

PARTS LIST

Ref. No.	Part No.	DESCRIPTION	Ref. No.	Part No.	DESCRIPTION
1	PH-30	Center post	27	PH-175	Rear control bar bracket
2	PH-34	Selector rod	28	PH-177	Control bar hairpin clip
2A	PH-35	Selector pawl	29	PH-134	Idler pulley
3	PH-80	Turntable	30	PH-123	Control bar spring
4	PH-65-A	Front record holder	31	PH-38	Cycle shaft
4A	PH-102	Record holder lift	31A	PH-49	Lift cam
5	PH-214	Front record holder spring	31B	PH-167	Spring washer
6	PH-66	Front record holder link	31C		Pickup arm positioning finger
7	PH-65-B	Rear record holder	32	PH-92	Stiffening plate
8	PH-214	Rear record holder spring	32A	PH-103	Friction spring
9	PH-67	Rear record holder link	32B		Discriminator guide
10	PH-72	Pickup arm bracket	32C	PH-96	Shutoff lever
10A	PH-119	Pickup arm adjustment screw	33		Shutoff lever spring
11	PH-77	Pickup arm	34	PH-44	Cycle disc bracket
12		Pickup arm lift rod	35	PH-105	Start pawl
13	PH-99	Pickup cartridge	36	PH-166	Spacer bar
14	PH-62	Pickup arm base	37	PH-89	Control bar assembly
14A	PH-63	Discriminator pawl	37A	PH-172	Discriminator arm
14B	PH-64	Discriminator link	37B	PH-171	Cycle arm
14C	PH-69	Record holder boss	37C	PH-170	Switch arm
15	PH-75	Control base	37D	PH-169	Start arm
15A	Part of 15	Off button	38	PH-174	Front control bar bracket
15B	Part of 15	Reject button	39		Pickup arm return spring bracket
15C	PH-143	Spring clamp	40	PH-71	Trip spring
16	PH-100	Base plate	41	PH-52	Trip lever plate
16A	PH-134	Idler pulley	42	PH-74	Pickup arm return spring
17		Idler wheel	43	PH-53	Trip lever
17A		Idler wheel retaining clip	44	PH-87	Record holder weight
17B		Idler wheel tension spring	45	PH-39	Cycle disc
18		Motor	45A	PH-42	Cycle pawl
18A		Drive sleeve	45B	PH-40	Selector drive pin
19	PH-134	Idler pulley	46		Center post adjusting screw lock nut
20	PH-47	Slide lever assembly	47	PH-179	Center post adjusting screw
20A	PH-105	Start pawl	48		Center post lock screw
21	PH-45	Center post bracket	49		Shutoff lever
22	Part of 24	Bearing thrust washers	50	PH-161	Discriminator spring
23	PH-104	Record holder cord	51	PH-93	Changer switch
24	PH-33	Ball bearing assembly	52	PH-51	Trip pin
25	PH-197	Selector rod spring	53	PH-88	Drive tire
26	PH-60	Turntable bearing	54	PH-119	Pickup arm set-down adjustment screw

UNIVERSAL CAMERA CORP.
MODEL 100



TOP VIEW WITH RECORDS

GENERAL INFORMATION

This changer is of the "postless" type in that the records are supported during operation by the center spindle only. It is designed to play twelve 10-inch, ten 12-inch, or an intermixed stack of not more than ten records. The changer shuts off automatically upon completion of the last record. Records are not dropped to the turntable, but are lowered by a slide in the centerpost. The motor is designed for 115-volt, 60-cycle operation.

LOADING—Place the desired number of records on the spindle. Grasp the record holder lift (4A) and pull upward until the record holders (4) and (7) are in position on top of the record stack. Press the Reject button (15B) to start the changer.

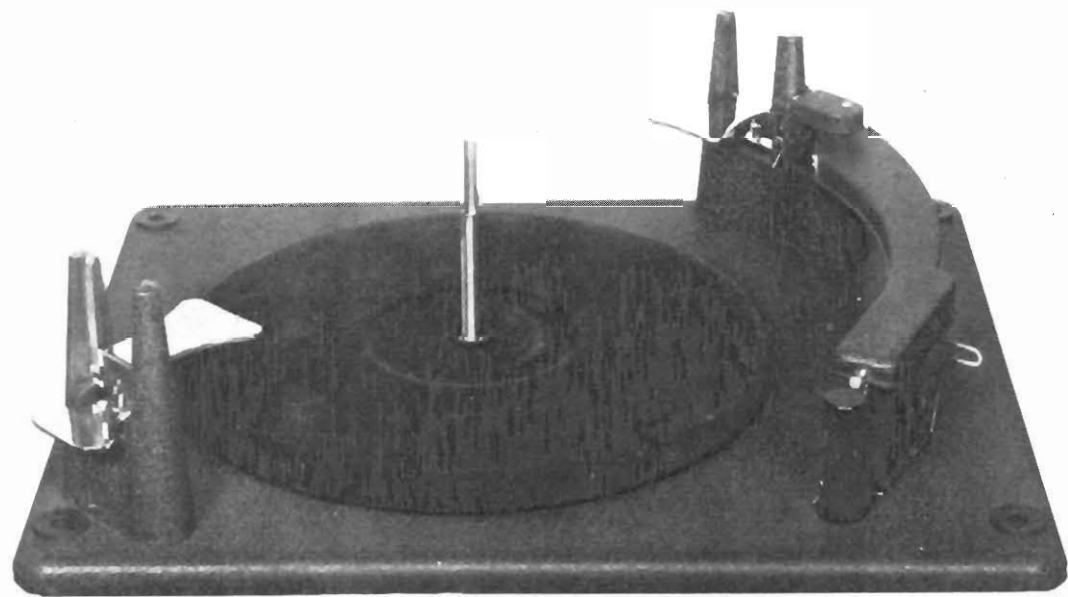
UNLOADING—Lift the entire stack from the turntable at one time. The record holders will bend up and allow the records to pass.

