for other sizes are obtainable and lamps will be equipped with them if specified at the time lamps are purchased.

TABLE OF RECOMMENDED CARBON COMBINATIONS,
ARC VOLTAGES AND AMPERAGES.

Copper Coated "HI" Carbons	Current Range	Arc Voltage Range	Carbon Consumption. Inches per Hr
6mm x 10" Positive	32-40	31-40	6.5—13.5
5mm x 9" Negative	32-40	31-40	3.0—4.5
7mm x 12" Positive	42-50	31-40	6.5—13.5
6mm x 9" Negative	42-50	31-40	3.0—4.5
8mm x 12" Positive	56-65	31-40	6.5—13.5
6.5mm x 9" Negative } or 7mm x 9" Negative }	56-65	31-40	3.0—4.5

PARTS LIST

ORDER INFORMATION

ORDERING.

When ordering repair parts please specify the catalogue number of the part wanted and the serial number of the lamp the parts are to be used on.

RETURNING PARTS.

Do not return merchandise to our factory for credit, exchange or replacement without first obtaining our permission.

Merchandise cannot be returned for exchange or credit after thirty days from date of purchase.

Parts that have been altered or mutilated in any manner are not returnable.

All shipments to our factory should have transportation charges prepaid and should be tagged with shipper's name, and order number.

IMPORTANT INFORMATION.

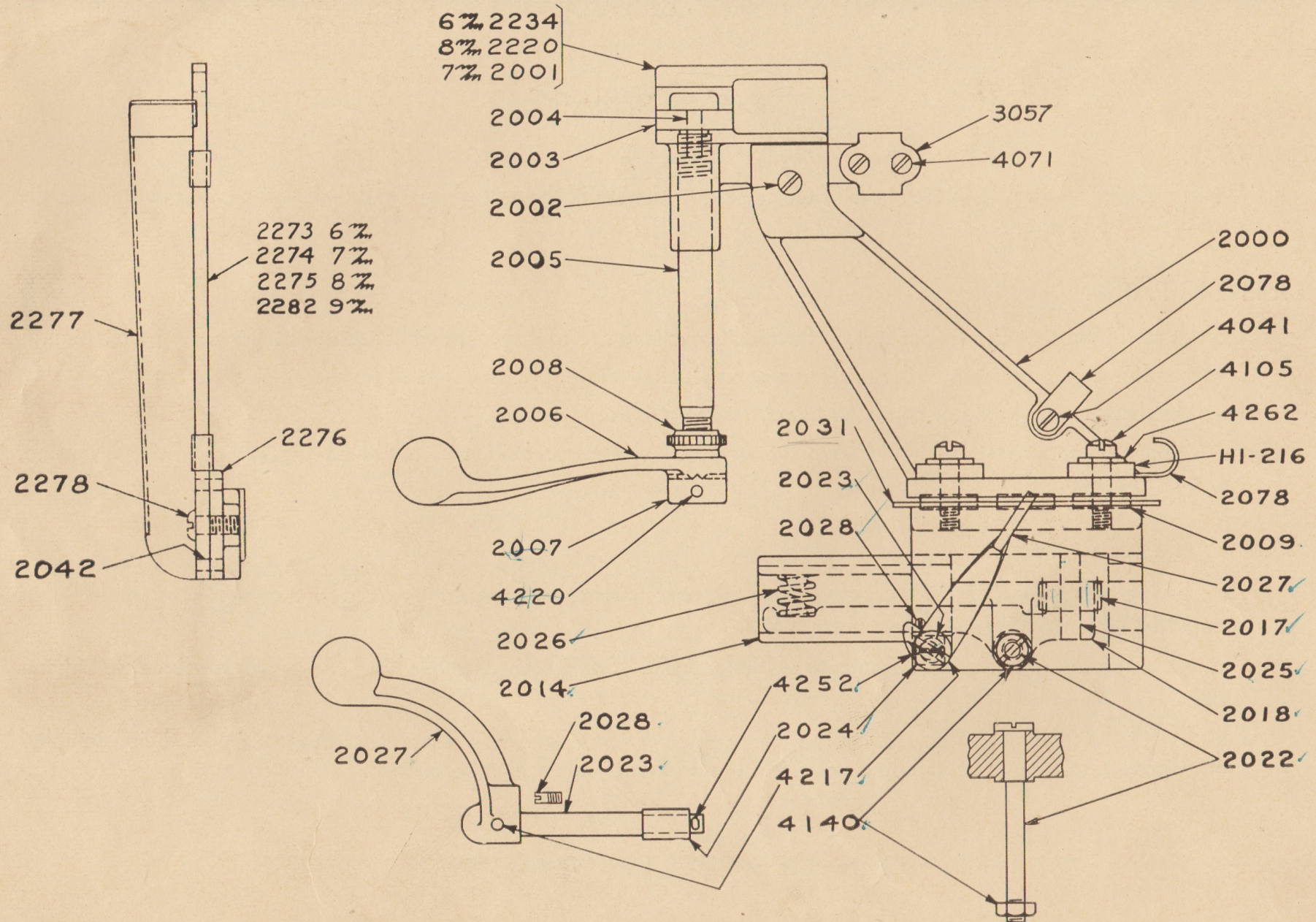
Parts having an asterisk (*) printed before them are **only** sold separate from their respective complete assembled units when equipment is sent to our factory for repairs.

Customers who desire to purchase such parts will refer to the "Complete Assembly List" and order assembled units therefrom.

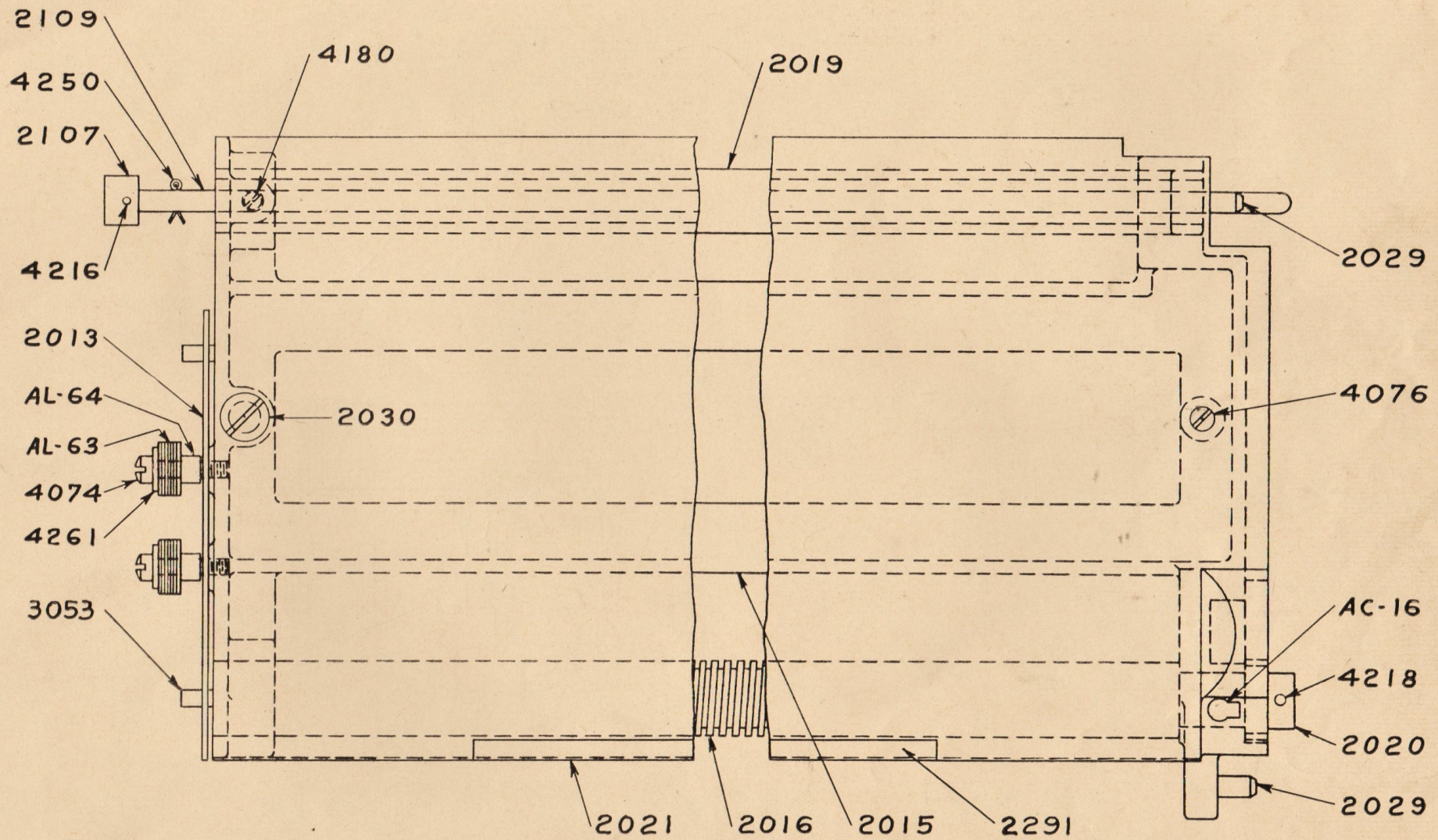
Parts having the reference "SEE Assembly No. ——" in the price column are **never** sold separate from their assembled units, therefore refer to the complete assembly list and order by the assembly number.

