

PATHEX, Inc.

A Subsidiary of Pathe Exchange, Inc.

35 West 45th St. New York City

SERVICE INFORMATION

TO assist you in the perfect enjoyment of your PATHEX projector, we offer the following suggestions as little helps in operating it in the proper manner.

Many projectors have been returned to us for repairs which we found only needed a small adjustment to put them into perfect working order.

In order to get the best results from your PATHEX projector, there are two things that you should always remember:

- (1) To verify and adjust the light, as explained in Chap. I.
- (2) To spin the film on the re-winder before threading, as explained in Chap. VIII.

Little difficulties that sometimes confront you and which to you might appear serious are, as a rule, only trifling and easily corrected by knowing just where to locate the trouble. This you can do yourself with the aid of the following suggestions instead of going to the trouble and expense of shipping the projector to us for repair.

I. INSUFFICIENT LIGHT

CAUSE:

- A: Lamp too high or too low.
- B: Distance between condenser and lamp incorrect.
- C: Socket out of shape.
- D: Handle lever of lamp rheostat too far on left.

Note: Every day that projector is used, illumination should be verified before projecting. To verify or adjust illumination, throw light on screen before threading film in projector.

REMEDY:

- A: Remove upper wire of socket by taking off thumb-nut. Raise or lower the socket by pushing up or down the round black bushing which is at the base of the socket. When proper light is obtained, tighten up and put wire and thumb-nut in place.
- B: If illumination is uneven in the center, the condenser lens should be closer or farther from the lamp. To push condenser back and forth, use clean chamois or handkerchief as finger marks show a haze on the screen.
- C: If dark zones show on right side of the screen, the split blades forming the top of the socket can be slightly bent with a screwdriver to the right until the filament is in the center of the condenser. If dark zones show on the left of the screen, bend blades of socket to the left.
- D: The stop finger of handle lever has chipped porcelain of rheostat plate which is in base of projector and allows handle to go too far to the left. Chipped portion can be repaired with Portland cement.

II. LAMP FAILS TO LIGHT OR BURNS OUT FAST

CAUSE:

- A: Filament is broken.
- B: Faulty connections.
- C: Plunger not working freely.

REMEDY:

- A: Replace by new lamp.

- B: Make sure wires are connected and tighten up thumb screws that hold wires to socket of lamp.
- C: Unscrew fibre bushing which holds lamp socket and carefully take out plunger without losing spring; polish sides of plunger with emery cloth (00 grade) until it moves freely in fibre bushing. Replace spring in bushing and also plunger; tighten with little nut and place whole in original position.

III. FILM FAILS TO GO DOWN IN TRACK

CAUSE:

- A: Film too tight in spool.
- B: Head out of alignment or not tight.
- C: Film not in track.
- D: Automatic stop embedded in dirt or lacking lubrication.
- E: Intermittent claw protruding insufficiently.
- F: Film gate does not stay shut.
- G: Guide-arms of take-up collar out of shape.
- H: Film perforations torn.

REMEDY:

- A: See "Faulty Spool," chapter VII.
- B: Loosen up thumb-nut; put head or top flush with housing and in line with film track then lock again firmly with thumb-nut.
- C: Run film back to notch and place film in track so that automatic stop fits inside of notch.
- D: Take off trigger plate; clean trigger and lubricate.
- E: Before attempting to bring the claw out further, one must be sure that it is really necessary. In most cases it is an error to think that the claw does not extend far enough. To ascertain whether claw extends far enough, put film in projector; run a little while, then stop projector making sure to stop when shutter darkens the screen (do not stop at a title or still picture); press film with finger underneath idle roller on top of film track and open gate with caution. If claw then does not protrude through the perforation of the film it can be adjusted by proceeding as follows: Take off head of projector; loosen large screw which is in the right

corner inside of the housing; this will release the round arm holding the tripping lever; slide horizontally that round arm so that it extends slightly outside of housing; tighten screw again.