Manufactured by
UNIVERSAL CAMERA CORPORATION, 28 West 23rd Street, New York 10, New York

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UNIVERSAL CAMERA CORP.
MODEL 100

Page One



TOP VIEW

THE CHANGE CYCLE

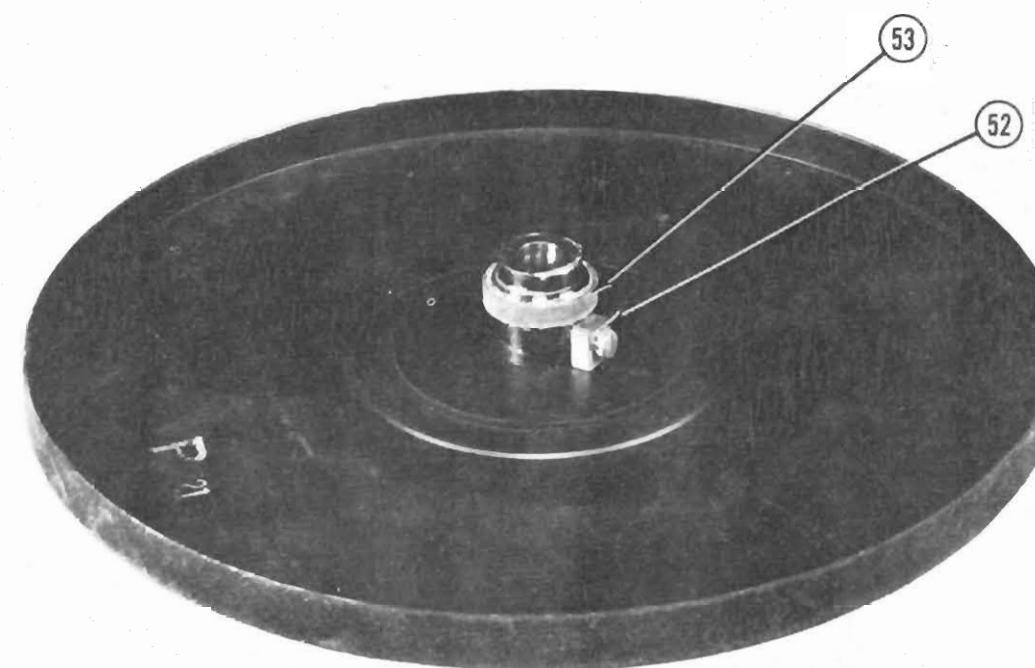
The change cycle is started by depressing the reject button (15B) or by a velocity trip mechanism. As the pickup arm moves toward the center of the record, it carries the trip lever (43) with it. The trip lever contacts the cycle pawl (45A) and begins to force its upper end upward so that it engages a projection on the turntable hub. However, unless this action is completed within one turntable revolution, as it would be with the pickup arm needle in the eccentric groove, the cycle pawl is struck by the turntable hub projection and moved away from the tripping point. The trip lever is not affected because of its connection to the pickup arm by the trip spring (40).

When the cycle pawl engages the hub projection, the turntable starts to rotate the cycle disc (45). As soon as the cutaway segment of the cycle disc passes the drive tire on the turntable hub, the tire engages and drives the disc.

The cycle disc drives the cycle shaft (31) which rotates the lift cam (31A). The lift cam raises the pickup arm from the record by means of the pickup arm lift rod (12). The end of the cycle shaft is bent to form the pickup arm positioning finger (31C). This finger engages the trip lever plate (41) and swings the pickup arm clear of the stack of records.

As this action has been taking place, the selector drive pin (45B) on the cycle disc (45) has raised the selector rod (2) by means of the slide lever assembly (20).