ALL PRICES HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE

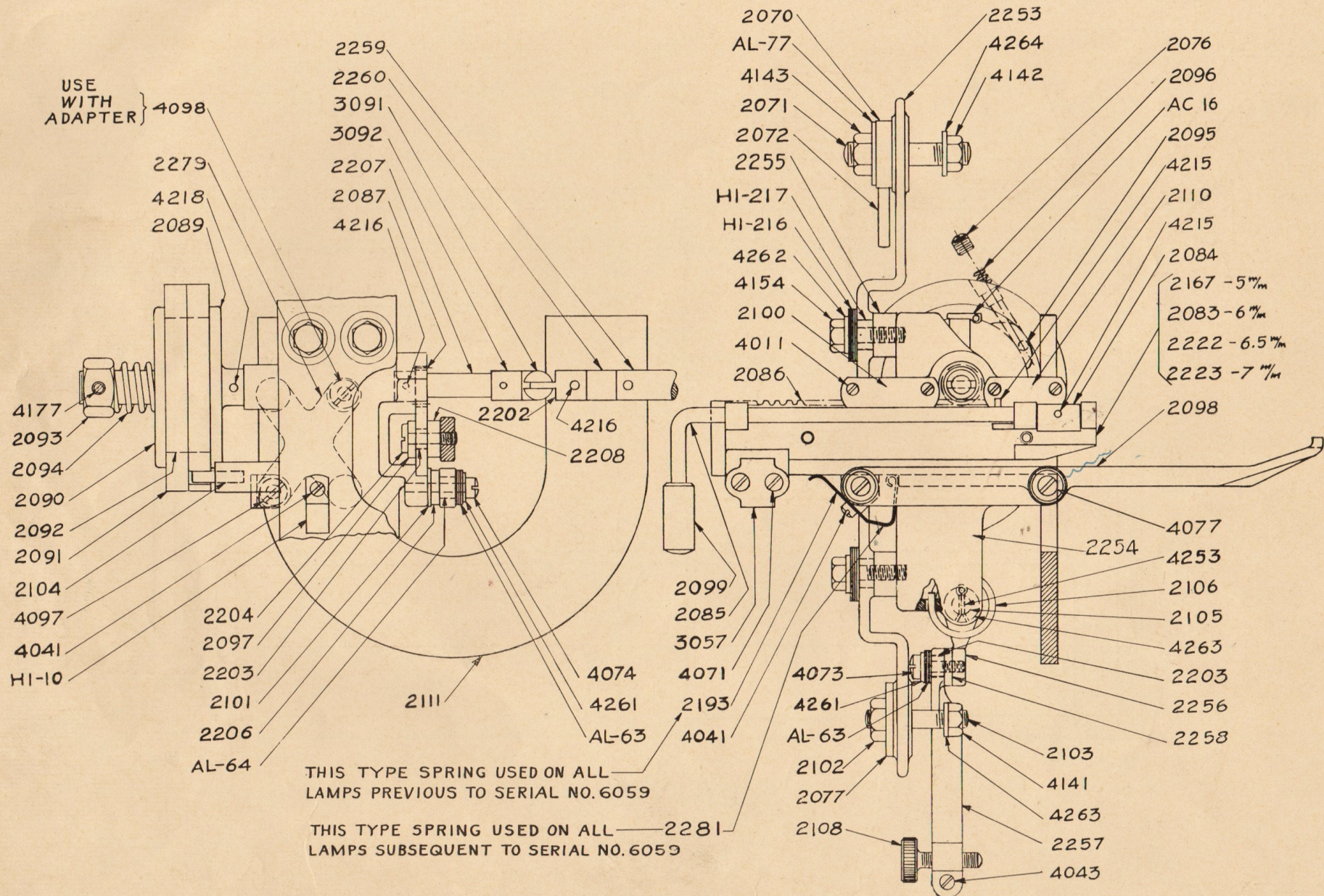
POSITIVE CARBON GUIDE, CLAMP HEAD AND FEED SADDLE



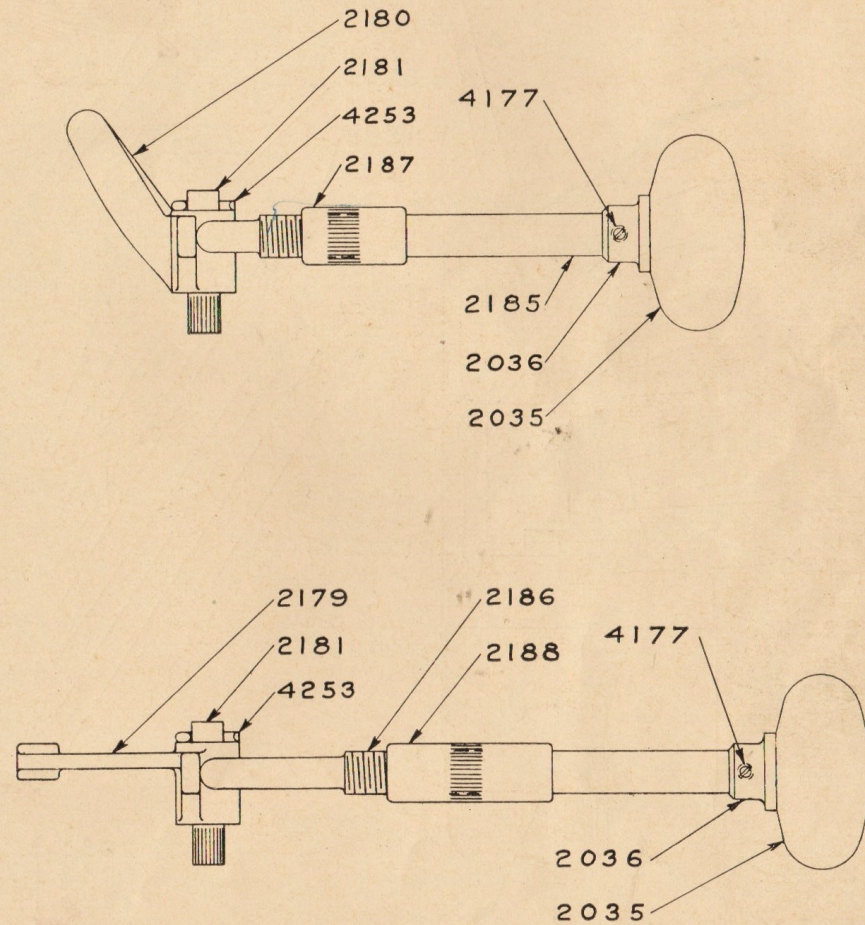
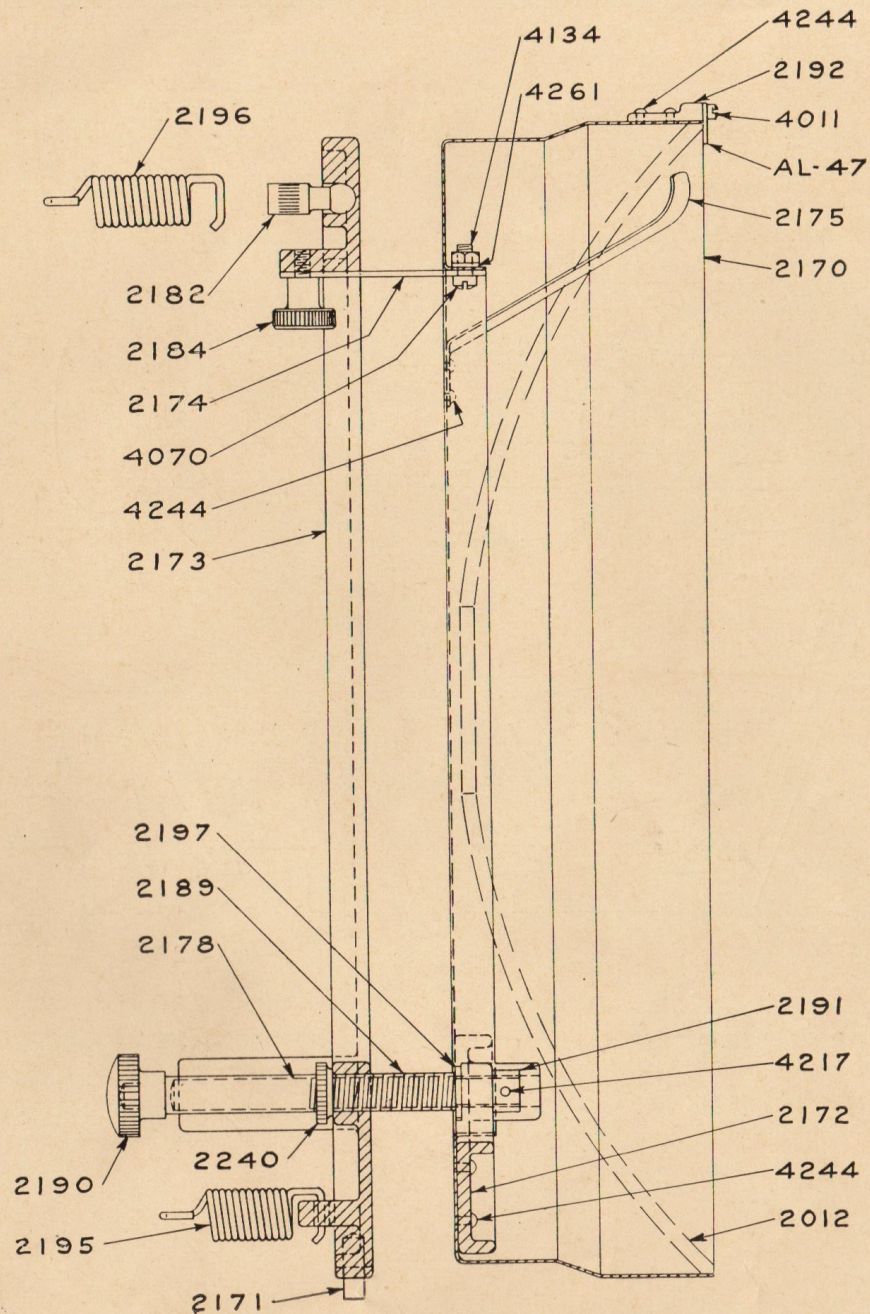
POSITIVE SUBBASE, FEED SCREW AND NEGATIVE PUSH ROD



