

SINGER

72W12

Form 1619w—Revised
July, 1930
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DO NOT REMOVE

LIST OF PARTS



MACHINE NO. 72w12

—
** A TRADE MARK OF

THE SINGER MANUFACTURING COMPANY

From the library of: Superior Sewing Machine & Supply LLC

INSTRUCTIONS FOR OILING

To ensure easy running and prevent unnecessary wear of the parts which are in movable contact, the machine requires oiling and when in continuous use, "TYPE B" or "TYPE D" OIL, sold only by Singer Sewing Machine Company, should be applied at least twice each day to all oil holes marked "OIL".

"TYPE D" OIL is stainless.

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Instructions for Ordering

In ordering from this list, use **ONLY** the **PART** number in the **FIRST** column.

The number stamped on a Sewing Machine Part is the number of the Single Part only, except when the part includes Set Screws, Clamping Screws, Studs and Rollers Spun on, Small Wires riveted, or Parts soldered together, etc., which it is necessary to furnish in combination.

Every combination of parts sent out has its specific number which, although not stamped on Parts (except in above cases) must be used when ordering the combination.

Each number always indicates the **SAME PART** in whatever list it appears, or for whatever Machine.

The letters after some of the numbers indicate the style of finish only, as follows:

- A. Hardened, Polished and Plated.
- B. Polished and Plated.
- C. Hardened only.
- D. Polished only.
- E. Soft, not polished.
- F. Hardened and Polished.
- H. Blued.

These letters **MUST BE USED** when they appear in the list and **AFTER** the number, as in the list.

In this series

200001 to 201500 are Screw Numbers.

201501 to 201800 are Nut Numbers.

201801 to 202000 are Roller Numbers.

202001 and upwards are Numbers of Machine Parts.

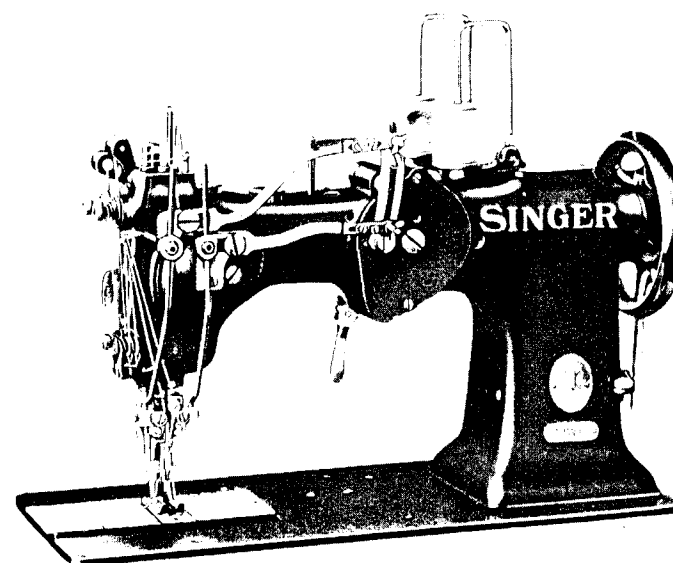
The figures in the second column refer only to the plate in which the illustration of the part is shown and are **NOT TO BE USED** in ordering.

Two or more numbers over a cut indicate that the difference between such parts is not visible in an illustration.

Parts marked with an asterisk (*) are furnished only when repairs are made at the factory.

LIST OF PARTS COMPLETE

FOR



MACHINE No. 72w12

For Ornamenting Shirt Waists, Corners of Handkerchiefs, etc. with $\frac{1}{8}$ in. Hemstitch Openings in Straight or Curved Lines or Circles. Has Forward Feed

No.	Plate	Name
*234705	—	Arm with 202036, 234706, two each 200346c and 213222
204163	12344	Arm Cap
200278H	12311	" " Screw
202248	12307	" " " Washer
213257	13401	" Plate
200571B	11090	" " Screw (2)
204235	—	" Position Pin (2)
200010E	13402	" Screw (3)
202005	12308	" " Washer (3)
203237	11636	" Shaft
204801	13401	" " Bushing (back) with 200260