The selector rod pawl (2A) engages the lowest record of the unplayed stack, pushes it off the center post and begins to lower it to the turntable. When the record is lowered to the turntable, the pickup arm positioning finger (31C) engages the pickup arm return spring (42) and swings the arm into its set-down point. The pickup arm is lowered to



TURNTABLE UNDERSIDE

TROUBLES—Continued

Failure to Shut Off After Last Record

1. Record holder cord adjustment too short. Adjust by reclamping behind weight (44). Both sides (6) and (9) should hit bottom at the same time.
2. Bent or broken arm return spring (42).
3. Bent or missing shutoff lever (32C).

Incorrect Pickup Set-Down Position

1. Minor adjustment may be made by loosening the set-down point adjusting screw (54) and repositioning the arm. This screw is on the inside of the arm near the pivot and clamps a small plate. Adjustment is best made when the mechanism is at the point of the change cycle where the arm is about to descend on the record.
2. If the adjustment screw (54) does not

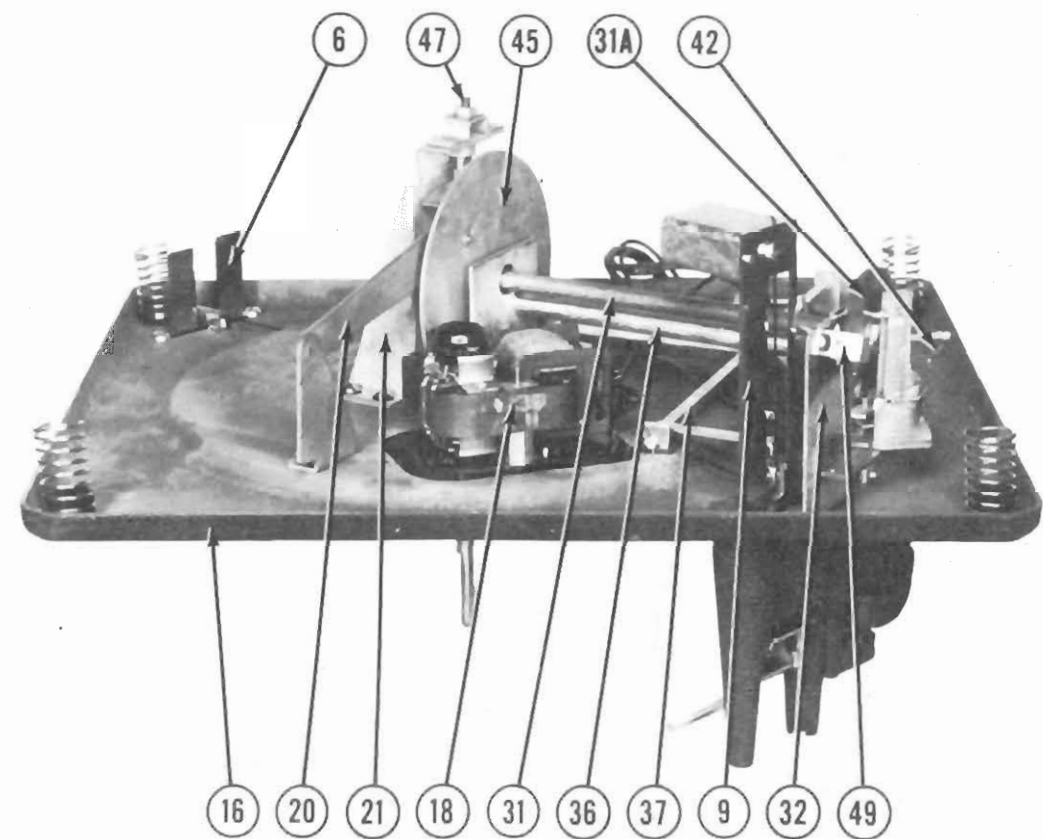
give a wide enough range of adjustment, it will be necessary to loosen the set screws in the trip plate collar (part of 41) and turn the shaft (12) to the proper position.