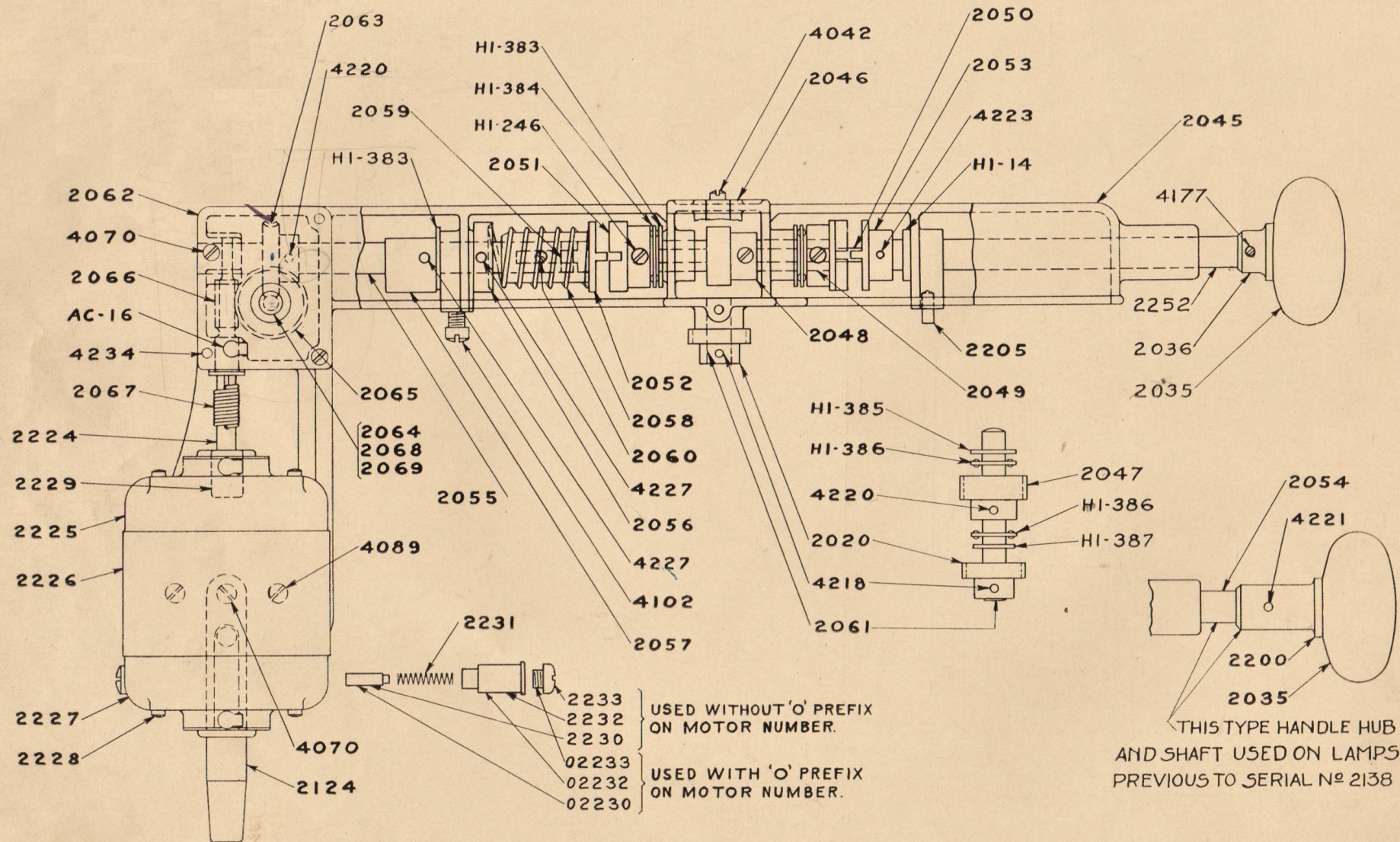
NEGATIVE POST, FEED CLUTCH, CARBON HOLDER AND GUIDE



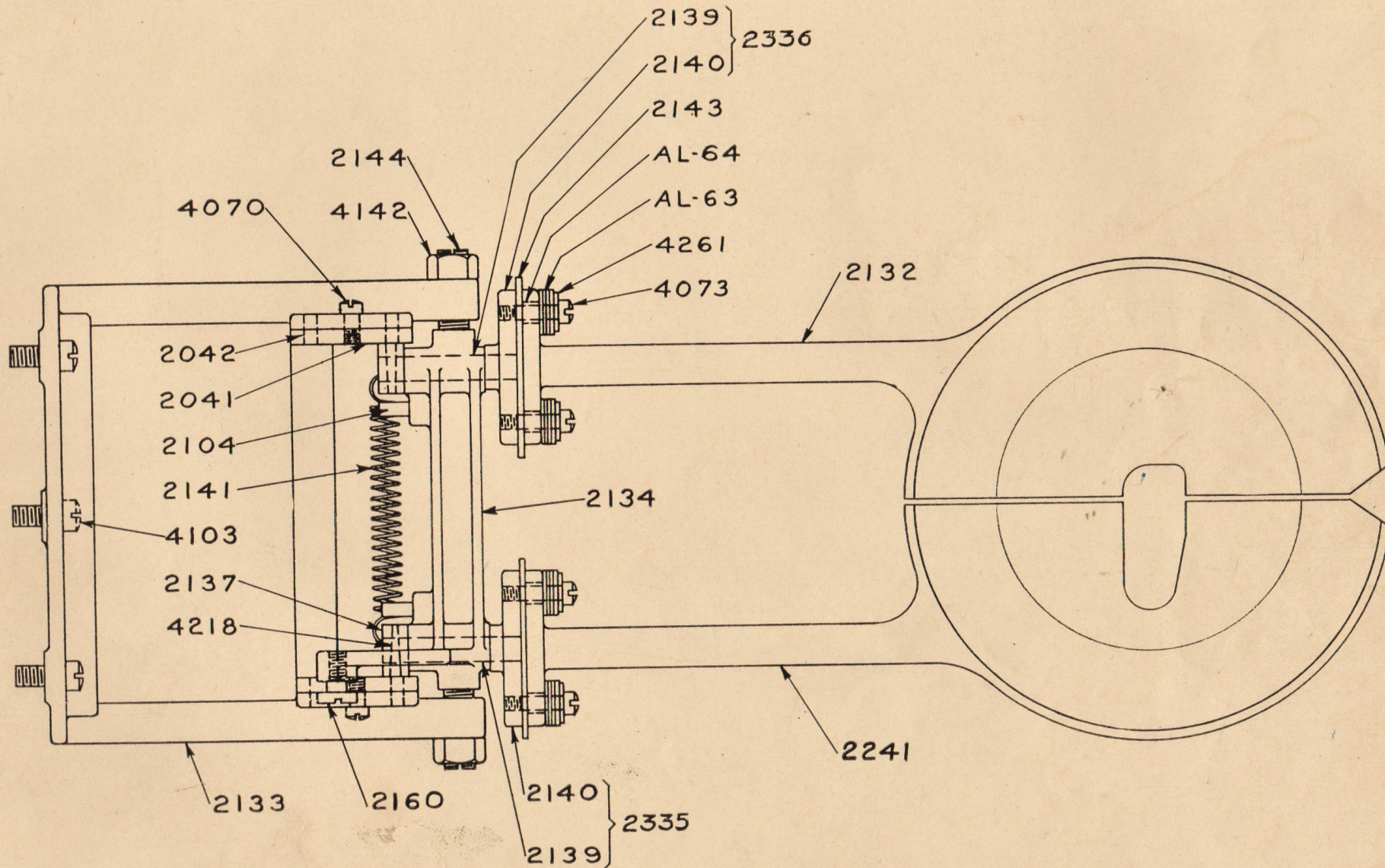
REFLECTOR DRUM, SUPPORT AND HAND ADJUSTMENTS



ARC FEED, MOTOR, DRIVE GEARING AND ADJUSTMENT HANDLE



REFLECTOR DOWSER AND SUPPORT



THIS TYPE FRONT DOWSER AND LINKAGE
USED ON ALL LAMPS SUBSEQUENT TO
SERIAL NO 1262

A technical line drawing of a mechanical assembly, identified as a front dowsing and linkage mechanism. The drawing shows a central vertical shaft with various components attached. At the top, a handle (2033) is connected via a pin (2034) to a bracket (2131). The main shaft (2211) has a horizontal arm (4042) extending to the left, which is connected to a long rod (4261) via a pin (4133). The rod has a component (2122) at its end. On the right side of the shaft, there is a bracket (4187) with a horizontal arm (2129) and a component (2160). Below this, a spring (LH-51) is attached to the shaft, and a component (LH-50) is shown. At the bottom, a bracket (4185) is connected to a handle (2127) via a pin (2127). The drawing is labeled with various part numbers and names.