No.	Plate	Name
202260	—	Arm Shaft Bushing (back) Oil Packing (wick)
200352c	11635	Arm Shaft Bushing (back) Set Screw
204802	13401	Arm Shaft Bushing (front) with 202036 and 202260
202260	—	Arm Shaft Bushing (front) Oil Packing (wick)
200502B	11635	Arm Shaft Bushing (front) Oil Packing Thumb Screw
202036	13402	Arm Shaft Bushing (front) Position Pin
200352c	11635	Arm Shaft Bushing (front) Set Screw
204804	13401	Arm Shaft Connection with four 200054e (2)
200054E	12307	Arm Shaft Connection Screw
234738	13406	Auxiliary Piercer
234714	13406	" " Holder with 200117F and 200389c
213261	11097	Auxiliary Piercer Holder Bracket with two 200118F
200118F	13402	Auxiliary Piercer Holder Bracket Screw
200117F	11097	Auxiliary Piercer Holder Screw ..
200389c	11642	" " Set Screw
204174	11636	Balance Wheel, 5½ in. diam. (belt groove 2¾ in. diam.), with 200328c and 200335c
200062H	12311	Balance Wheel Adjusting Screw ..
200328c	12311	" " Position Screw
200335c	12311	" " Set Screw
*213235	—	Bed with 203376, 202349, 213191, two each 200362c, 200516E, 200840E and 202299
202258	12153	Bed Hinge Connection (2)
200570E	12311	" " " Screw (4)....
203329	13401	" Slide (back)
203301	13401	" " (front)
213710	11635	Bobbin
203210	12312	" Case Base with 202056, 203211 to 203213 and 203216 ...
203211	12312	Bobbin Case Base Latch
*202056	—	" " " " Pin
203212	12312	" " " " Plunger ..
203213	12312	" " " " Spring
203209	12312	" " " Cap with 200984c, 203211, 203215 and two 200594c

No.	Plate	Name
203214	12312	Bobbin Case Tension Spring
200984c	12312	" " " " Regulating Screw
200594c	12312	Bobbin Case Tension Spring Screw
203215	12312	" " Thread Guide
200594c	12312	" " " " Screw ..
203216	12312	" " Washer (cloth)
203217	12312	Bobbin Case complete, Nos. 203209 and 203210
213945	11636	Face Plate with 200355H, 203751, 207069, two each 200368H, 202090, 204281 and three 200397H
200053c	12311	Face Plate Screw
203751	13429	" " Thread Guide
200397c	13404	" " " " Set Screw
213946	11636	Face Plate complete, Nos. 200098F, 200318H, 202108, 213213, 213214, 213267, 213935, 213941 to 213945, 219866, 219867, 225604, 228026, two each 200089H, 200290c, 203753 and 204059
213789	11090	Feed Bar with 204189
213765	—	" " 213789 with 200214E, 201525E, 201535E, 204200 and 350219E
200214E	13402	Feed Bar Hinge Screw
201525E	13402	" " " " Nut
214424	13429	" " Spring
204189	11635	" " " Hook
212827	13406	" Dog
200106E	12311	" " Screw (2)
350219E	13429	" " Support Screw
201535E	11090	" " " " Nut
206206	13401	" Driving Cam and Gear, 54 teeth, with two 200383c
206609	—	Feed Driving Cam and Gear Driving Gear, 18 teeth
213218	11090	Feed Driving Cam and Gear Driving Gear 206609 with two 200348c
200348c	11090	Feed Driving Cam and Gear Driving Gear Set Screw
201816	12307	Feed Driving Cam and Gear Roller
201850	11090	" " " " " "
		201816 with 200820c
200820c	11635	Feed Driving Cam and Gear Roller Stud
201517E	11090	Feed Driving Cam and Gear Roller Stud Nut