Discriminator Fails to Function

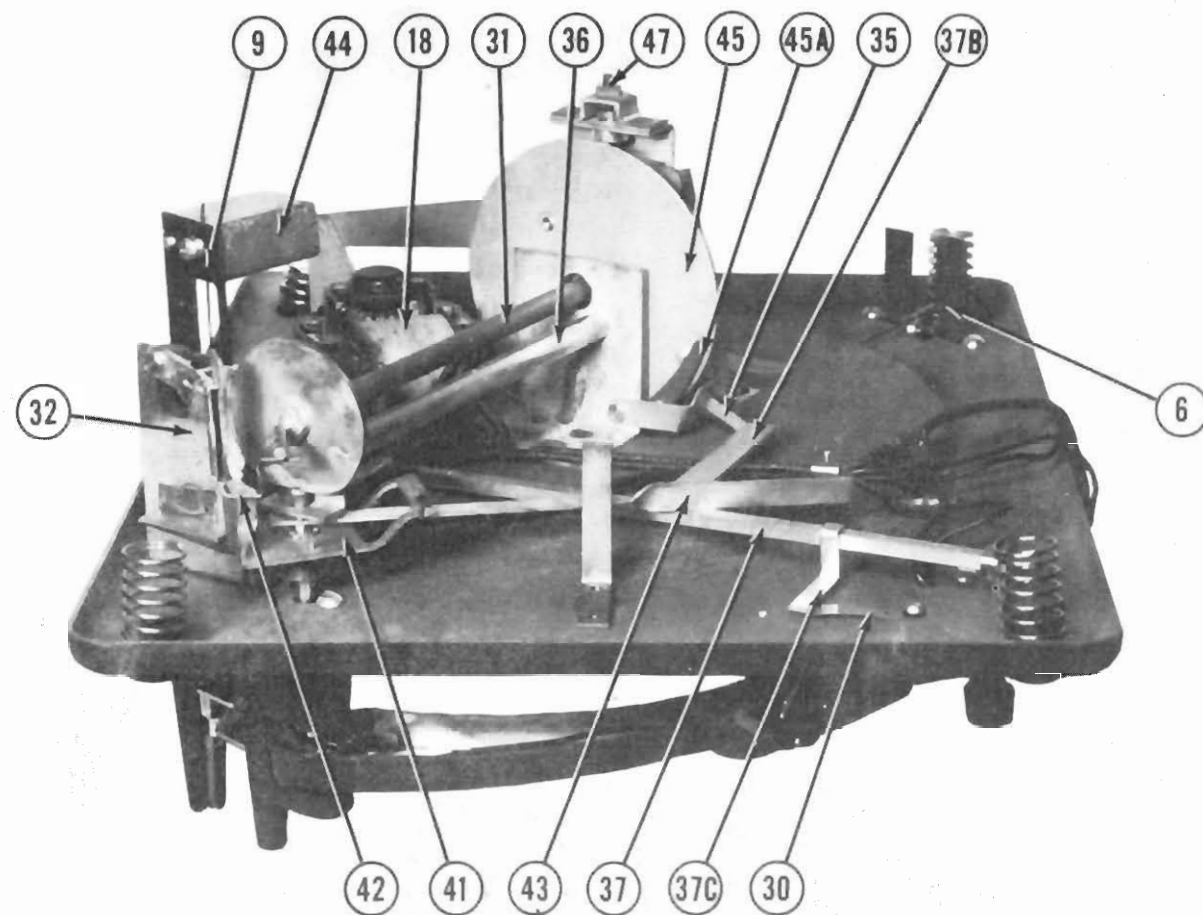
1. Discriminator spring (50) broken or missing.
2. Trip plate (41) too high on shaft (12) will cause all setdowns to be for 12-inch record regardless of record to be played.
3. Trip plate (41) too low on shaft (12) will cause all setdowns to be for 10-inch record regardless of record to be played.

Pickup Arm Height Incorrect During Cycle

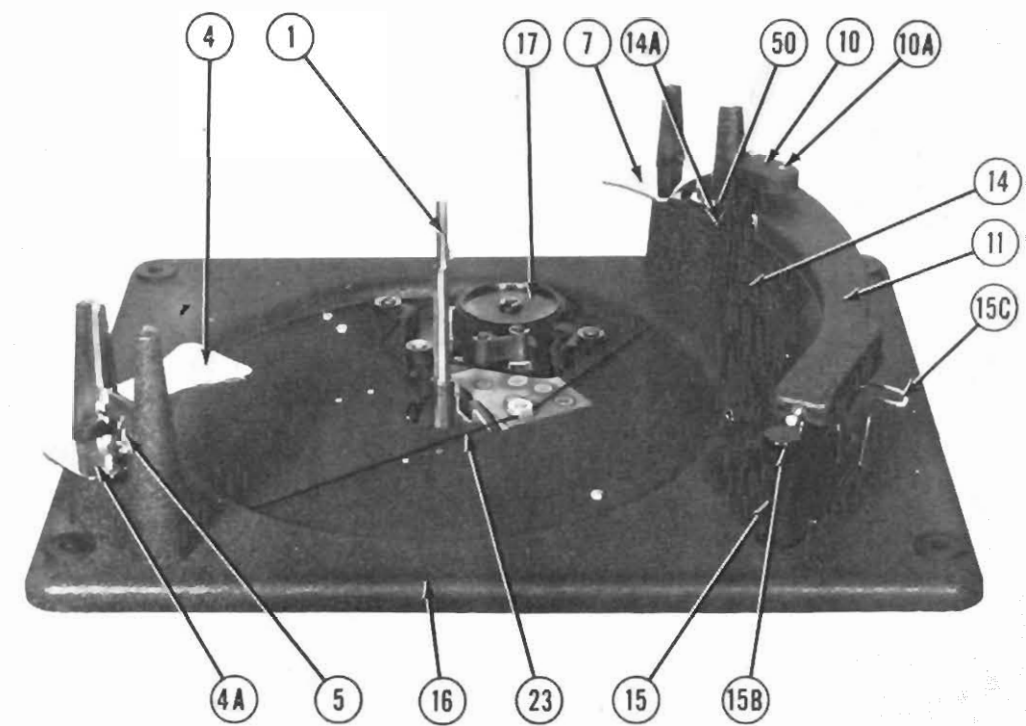
1. This is adjusted by turning the pickup arm adjustment screw (10A). Clockwise rotation will raise the arm; counterclockwise rotation will lower it.