2131

2034

2033

2211

4187

2212

LH-51

LH-50

4185

2127

2122

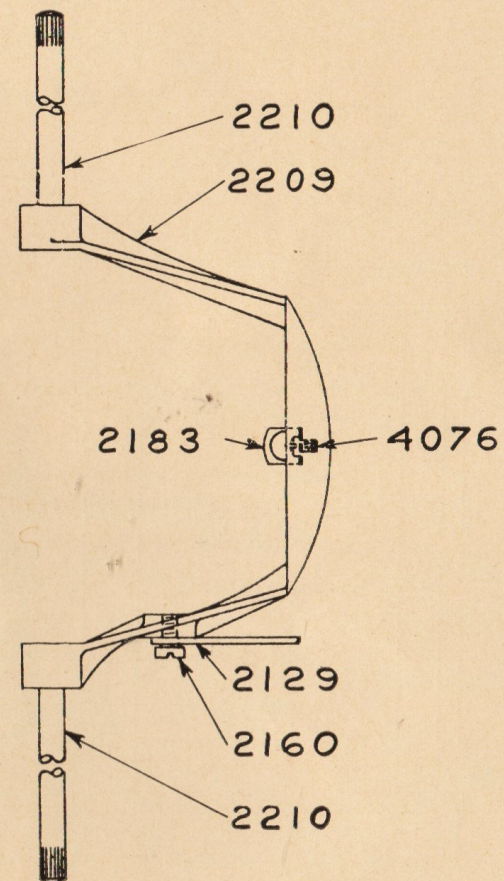
4042

4261

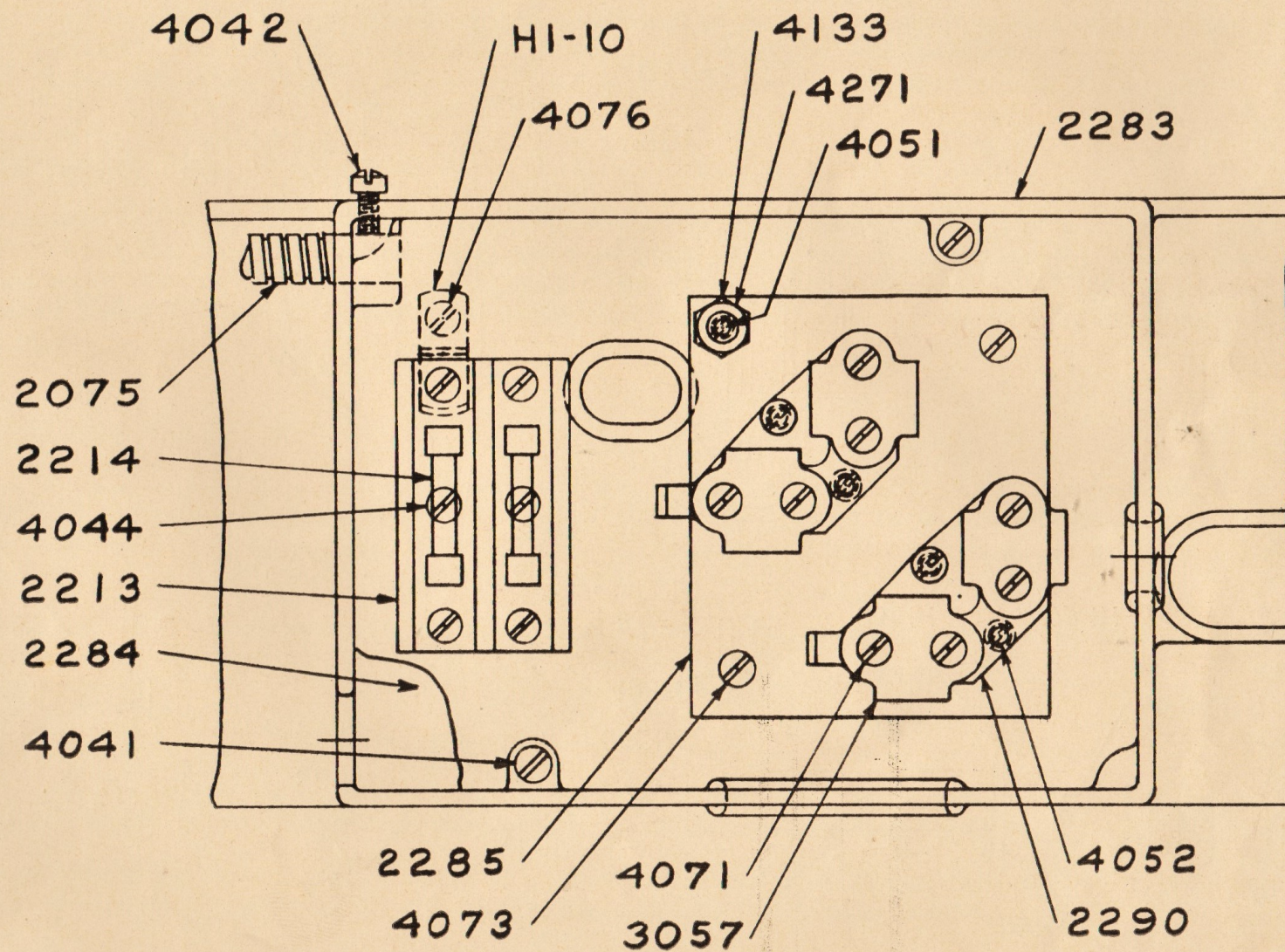
4133

2129

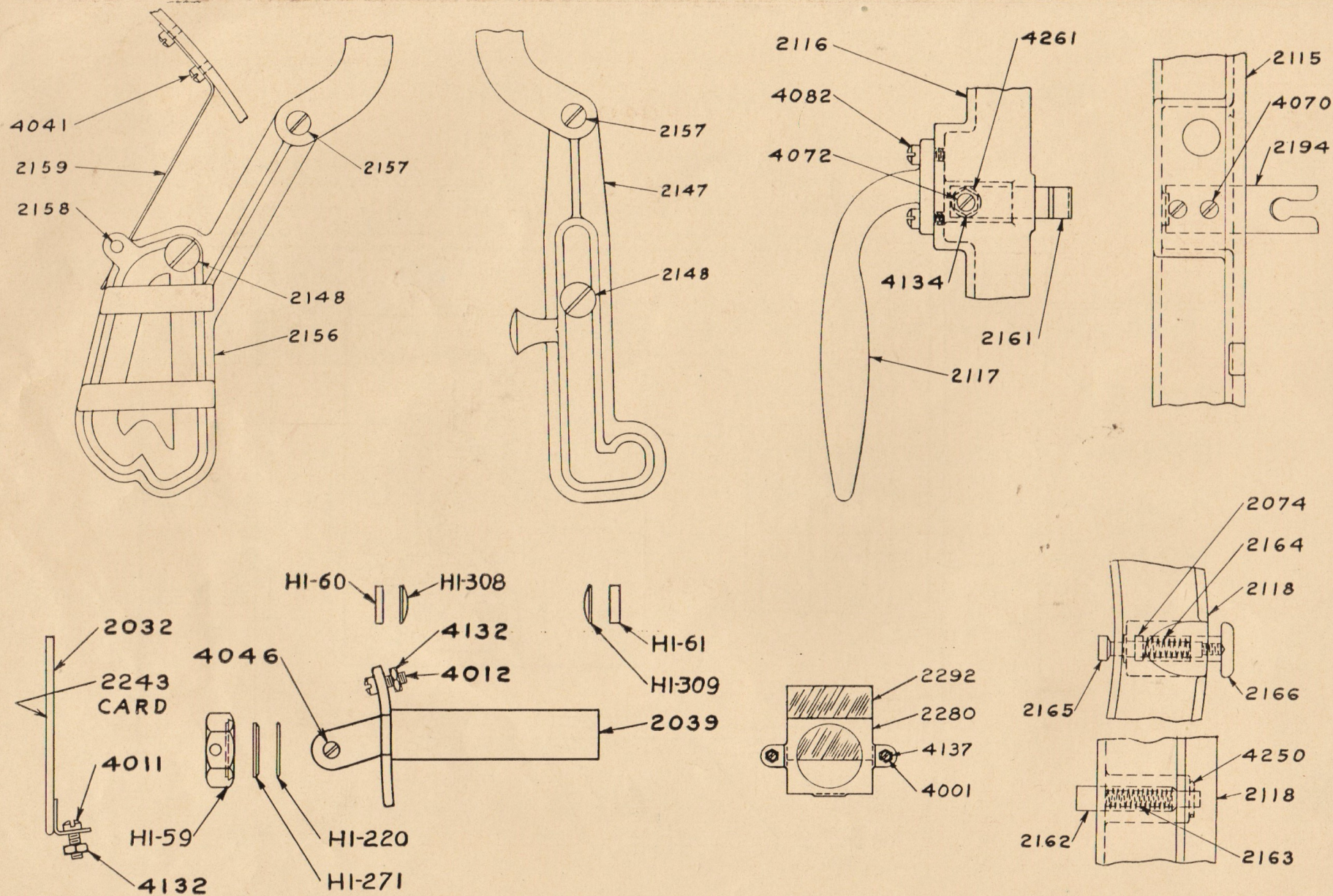
2160