- F: See "Lamp house does not close," chapter VII.
- G: Guide-arms should be bent back to be in alignment with collar so as not to press too much against the disc nor the glass cover.
- H: Either put patch on or make a regular splice (fully described in book of instruction).

IV. FILM DOES NOT WIND REGULARLY IN TAKE-UP CHAMBER

CAUSE:

- A: Rubber belt loose or broken.
- B: Lever arm of take-up or collar guide out of shape.
- C: Beginning of film too flat.
- D: Washer out of place.
- E: Screw of drum too loose.
- F: Spring of take-up axle too weak.

REMEDY:

- A: Open housing guard of pulleys; if belt is loose or broken replace by a new one.
- B: Take collar guide out of take-up chamber and bend back lever arm so it is not hampered by too close contact with the glass or white disc. See that ivory rollers turn freely; if not, roll same between fingers to loosen tightness. When replacing the retaining ring on top of glass see that concave or hollow part is outside.
- C: Roll tip of film between fingers in order to make it curl, so it will more easily encircle the form of the hub or drum.
- D: Lay projector flat on table; lift drum and place washer in center.
- E: Tighten screw of axle.
- F: Take off screw holding brass drum; extend by pulling slightly the little coil spring and put back in place.

V. TITLES RUN THROUGH WITHOUT STOPPING

CAUSE:

- A: Spring of automatic lever out of position or broken.
- B: Automatic stop hampered by dirt.

REMEDY:

- A: Remove head of projector and put spring back in position or replace if broken.
- B: Take off trigger plate; clean trigger and lubricate.

VI. FILM DOES NOT REWIND BACK.

CAUSE:

- A: Shaft of rewinder does not extend enough to engage the slot in center spool.
- B: Rewind handle or one of rewind gears loose.

REMEDY:

- A: Take off rewind head; loosen screw holding small gear; push forth axle so its bevelled end will engage rectangular opening of spool. Carefully put back screw in its right place. Turn handle reverse from rewinding motion and see if the shaft disengages the rectangular opening of the spool. If not, it has been pushed too far and should be set back a little.
- B: Tighten screw of affected part.

VII. LAMP HOUSE DOES NOT CLOSE.

CAUSE:

- A: Projector head out of alignment or not locked tight.
- B: Latch broken or bent.
- C: Hooks on projector head broken.
- D: Pressure frame has been bent.

REMEDY:

- A: Loosen thumb-nut of head and place head flush with housing and in line with film track, then lock firmly.
- B: If bent, take off cover of lamp house; unscrew latch; straighten out and put back in original place. If broken, replace by new one.
- C: Send projector back for repairs.
- D: Send projector back for repairs.

VIII. FAULTY FILM SPOOL

CAUSE:

- A: Reel bent or damaged.
- B: Film not wound straight inside spool.

REMEDY:

- A: Reel must be discarded and film rewound on new spool.
- B: Place spool on axle of rewinder on top of projector. Before threading film through film gate, turn the rewinder crank swiftly several times in order to make the film spin freely. If film refuses to spin freely, unwind it entirely on a table, then rewind and proceed again as above.

IX. MOTOR FAILS TO RUN OR SLOWS DOWN.

CAUSE:

- A: Dry bearings.
- B: Bearings too tight.
- C: Carbon brushes too tight.
- D: Brushes not making connections.
- E: Broken connections.
- F: Rubber pulley pressing too hard on projector fly-wheel.

REMEDY:

- A: Put drop of oil in cups (repeat after every 25 reels).
- B: Slightly loosen screws next to shaft on each side of motor until oil cups can be moved right and left without effort.
- C: Remove cover on side opposite to pulley and release tension of springs by bending same very slightly and carefully so that top of spring just passes edge of carbon brush.
- D: See that each carbon brush holder moves around freely on its axle.
- E: Motor should be returned with instructions to repair.
- F: Loosen screws on collar at base of motor and release pressure of spring which must never be excessive.