No.	Plate	Name
200383c	12311	Feed Driving Cam and Gear Set Screw
213233	11097	Feed Driving Cam and Gear Shaft
213245	13401	" " " " " "
		Bracket
200036E	11090	Feed Driving Cam and Gear Shaft Bracket Screw (3)
230743	—	Feed Driving Cam and Gear Shaft Bracket Screw Washer (3)
213172	11636	Feed Driving Rock Shaft
213167	11636	" " " " 213172 with 200002E, 201522E and 204193
202305	12307	Feed Driving Rock Shaft Center (2)
200043c	12311	" " " " " Set Screw (2)
204193	13401	Feed Driving Rock Shaft Connection with 200668c and 201525E ..
200002E	13402	Feed Driving Rock Shaft Connection Hinge Screw
201522E	13402	Feed Driving Rock Shaft Connection Hinge Screw Nut
204200	11635	Feed Driving Rock Shaft Crank with 204189 (on left side) and two 200383c
200383c	12311	Feed Driving Rock Shaft Crank Set Screw
213188	13403	Feed Driving Segment Lever with 213391 and 222526
215700	11635	Feed Driving Segment Lever Clamp with 200031F
215702	—	Feed Driving Segment Lever Clamp 215700 with 215701
215701	11635	Feed Driving Segment Lever Clamp Block
200031F	12311	Feed Driving Segment Lever Clamp Pinch Screw
200668c	13402	Feed Driving Segment Lever Clamp Screw Stud
201525E	13402	Feed Driving Segment Lever Clamp Screw Stud Nut
203741	—	Feed Driving Segment Lever Crank with two 200363c
213246	11097	Feed Driving Segment Lever Crank 203741 with 201517E and 201850..
200363c	11635	Feed Driving Segment Lever Crank Set Screw
*213391	11635	Feed Driving Segment Lever Shaft
222526	13429	" " " " " "

No.	Plate	Name
213809	11101	Feed Driving Segment Lever Shaft Sleeve (split) (left)
204196	12307	Feed Driving Segment Lever Shaft Sleeve (split) (right)
200043c	12311	Feed Driving Segment Lever Shaft Sleeve Set Screw (2)
201524E	13404	Feed Driving Segment Lever Shaft Sleeve Set Screw Nut (2)
213234	11097	Feed Lifting Cam with 204020 and two 200383c
200383c	12311	Feed Lifting Cam Set Screw
213796	13403	" " Rock Shaft
203321	—	" " " " 213796 with 203238
202305	12307	Feed Lifting Rock Shaft Center (2)
200043c	12311	" " " " " Set Screw (2)
234717	13429	Feed Lifting Rock Shaft Lever with 200049E and 201807
204020	—	Feed Lifting Rock Shaft Lever Cushion (leather)
200049E	13402	Feed Lifting Rock Shaft Lever Pinch Screw
201822	—	Feed Lifting Rock Shaft Lever Roller
201807	13429	Feed Lifting Rock Shaft Lever Roller 201822 with 200261F
200261F	13410	Feed Lifting Rock Shaft Lever Roller Screw Stud
202276	12308	Feed Lifting Rock Shaft Slide Block
203238	12308	Feed Lifting Rock Shaft Slide Block 202276 with 200243E and 201531E
200243E	13402	Feed Lifting Rock Shaft Slide Block Hinge Screw
201531E	12308	Feed Lifting Rock Shaft Slide Block Hinge Screw Nut
204206	13402	Feed Regulating Handle
204713	13403	" " " 204206 with 200098E, 202622, 204208, 204209, 204213, 204714 and 204925
204208	12307	Feed Regulating Handle Adjustable Stop
200098F	12307	Feed Regulating Handle Adjustable Stop Screw
204925	13402	Feed Regulating Handle Adjustable Stop Screw Washer
204209	12307	Feed Regulating Handle Position