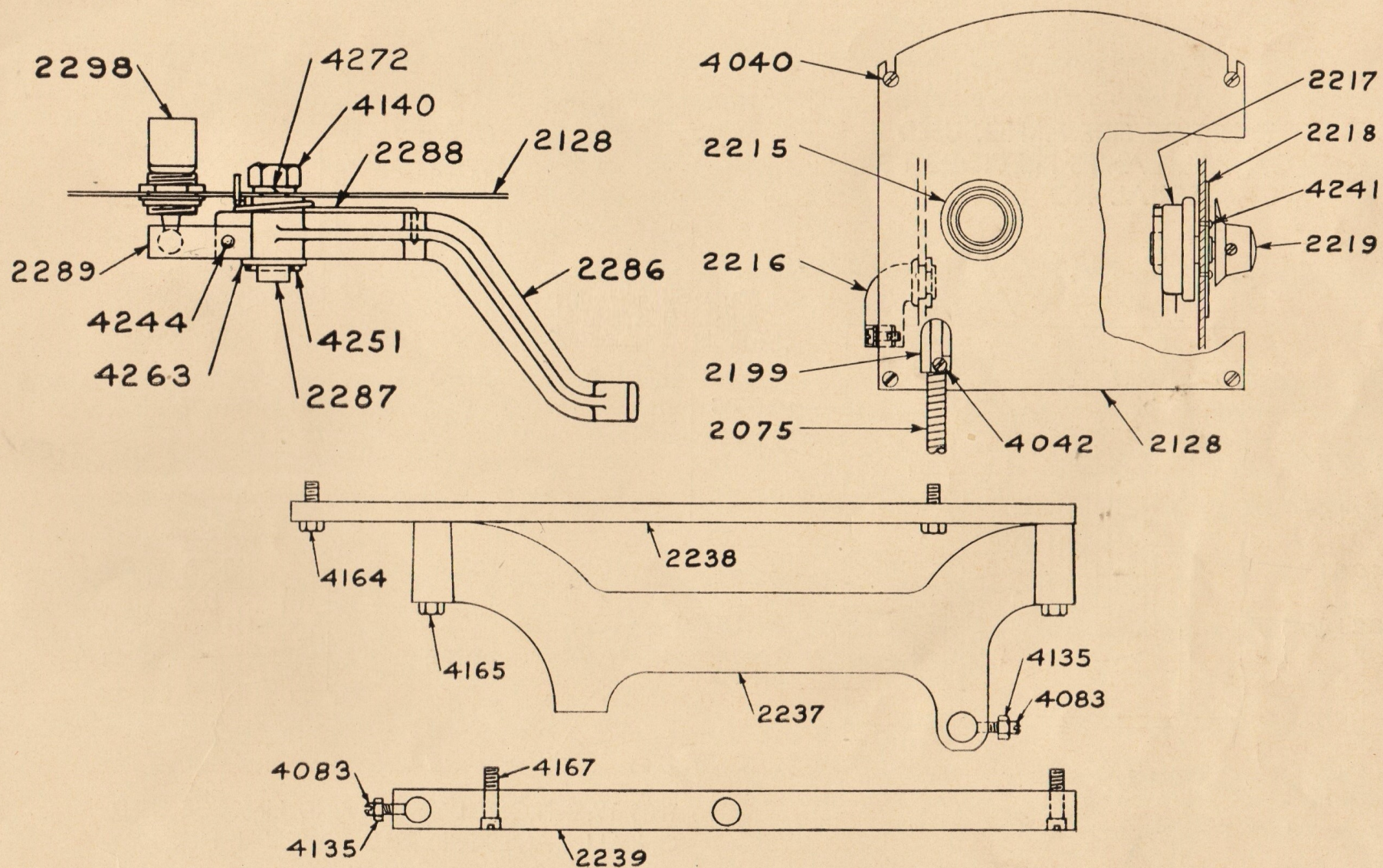
LAMPHOUSE SIDE PANEL AND CONNECTION BOX



LAMPHOUSE DOOR LATCHES, HANDLES AND ARC FEED INDICATOR

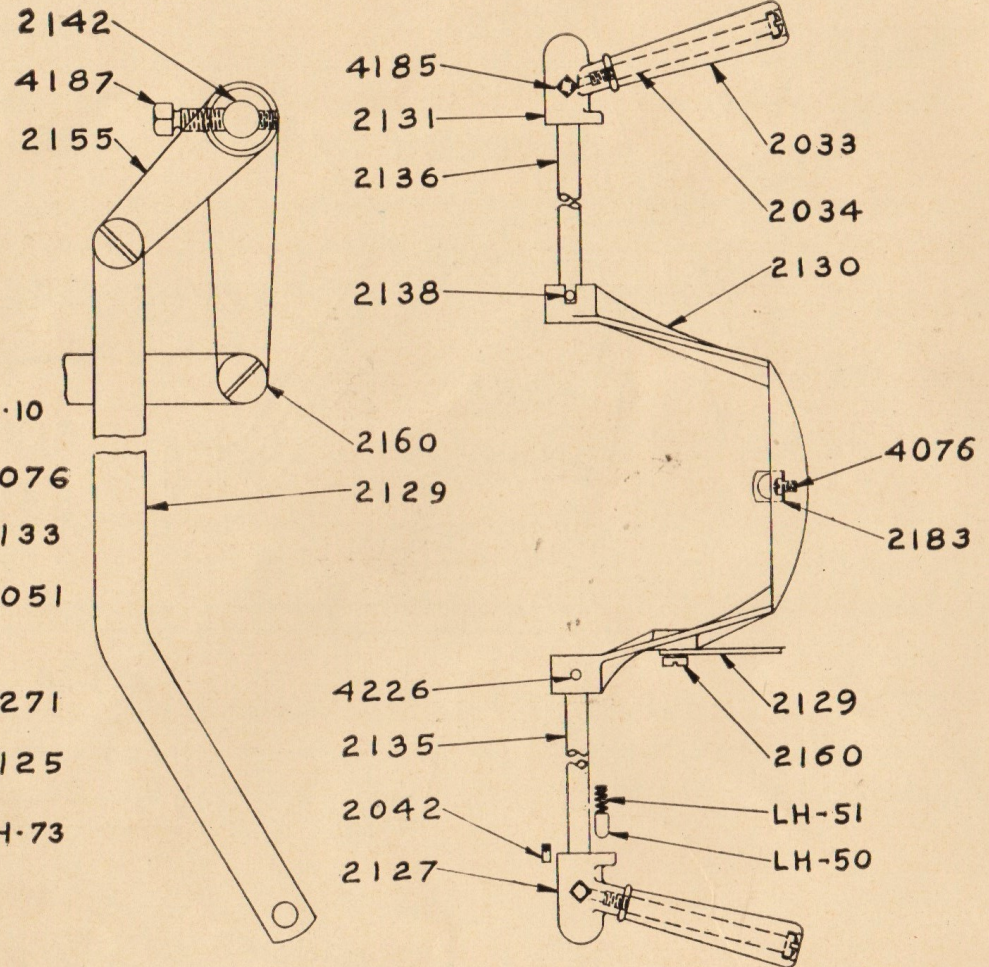
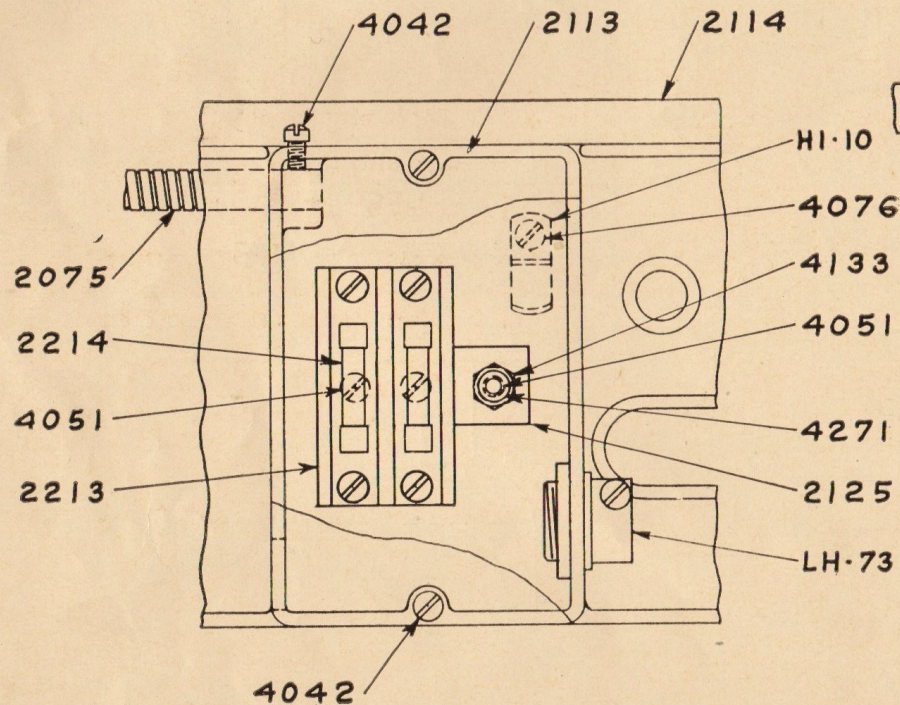