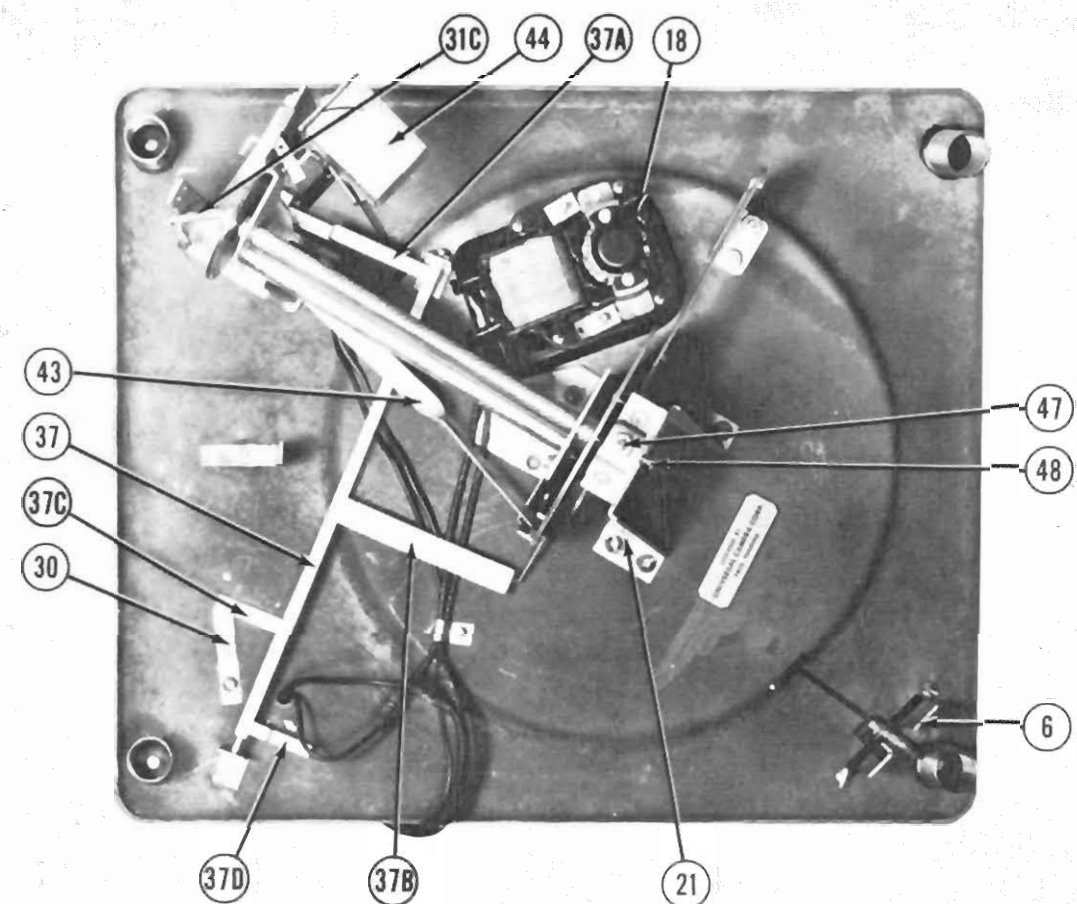
REAR VIEW



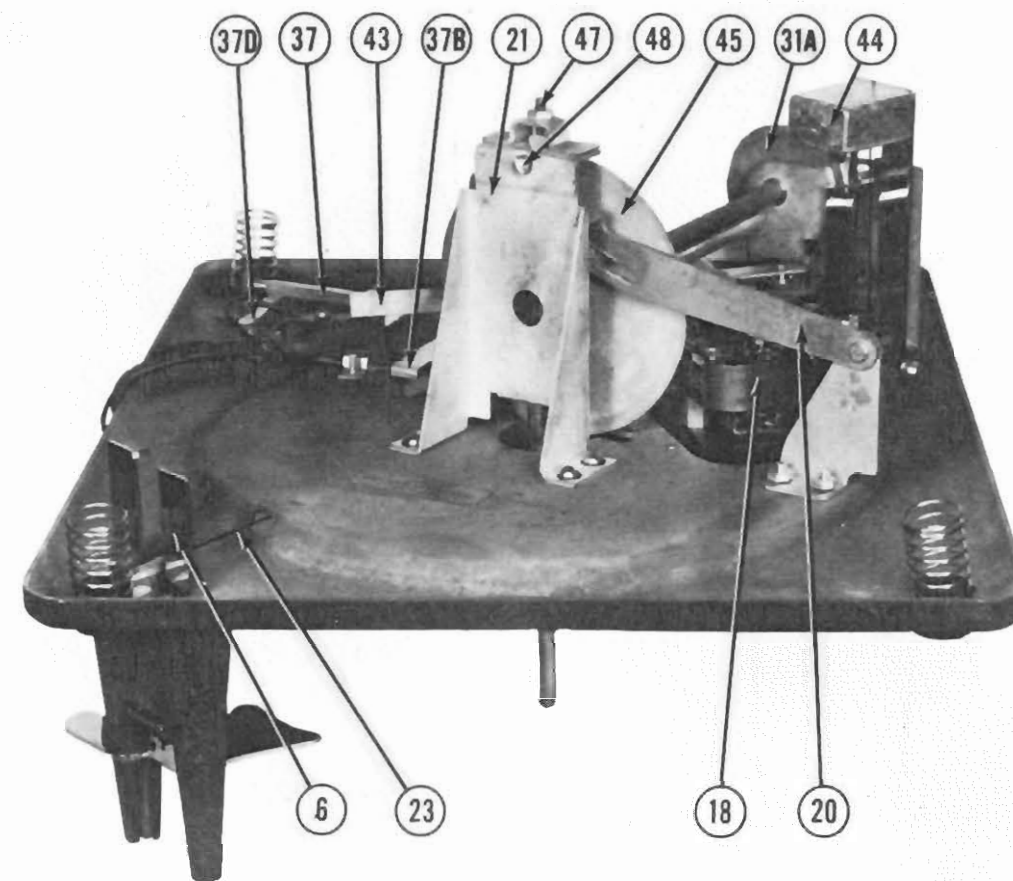