No.	Plate	Name
204714	13402	Feed Regulating Handle Shaft
204211	13402	" " " "
		Crank with 200098F
204212	12307	Feed Regulating Handle Shaft
		Crank Link
200271E	12311	Feed Regulating Handle Shaft
		Crank Link Hinge Screw (lower)
200291E	12307	Feed Regulating Handle Shaft
		Crank Link Hinge Screw (upper)
200098F	12307	Feed Regulating Handle Shaft
		Crank Set Screw
204213	12307	Feed Regulating Handle Shaft
		Sleeve (split)
200362c	12311	Feed Regulating Handle Shaft
		Sleeve Set Screw
202622	13402	Feed Regulating Handle Shaft
		Sleeve Washer
202036	13402	Feed Regulating Handle Stop Pin
204715	—	Feed Regulating Handle complete,
		Nos. 200291E, 204211, 204212 and
		204713
*203239	—	Hook (sewing)
203240	12312	" 203239 with 201253F, 201376F
		and 203251
203290	12312	Hook and Bobbin Case complete,
		Nos. 203217 and 203240
203241	12312	Hook Bevel Gear Socket, 24 teeth
200555H	12312	" " " " Screw ...
203242	12344	" " Pinion, 24 teeth, with
		two 200383c (2)
200383c	12311	Hook Bevel Pinion Set Screw
203306	13403	" Counter Shaft
203244	12308	" " " Collar with two
		200393c
200393c	12308	Hook Counter Shaft Collar Set
		Screw
203245	12344	Hook Counter Shaft Driving Gear,
		44 teeth, with 200362c and 200439c
200439c	12311	Hook Counter Shaft Driving Gear
		Position Screw
200362c	12311	Hook Counter Shaft Driving Gear
		Set Screw
203246	12344	Hook Counter Shaft Gear, 22 teeth,
		with two 200383c
200383c	12311	Hook Counter Shaft Gear Set Screw
202299	—	" " " Oil Packing
		(wick)
200840E	12311	Hook Counter Shaft Oil Packing
		(wick) Stop Screw

No.	Plate	Name
213230	11636	Hook Driving Shaft
213191	13403	" " " Bearing with
		202299
202299	—	Hook Driving Shaft Bearing Oil
		Packing (wick)
202126	12308	Hook Driving Shaft Bearing Posi-
		tion Pin
200516E	12311	Hook Driving Shaft Bearing Screw
203249	12344	" " " Bushing (eccen-
		tric)
202299	—	Hook Driving Shaft Bushing Oil
		Packing (wick)
200362c	12311	Hook Driving Shaft Bushing Set
		Screw
213141	11635	Hook Driving Shaft Collar with
		two 200393c
200393c	12308	Hook Driving Shaft Collar Set
		Screw
203251	12312	Hook Gib
201376F	13402	" " Hinge Screw
201253F	13429	" " Screw
203307	12335	" Saddle with 202299
202299	—	" " Oil Packing (wick) ...
200006E	12307	" " Screw (4)
225585	12307	" " " Washer (4)
203254	12312	" Washer
203308	12335	Hook Saddle complete, Nos.
		200555H, 203241, 203254, 203290
		and 203307
203462	—	Hook Saddle Combination com-
		plete, Nos. two 203308
203746	13403	Knee Lifter Connection Lever
227443	—	" " " " 203746
		with 203749, 227309 and two
		200262H
200262H	13429	Knee Lifter Connection Lever
		Hinge Screw
227309	13430	Knee Lifter Connection Lever Lift-
		ing Rod with 202302
202302	13402	Knee Lifter Connection Lever Lift-
		ing Rod Cotter Pin
215352	11642	Knee Lifter Connection Lever Lift-
		ing Rod Spring
227227	11642	Knee Lifter Connection Lever Lift-
		ing Rod Spring Collar with
		200113F
200113F	12308	Knee Lifter Connection Lever Lift-
		ing Rod Spring Collar Set Screw

No.	Plate	Name
203748	13430	Knee Lifter Lifting Lever
203749	—	" " " " 203748 with 227447 and two 200110B ...
200262H	13429	Knee Lifter Lifting Lever Hinge Screw
213244	11098	Needle Bar (hollow)
213387	13403	" " 213244 with 201206F, 213256 and 213398
213222	13402	Needle Bar Bushing (2)
200346C	13402	" " " Set Screw (2)
204248	12307	" " Connecting Link
200658C	12307	" " " "
		Hinge Screw Stud
201519E	12307	Needle Bar Connecting Link Hinge Screw Stud Nut
204249	12308	Needle Bar Connecting Stud with 200072C and 202277
202277	—	Needle Bar Connecting Stud Oil Packing (wick)
200072C	12308	Needle Bar Connecting Stud Pinch Screw
221480	13402	Needle Bar Guide with 200086C ..
200086C	12308	" " " Pinch Screw ...
213256	13429	" " Thread Guide
234715	13429	" Holder (left) with two 200117F
234716	13429	Needle Holder (right) with two 200117F
213236	13429	Needle Holder Bracket
213398	—	" " " 213236 with 234715, 234716, two each 200797C, 201183F, 201537H and 225604 ...
201206F	13410	Needle Holder Bracket Screw
201183F	13429	" " Cap Screw
200797C	13429	" " Stud
201537H	12319	" " " Nut
225604	13402	" " " Washer
200117F	11097	" Set Screw
221474	13403	" Vibrating Cam and Gear, 48 teeth
221473	—	Needle Vibrating Cam and Gear 221474 with 200079H and 213276
221477	—	Needle Vibrating Cam and Gear 221473 with 200062H and 213203
200062H	12311	Needle Vibrating Cam and Gear Adjusting Screw
221470	13404	Needle Vibrating Cam and Gear Driving Gear, 16 teeth, with two 200079H