MOTOR RHEOSTAT, COMPARTMENT COVER, PILOT LIGHT SWITCH AND LAMPHOUSE ADAPTERS

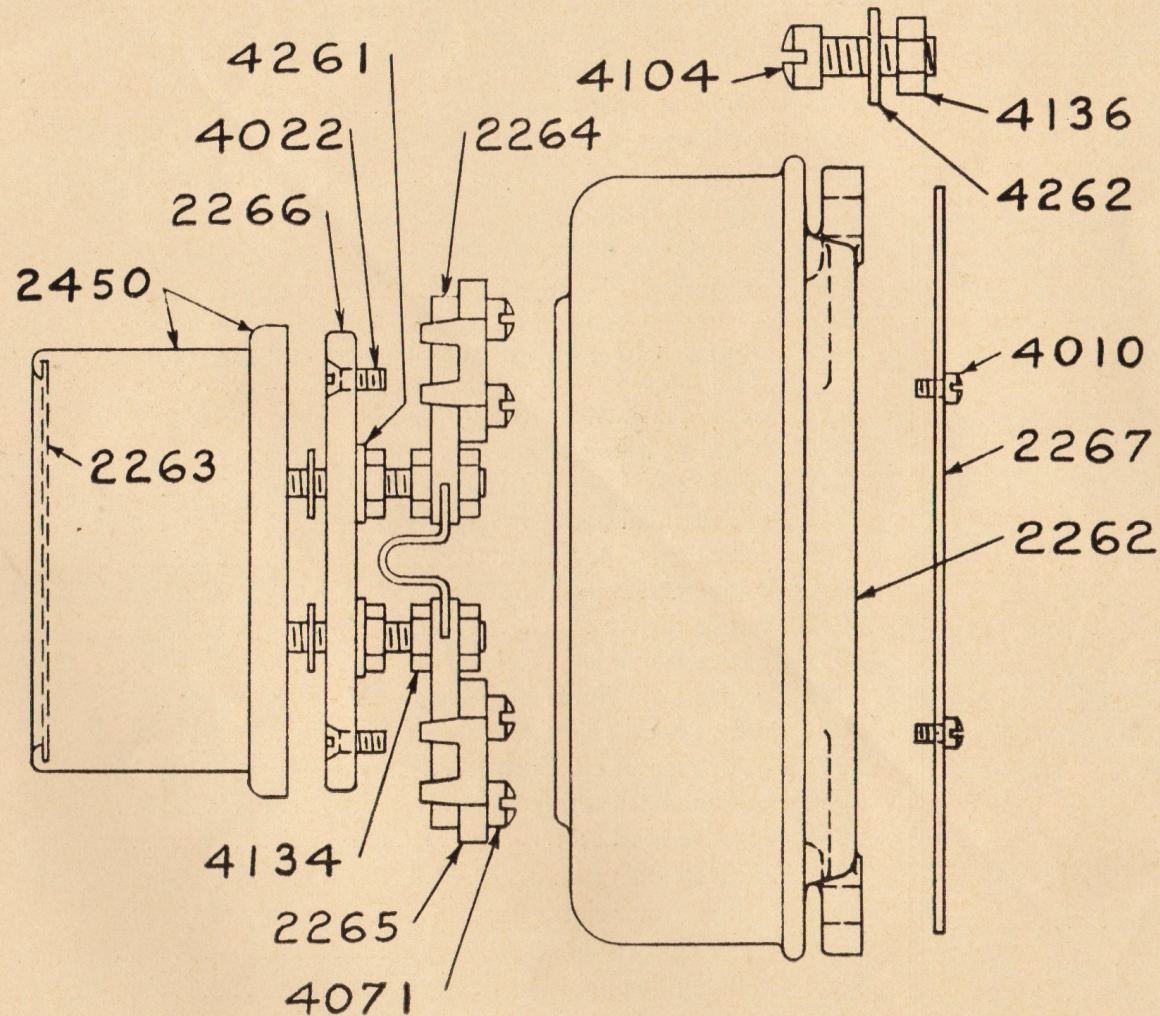


OLD STYLE SIDE PANEL, FUSE BOX AND DOWSER LINKAGE

THIS TYPE SIDE PANEL USED
ON ALL LAMPS PREVIOUS TO
SERIAL NO. 6364



THIS TYPE FRONT DOWSER AND LINKAGE USED
ON ALL LAMPS PREVIOUS TO SERIAL NO. 1263



When ordering repair parts, it is essential that the customer specify the catalogue number of the parts wanted and the serial number of the PEERLESS MAGNARC Lamp that they have been ordered for.

Strict adherence to this method will overcome unnecessary delay and assure prompt execution of orders.

Peerless **MAGNARC** PARTS LIST

- | | |
|------|---|
| 2000 | Positive Post Casting..... |
| 2001 | 7 M/M Positive carbon clamp head..... |
| 2002 | Positive carbon clamp swivel stud..... |
| 2003 | Positive carbon clamp shoe..SEE Assembly No. 2369 |
| 2004 | Positive carbon clamp shoe pin.....
SEE Assembly No. 2369 |
| 2005 | Positive carbon clamping screw..... |
| 2006 | Positive carbon clamp lever..... |
| 2007 | Positive clamp lever clutch..... |
| 2008 | Positive clamp screw lock nut..... |
| 2009 | Positive post lava insulator..... |
| 2011 | Positive Guide Caution Plate..... |
| 2012 | Reflector..... |
| 2013 | Positive guide support insulator..... |
| 2014 | Positive saddle casting..... |
| 2015 | Positive sub base casting.....SEE Assembly No. 2364 |
| 2016 | Positive feed screw..... |
| 2017 | Positive saddle clutch gear...SEE Assembly No. 2376 |
| 2018 | Positive saddle clutch lever..... |
| 2019 | Positive saddle slide tube..... |
| 2020 | Positive feed spur gear..... |
| 2021 | Positive sub base cover..... |
| 2022 | Positive saddle clutch stud..... |
| 2023 | Positive saddle clutch handle shaft..... |
| 2024 | Positive saddle clutch block..... |
| 2025 | Positive saddle clutch gear shaft.....
SEE Assembly No. 2376 |
| 2026 | Positive saddle clutch spring..... |
| 2027 | Positive saddle clutch handle..... |
| 2028 | Positive saddle clutch handle stop screw..... |
| 2029 | Positive sub base dowel pin..... |

- 2030 Positive sub base retainer screw.....
- 2031 Positive post bakelite insulator.....
- 2032 Arc image card holder.....
- 2033 Lamphouse side door handle.....
- 2034 Lamphouse side door handle screw.....
- 2035 Adjusting knob.....
- 2036 Adjusting knob hub.....
- 2039 Arc imager main body casting.....
- 2040 Door glass frame.....
- 2041 Rear dowser cam plate.....
- 2042 Dowel pin for positive carbon guide and rear dowser
cam plate.....
- 2045 Arc feed main frame casting..SEE Assembly No. 2419
- 2046 Helical gear box cover.....
- 2047 Positive spiral gear (driven).....
- 2048 Positive spiral gear (Driver).....
- 2049 Positive drive gear shaft.....
- 2050 Positive clutch push rod.....
- 2051 Positive female clutch.....
- 2052 Positive male clutch (left side).....
- 2053 Positive male clutch (right side).....
- 2054 Positive hand adjustment shaft (old style).....
- 2055 Positive motor clutch shaft...SEE Assembly No. 2416
- 2056 Positive clutch spring collar.....
- 2057 Negative feed cam.....
- 2058 Positive clutch spring.....
- 2059 Positive motor clutch stop pin.SEE Assembly No. 2416
- 2060 Motor clutch stop screw.....
- 2061 Positive driven gear shaft.....
- 2062 Worm gear box cover.....SEE Assembly No. 2418
- 2063 Positive secondary worm gear.....

2138 Front dowser shaft pin (old style).....
 2139 Reflector dowser cam shaft.....
 SEE Assembly No. 2335 or No. 2336
 2140 Reflector dowser cam shaft flange.....
 SEE Assembly No. 2335 or No. 2336
 2141 Reflector dowser cam spring.....
 2142 Front dowser bell crank shaft (old style).....
 2143 Reflector dowser insulator plate.....
 2144 Reflector dowser dog point screw.....
 2145 Right and left door hinge rod.....
 2146 Hinge rod screw.....
 2147 Left door latch.....
 2148 Right and left door latch stud.....
 2149 Rear right door channel casting.....
 2150 Front right door channel casting.....
 2151 Rear left door channel casting.....
 2152 Front left door channel casting.....
 2153 Right door panel.....
 SEE Assembly No. 2310 or No. 2311
 2154 Left door panel.....
 SEE Assembly No. 2307 or No. 2308
 2155 Dowser bell crank (old style).....
 2156 Right door latch.....SEE Assembly No. 2309
 2157 Right and left door latch screw.....
 2158 Right door latch pin.....
 2159 Right door latch spring.....
 2160 Dowser link screw.....
 2161 Auxiliary door latch spring.....
 2162 Reflector door opening plunger.....
 2163 Reflector door opening plunger spring.....
 2164 Reflector door push plunger spring.....
 2165 Reflector door push plunger.....
 2166 Reflector door push plunger knob.....
 2167 5 M/M Negative carbon holder casting.....
 2168 Reflector door hinge pin.....
 2169 Reflector door hinge nut.....