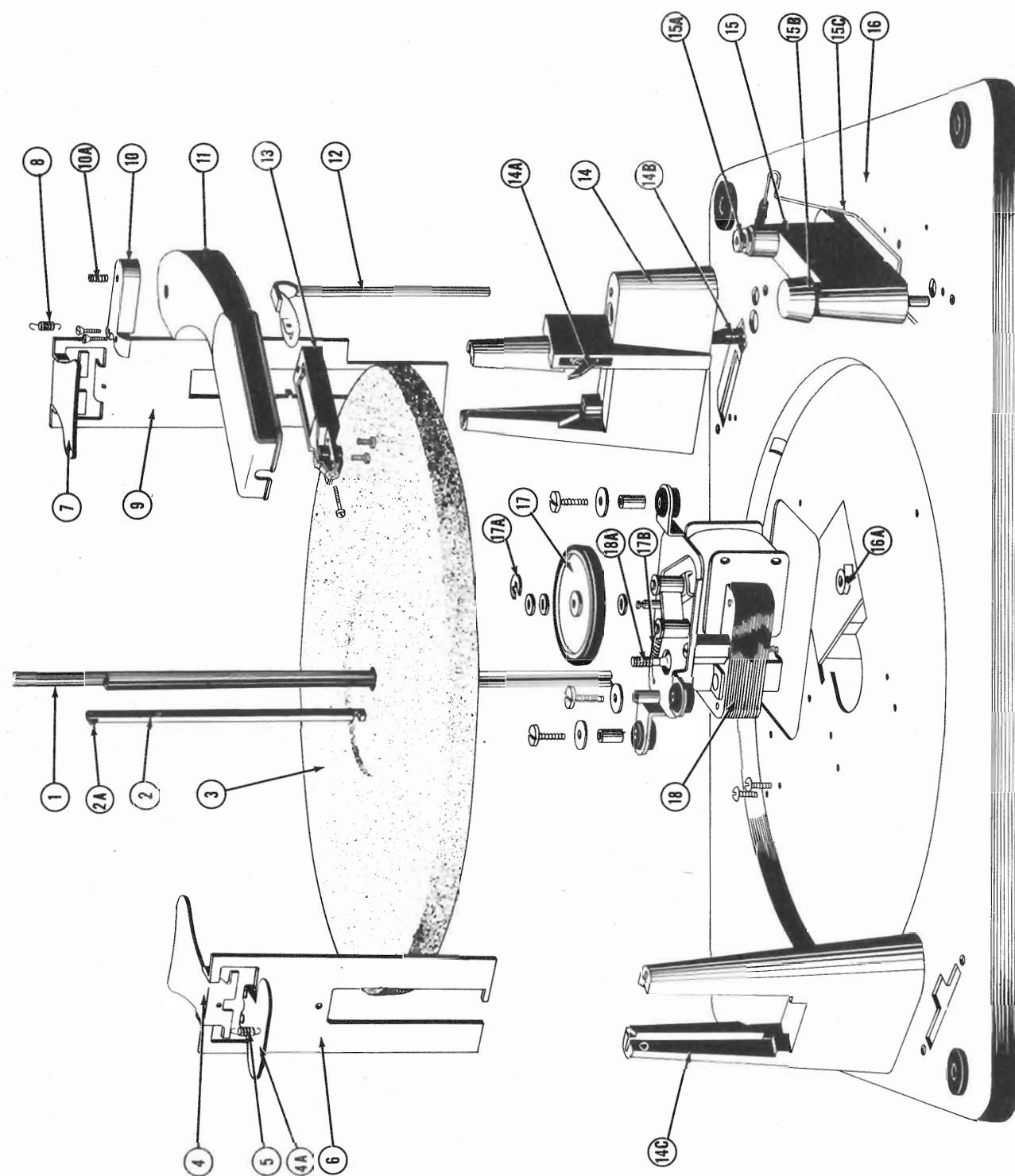
RIGHT SIDE VIEW