2170 Reflector drum.....SEE Assembly No. 2329
 2171 Reflector support guide stud.....
 2172 Reflector drum bracket.....SEE Assembly No. 2329
 2173 Main reflector drum support.....SEE Assembly No. 2330
 2174 Reflector adjustment link.....
 2175 Reflector pressure spring.....
 2176 Glass name plate.....
 2177 Glass name plate frame.....SEE Assembly No. 2300
 2178 Reflector support slide rod.....
 2179 Lower reflector lever casting.....
 2180 Upper reflector adjustment lever.....
 2181 Reflector adjustment lever pivot stud.....
 2182 Reflector support swivel stud (upper).....
 2183 Front dowser stop spring.....
 2184 Reflector adjustment link screw.....
 2185 Upper reflector adjusting screw rod.....
 2186 Lower reflector adjusting screw rod.....
 2187 Bushing for upper reflector screw rod.....
 2188 Bushing for lower reflector screw rod.....
 2189 Reflector focusing screw.....SEE Assembly No. 2328
 2190 Reflector focusing screw knob.....
 SEE Assembly No. 2328
 2191 Reflector focusing screw collar.....
 2192 Reflector retaining clip lug.....
 2193 Negative rack tipping spring (old style).....
 2194 Reflector door latch.....
 2195 Reflector adjusting spring (lower).....
 2196 Reflector adjusting spring (upper).....
 2197 Reflector focusing screw washer.....
 2198 Lamphouse top grill casting.....
 2199 "BX" bushing to motor fuse block.....
 2200 Positive hand knob hub (old style long hub).....
 2202 Negative universal yoke, insulator end.....
 SEE Assembly No. 2403
 2203 Negative rack insulator bushing.....
 2204 Negative rack screw.....

2205 Arc control dowel pin

2206 Negative carbon guide insulator ($\frac{3}{16}$ " thick lava washer)

2207 Negative feed clutch shaft (new style $6\frac{3}{16}$ " long)

2208 Negative insulator washer ($\frac{1}{4}$ " thick lava washer)

2209 Front dowser casting

2210 Front dowser shaft

2211 Dowser bell crank shaft

2212 Dowser bell crank

2213 Motor fuse block

2214 Motor fuse

2215 Pilot lamp socket

2216 Pilot lamp conduit elbow

2217 Motor speed control rheostat

2218 Rheostat dial plate

2219 Rheostat knob

2220 8 M/M Positive carbon clamp head

2222 6.5 M/M Negative carbon holder casting

2223 7 M/M Negative carbon holder casting

2224 Motor armature fan

2225 Motor end bell, front SEE Assembly No. 2420

***2226 Motor housing field ring

2227 Motor end bell, rear SEE Assembly No. 2421

2228 Motor end bell retainer screw

***2229 Motor armature bearing

02230 Motor brush ($\frac{1}{4}$ " wide x $\frac{1}{8}$ " thick)

02231 Motor brush spring

02232 Motor brush holder

02233 Motor brush holder cap

2234 6 M/M Positive carbon clamp head casting

2237 Motiograph and Western Electric adapter
casting

2238 Motiograph and Western Electric adapter
rail

2239 Powers 6-B and 6-E adapter rail

2240 Reflector focusing screw lock nut

***Obtainable only when installed at factory.

2241 Right half of reflector dowsor.
2242 Lead wires to motor rheostat.
..... SEE Assembly No. 2430
2243 Indicator card.
2244 Motor field coil. SEE Assembly No. 2423
2245 Motor rheostat retainer nut.
2246 Motor commutator inspection plug (large).
2247 Main terminal to fuse lead. SEE assembly No. 2432
2248 Caution plate.
2249 Commutator inspection plug (small).
2250 Spaghetti tubing for motor circuit wires.
2252 Positive hand knob shaft (short hub type).
2253 Negative rack bracket support.
..... SEE Assembly No. 2405
2254 Negative rack bracket. SEE Assembly No. 2406
2255 Negative rack bracket insulator.
2256 Negative feed lever (upper). SEE Assembly No. 2399
2257 Negative feed lever (lower).
2258 Negative feed lever insulator.
2259 Negative hand feed shaft.
2260 Negative hand feed shaft insulator.
2262 Ammeter bracket casting.
2264 0-110 Ammeter shunt.
2265 Wire clamp on ammeter shunt.
2266 Ammeter insulator plate.
2267 Ammeter bracket cover.
2268 Bushing in rheostat conduit.
2269 Motiograph type H. shutter cone.
2273 6 M/M positive carbon guide.
2274 7 M/M positive carbon guide.
2275 8 M/M positive carbon guide.
2276 Positive guide support casting.
2277 Positive guide chute.
2278 Screw to hold positive guide to support.
2279 Magnet adapter.
2280 Name plate peep glass frame.

2281	Negative tipping spring.....
2282	9 M/M positive carbon guide.....
2283	Side panel casting.....
2284	Cut out box cover.....
2285	Main terminal block.....
2286	Pilot light switch lever casting—SEE Assembly 2431
2287	Pilot light switch lever stud.....
2288	Pilot light switch lever spring.....
2289	Pilot light switch knob spring.....
2290	Main terminal base.....
2291	Positive scale decalcomania.....
2292	Name plate peep glass.....
2293	Lamphouse name plate..... ON APPLICATION
2294	Lead between main terminal and negative carbon holder or between main terminal and meter shunt.....
2295	Lead between main terminal and positive carbon holder or between meter shunt and negative carbon holder.....
2298	Pilot light switch.....
2299	Pilot light lead.....

"AC" PREFIX PARTS

AC-16	Oil cup.....
AC-23	Washer for rheostat nut.....

"AL" PREFIX PARTS

AL-47	Reflector retainer clip.....
AL-63	Mica insulator washer.....
AL-64	Lava insulator bushing.....
AL-77	Washer.....

"HI" PREFIX PARTS

HI-10	Lead wire clamp.....
HI-14	Leather thrust washer.....
HI-59	Mirror holder.....
HI-60	Outer lens retainer ring.....
HI-61	Inner lens retainer ring.....
HI-216	Mica insulator washer.....
HI-217	Mica insulator washer.....
HI-220	Mirror retainer spring.....
HI-246	Female clutch retainer screw.....
HI-271	Mirror.....
HI-308	Outer lens.....
HI-309	Inner lens.....
HI-372	Rheostat lead wire terminal.....
HI-383	Thrust washer on secondary shaft.....
HI-384	Thrust ball race on female.....
HI-385	Thrust washer on upper shaft.....
HI-386	Thrust ball race on upper shaft.....
HI-387	Thrust washer on upper shaft.....

"LH" PREFIX PARTS

LH-18	Door glass.....
LH-50	Dowser handle plunger.....
LH-51	Dowser handle plunger spring.....
LH-73	Conduit connector and nut.....

THREE THOUSAND SERIES PARTS

3053	Ash pan stop pin
3057	Main lead terminal clamp
3091	Universal ballSEE Assembly No. 2403
3092	Universal joint yoke.....SEE Assembly No. 2403

FOUR THOUSAND SERIES PARTS

4001	Machine Screw
4010	Machine screw
4011	Machine screw
4012	Machine screw
4014	Machine screw
4022	Machine Screw
4040	Machine screw
4041	Machine screw
4042	Machine screw
4043	Machine screw
4044	Machine Screw
4045	Machine Screw
4046	Machine screw
4051	Machine screw
4052	Machine Screw
4053	Machine screw
4070	Machine screw

4071	Machine screw
4072	Machine screw
4073	Machine screw
4074	Machine screw
4076	Machine screw
4077	Machine screw
4082	Machine screw
4083	Machine screw
4087	Machine screw
4088	Machine Screw
4089	Machine Screw
4090	Machine screw
4097	Machine screw
4098	Machine Screw
4102	Machine screw
4103	Machine screw
4104	Machine Screw
4105	Machine screw
4117	Machine screw
4132	Hexagon nut
4133	Hexagon nut
4134	Hexagon nut
4135	Hexagon nut

4136 Hexagon Nut.....
4137 Hexagon Nut.....
4140 Hexagon nut.....
4141 Hexagon nut.....
4142 Hexagon nut.....
4143 Hexagon nut.....
4153 Hexagon head cap screw.....
4154 Hexagon head cap screw.....
4164 Hexagon head cap screw.....
4165 Hexagon head cap screw.....
4166 Fillister head cap screw.....
4167 Fillister head cap screw.....
4177 Headless set screw.....
4180 Headless set screw.....
4183 Headless set screw.....
4185 Square head set screw.....
4187 Square head set screw.....
4215 Taper pin.....
4216 Taper pin.....
4217 Taper pin.....
4218 Taper pin.....

4220 Taper pin.....
4221 Taper pin.....
4223 Taper pin.....
4226 Taper pin.....
4227 Taper pin.....
4234 Straight steel pin.....
4240 Rivet.....
4241 Rivet.....
4244 Rivet.....
4247 Rivet.....
4250 Cotter pin.....
4251 Cotter pin.....
4252 Cotter pin.....
4253 Cotter pin.....
4260 Washer.....
4261 Washer.....
4262 Washer.....
4263 Washer.....
4264 Washer.....
4271 Lock washer.....
4272 Lock Washer.....
4300 $\frac{1}{8}$ " Steel ball.....
4301 $\frac{3}{16}$ " Steel ball.....

UNIT ASSEMBLY LIST

LAMPHOUSE ASSEMBLIES

- 2300 Complete glass name plate frame with screws.....
- 2301 Complete glass name plate frame with glass plate and screws.....
- 2302 Lamphouse top with chimney and damper.....
- 2303 Lamphouse base casting with sheet metal panel assembled
- 2304 Lamphouse front casting with motor rheostat dial plate
- 2305 Lamphouse back casting with complete door latch and opening plunger assembled.....
- 2306 Lamphouse side panel casting with fuse block, fuses, field terminal, wire clamp, and BX connector assembled but less fuse box cover (old style).....
- 2307 Left side lamphouse door less glass frame and handle..
- 2308 Left side lamphouse door complete with glass frame, glass and handle.....
- 2309 Right door latch and pin.....
- 2310 Right side lamphouse door less glass frame and handle.
- 2311 Right side lamphouse door complete with glass frame, glass and handle.....
- 2312 Complete reflector door with pivot studs, rod bushings, latch plate and reflector drum support stud.....
- 2313 Complete auxiliary rear door with spring catch, handle, name plate rivets, but less name plate.....
- 2314 Lamphouse side panel casting with main terminals, fuse block, fuses and cover complete.....