TOP VIEW LESS TURNTABLE



BOTTOM VIEW



LEFT SIDE VIEW

REJECT MECHANISM

The reject mechanism serves to start the changer for the first record of a stack as well as to reject an unwanted record. When the reject button (15B) is pressed, the start arm (37D) is actuated and, in turn, actuates the control bar (37). As the control bar moves, it, in turn, actuates the cycle pawl (45A) by means of the cycle arm (37B); actuates the control switch (51) by means of the switch arm (37C), and resets the discriminator link (14B) by means of the discriminator arm (37A).

The control bar is held in normal position by the control bar spring (30) which bears against the switch arm.

TROUBLES

Failure to Lower Record

1. Failure of operator to raise record holder lift (4A) after loading.
2. Record too thick.

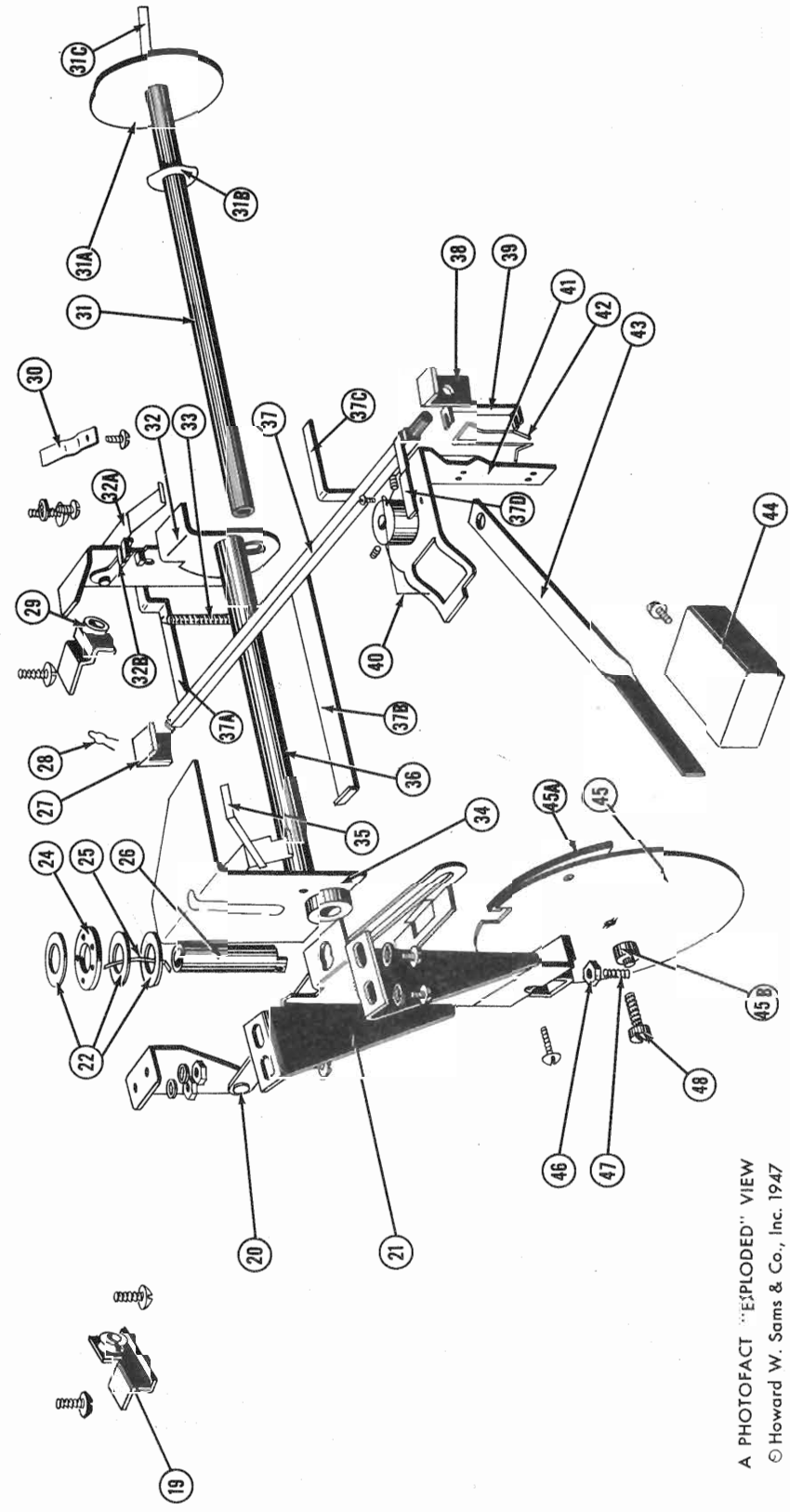
3. Center post incorrectly adjusted. If set too high, the record will not be pushed off the step. To adjust, loosen lock screw (49) and lock nut (46); back off screw (47) not more than one-quarter turn at a time. Push center post down and tighten clamp screw and lock nut. If post is too low, record center holes will be damaged.

Failure to Cycle Upon Completion of Record

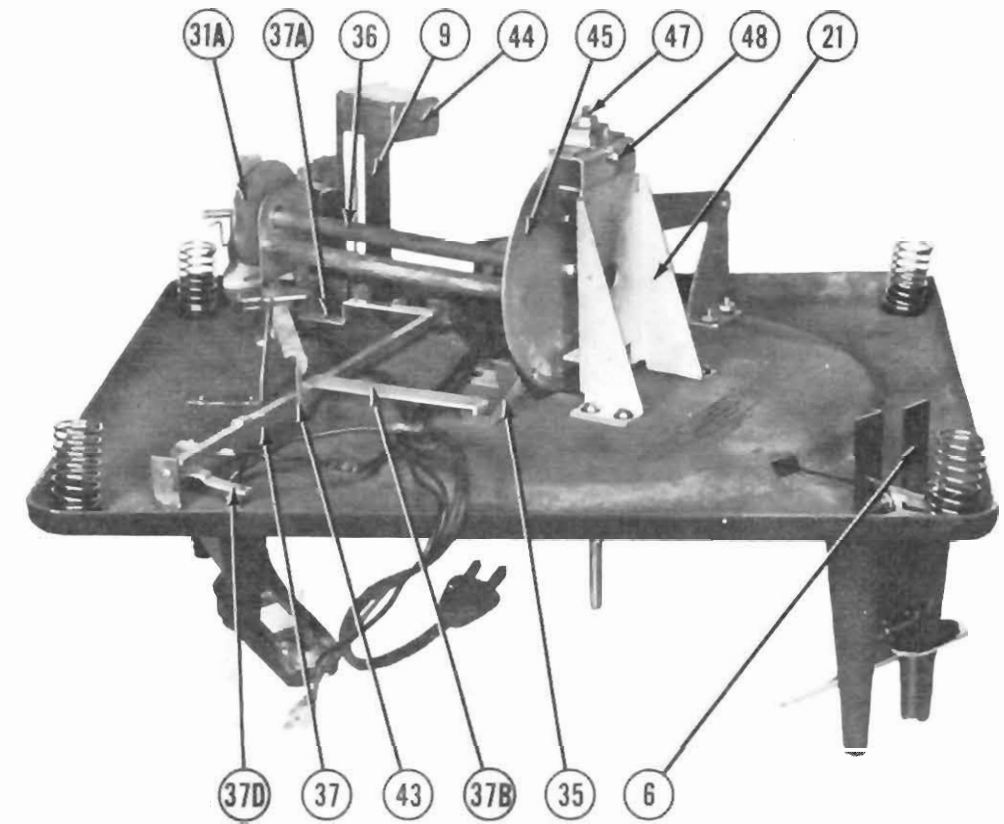
1. Cycle pawl (45A) binding.
2. Drive tire (53) on turntable hub slipping.
3. Trip pin (52) missing.

Cycles Before Playing Record or Cycles Continuously

1. Cycle pawl (54A) binding.
2. Trip pin (51) loose or incorrectly mounted. Note position of pin in view of turntable hub.
3. Trip spring (40) out of position; not in notch on trip plate (41).



A PHOTOFACT "EXPLODED" VIEW
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FRONT VIEW

the record by the lift cam (31A) and the cut-away segment of the cycle disc (45) comes into position opposite the hub drive tire, thus ending the change cycle.

INTERMIX ACTION

The set-down point is changed for either ten- or twelve-inch records by the discriminator mechanism. If the record being lowered is a twelve-inch, it trips the discriminator pawl (14A), releasing the discriminator link (14B). This link then drops to a position where it limits the travel of the trip lever plate assembly (41) and the attached pickup arm. In the case of a ten-inch record, the link does not drop and the arm completes its travel to the innermost set-down point.

The action of the discriminator link in stopping the arm movement does not stall the mechanism since the trip lever plate is driven by the positioning finger (31C) through the

return spring (42). At the beginning of each change cycle, the discriminator mechanism is reset by the upward action of the trip lever plate against the discriminator link.

AUTOMATIC SHUTOFF

As long as unplayed records are in position on the changer, the record holders (4) and (7) prevent the record holder links (6) and (9) from reaching the bottom point of their travel. When the last record has been lowered to the turntable, the rear record holder link (9) depresses the shutoff lever (49). The shutoff lever engages the lower end of the pickup arm return spring (42) and swings it aside so that the pickup arm does not move in to the set-down point. Instead, the arm is lowered in its outermost position directly over the "off" button of the control assembly, thus turning the unit off.