ARC IMAGER ASSEMBLIES

- HI-1077 Mirror holder with mirror complete.....
- 2320 Arc image projector complete less card holder.....
- 2321 Arc image projector complete with card holder.....
- 2322 Card holder, register card and mounting screws.....

REFLECTOR DRUM AND CARRIAGE ASSEMBLIES

- 2325 Hand adjustment knob with hub and set screw.....
- 2326 Upper reflector adjustment rod with knob and knob hub
- 2327 Lower reflector adjustment rod with knob and knob hub
- 2328 Reflector focusing screw and knurled head assembled..
- 2329 Complete reflector drum with springs, reflector clip, support bracket, support rods, and locking link assembled.....
- 2330 Main reflector support casting with lower guide stud...
- 2331 Complete reflector drum, main support casting locking link, and focusing screw assembled.....

FRONT AND REAR DOWSER ASSEMBLIES

- 2335 Right reflector dowser cam shaft and flange assembled.
- 2336 Left reflector dowser cam shaft and flange assembled..
- 2337 Reflector dowser support bracket with retainer screws, cam plate, dowel pins, pivot screws and lock nuts assembled.....
- 2338 Right dowser handle complete with screw, handle hub and set screw.....
- 2339 Left dowser handle complete with screw, handle hub and set screw.....
- 2340 Reflector dowser swinging trunnion with cams, cam shafts, stop pins, flanges, linkage screw and spring assembled.....
- 2341 Reflector dowser swinging trunnion with cams, cam shafts, flanges, spring, insulation and dowser disc castings assembled.....
- 2342 Complete swinging trunnion with dowser discs and main support bracket assembled.....

POSITIVE SUB BASE, CARBON GUIDE, CARBON CLAMP AND SADDLE ASSEMBLIES

- 2360 6 M/M Positive carbon guide complete
- 2361 7 M/M Positive carbon guide complete
- 2362 8 M/M Positive carbon guide complete
- 2363 Acme feed screw with pinion and pin
- 2364 Sub base casting with oil cup, dowel pins, ash pan pins
and set screw for tube
- 2365 Complete sub base with cover, acme screw, pinion, tube
and pins but less carbon guide, insulation and saddle
assembly
- 2366 Complete positive sub base assembly with 6 M/M car-
bon clamp, post, saddle, 6 M/M carbon guide,
support and insulation
- 2367 Complete positive sub base assembly with 7 M/M car-
bon clamp, post, saddle, 7 M/M carbon guide,
support and insulation
- 2368 Complete positive sub base assembly with 8 M/M car-
bon clamp, post, saddle, 8 M/M carbon guide,
support and insulation
- 2369 Positive carbon clamp shoe and pin
- 2370 6 M/M Positive carbon clamp complete with shoe,
clamp screw, lock nut, lever, button and wire clamp.
- 2371 7 M/M Positive carbon clamp complete with shoe,
clamp screw, lock nut, lever, button and wire clamp.
- 2372 8 M/M Positive carbon clamp complete with shoe,
clamp screw, lock nut, lever, button and wire clamp.
- 2373 6 M/M Positive carbon clamp complete with post cast-
ing pivot screw, wire clamp and screw
- 2374 7 M/M Positive carbon clamp complete with post cast-
ing pivot screw, wire clamp and screw
- 2375 8 M/M Positive carbon clamp complete with post cast-
ing pivot screw, wire clamp and screw

- 2376 Positive saddle clutch pinion with shaft assembled
- 2377 Positive saddle complete with clutch
- 2378 6 M/M Complete positive carbon clamp with post,
insulation, saddle and clutch assembled
- 2379 7 M/M Complete positive carbon clamp with post,
insulation, saddle and clutch assembled
- 2380 8 M/M Complete positive carbon clamp with post,
insulation, saddle and clutch assembled
- 2381 9 M/M Positive carbon guide complete

NEGATIVE POST, FEED CLUTCH AND CARBON HOLDER ASSEMBLIES

- 2390 Complete 5 M/M negative carbon clamp casting with
eccentric, lever, wire clamp and handle assembled ..
- 2391 Complete 6 M/M negative carbon clamp casting with
eccentric, lever, wire clamp and handle assembled ..
- 2392 Complete 6.5 M/M negative carbon clamp casting with
eccentric, lever, wire clamp and handle assembled ..
- 2393 Complete 7 M/M negative carbon clamp casting with
eccentric, lever, wire clamp and handle assembled ..
- 2394 Complete 5 M/M negative carbon clamp with insulators,
screws and feed rack assembled
- 2395 Complete 6 M/M negative carbon clamp with insulators,
screws and feed rack assembled
- 2396 Complete 6.5 M/M negative carbon clamp with insula-
tors, screws and feed rack assembled
- 2397 Complete 7 M/M negative carbon clamp with insulators,
screws and feed rack assembled
- 2398 Complete clutch feed lever with insulation, pin and
adjusting screw
- 2399 Negative feed lever, upper with clutch pin
- 2400 Complete negative push rod with button and cotter pin
- 2401 Complete negative feed clutch with clutch sleeve friction
disc spring and nut assembled

- 2402 Negative adjusting eccentric sleeve and lever.....
- 2403 Complete universal joint for negative hand shaft with taper pins.....
- 2404 Hand feed knob with hub, set screw, universal joint, shaft and insulator.....
- 2405 Negative rack support casting with caution plate and wire clamp assembled.....
- 2406 Negative rack casting with pin, oil cup, lever stud, and cotter pin.....
- 2407 Complete negative rack support with rack casting, pin, feed lever stud, oil cup, and cotter pin assembled..
- 2408 Complete negative post assembly with 5 M/M carbon holder, feed rack, carbon guide, insulation, feed clutch, clutch lever and adjusting screw assembled but less magnet and universal joint.....
- 2409 Complete negative post assembly with 6 M/M carbon holder, feed rack, carbon guide, insulation, feed clutch, clutch lever and adjusting screw assembled but less magnet and universal joint.....
- 2410 Complete negative post assembly with 6.5 M/M carbon holder, feed rack, carbon guide, insulation feed clutch, clutch lever and adjusting screw assembled but less magnet and universal joint.....
- 2411 Complete negative post assembly with 7 M/M carbon holder, feed rack, carbon guide, insulation, feed clutch, clutch lever and adjusting screw assembled but less magnet and universal joint.....

ARC FEED, MOTOR, MOTOR RHEOSTAT, PILOT LIGHT, SWITCH AND COMPARTMENT COVER ASSEMBLIES

- 2415 Secondary worm with primary worm gear assembled...
- 2416 Secondary worm gear shaft with slot stop pin assembled
- 2417 Hand feed knob, with hub and taper pin (old style with long hub).....

- 2418 Worm gear compartment cover with oil cups and dowel pins.....
- 2419 Arc feed main frame casting with dowel pins and oil cups
- 2420 Motor front end bell casting, bearing and oil cup assembled.....
- 2421 Motor rear end bell casting with bearing, oil cup, and brush holders assembled.....
- 2422 Motor armature complete.....
- 2423 Complete set of motor field coils with leads.....
- 2424 Arc feed motor complete with flexible coupling.....
- 2425 Arc feed complete with motor, gears, clutches, shafts, hand knob and pins assembled but less motor wire conduit casting.....
- 2426 Rheostat compartment cover with conduit elbow and screw.....
- 2427 Rheostat compartment cover complete with socket, socket leads, conduit, conduit elbow, switch and lever.....
- 2428 Motor speed control rheostat with knob complete....
- 2429 Motor rheostat knob and set screw.....
- 2430 Motor rheostat lead with tubing and terminal.....
- 2431 Pilot light switch lever complete.....
- 2432 Main terminal to motor fuse lead with tubing and terminal.....

PEERLESS MAGNARC ADAPTERS

- 2440 Complete Western Electric and Motio. De Luxe adapter with screws.....
- 2441 Complete power 6-B, E, adapter with screws.....

AMMETER ASSEMBLIES

- 2450 0-110 Ammeter only complete.....
- 2451 Meter cover and dial glass.....
- 2452 0-110 Ammeter shunt complete.....
- 2453 0-110 Ammeter complete with mounting bracket

EUROPEAN CONCESSIONAIRE

J. FRANK BROCKLISS LTD.

58 GREAT MARLBOROUGH STREET
LONDON, W. 1.

BRANCHES:

GLASGOW - - - 181, Howard Street	BIRMINGHAM - 110, John Bright St.
LEEDS - - - - - 67, Britannia House, Wellington Street	NEWCASTLE - - Crowe & Co., Ltd., 52, Stowell Street
MANCHESTER - 3, The Personage	CARDIFF - - - - J.O. Wyndham, Ltd.
DUBLIN - - - - - 204 Pearse Street	46, Charles Street

—AND—

BROCKLISS SIMPLEX S. A.

6, RUE GUILLAUME - TELL,
PARIS, FRANCE

BRANCH:

BRUXELLES - - - 61 Rue De Plante

LAUSANNE
AMSTERDAM

AGENCES
TURIN
MARSEILLE

LYON