No.	Plate	Name
200383C	12311	Needle Vibrating Cam and Gear Driving Gear Set Screw
213802	11098	Needle Vibrating Cam and Gear Segment Lever with 201809, 204928 and 215691
234706	—	Needle Vibrating Cam and Gear Segment Lever Bushing
204922	13429	Needle Vibrating Cam and Gear Segment Lever Connecting Link (lower or upper)
204841	—	Needle Vibrating Cam and Gear Segment Lever Connecting Link 204922 with 204923
204923	11642	Needle Vibrating Cam and Gear Segment Lever Connecting Link Bushings (2)
200110B	13404	Needle Vibrating Cam and Gear Segment Lever Connecting Link Screw
204924	13404	Needle Vibrating Cam and Gear Segment Lever Connecting Link Screw Washer
213241	11098	Needle Vibrating Cam and Gear Segment Lever Connection (lower) with 214005
213242	11098	Needle Vibrating Cam and Gear Segment Lever Connection (upper) with 214005
213243	11098	Needle Vibrating Cam and Gear Segment Lever Connection Bracket
213277	—	Needle Vibrating Cam and Gear Segment Lever Connection Bracket 213243 with 213241, 213242, two each 201275D, 204841, 204924, 213265 and four 200110B
200571B	11090	Needle Vibrating Cam and Gear Segment Lever Connection Bracket Screw (lower)
200574E	11642	Needle Vibrating Cam and Gear Segment Lever Connection Bracket Screw (upper)
200791E	13404	Needle Vibrating Cam and Gear Segment Lever Connection Screw Stud Slide (2)
228026	13406	Needle Vibrating Cam and Gear Segment Lever Connection Screw Stud Slide Washer (2)

No.	Plate	Name
201581	13404	Needle Vibrating Cam and Gear Segment Lever Connection Screw Stud Slide Wing Nut (2)
213265	11100	Needle Vibrating Cam and Gear Segment Lever Connection Slide Block
201275D	13410	Needle Vibrating Cam and Gear Segment Lever Connection Slide Block Screw
206505	11100	Needle Vibrating Cam and Gear Segment Lever Connection Stop Block
200135E	42	Needle Vibrating Cam and Gear Segment Lever Connection Stop Block Screw
225908	11100	Needle Vibrating Cam and Gear Segment Lever Connection Stop Block Screw Washer
206008	—	Needle Vibrating Cam and Gear Segment Lever Connection Stop Block complete, Nos. 200135E, 206505 and 225908 (2)
*214005	—	Needle Vibrating Cam and Gear Segment Lever Connection Stud with 204020
201816	12307	Needle Vibrating Cam and Gear Segment Lever Roller
201809	13404	Needle Vibrating Cam and Gear Segment Lever Roller 201816 with 202556
202556	—	Needle Vibrating Cam and Gear Segment Lever Roller Stud
*204928	—	Needle Vibrating Cam and Gear Segment Lever Shaft
202574	11635	Needle Vibrating Cam and Gear Segment Lever Shaft Collar with 200380c
200380c	12319	Needle Vibrating Cam and Gear Segment Lever Shaft Collar Set Screw
215691	11642	Needle Vibrating Cam and Gear Segment Lever Shaft Position Pin
213203	13403	Needle Vibrating Cam and Gear Stud
201501D	13404	Needle Vibrating Cam and Gear Stud Nut
200343c	13404	Needle Vibrating Cam and Gear Stud Set Screw

No.	Plate	Name
213240	11100	Needle Vibrating Lever (2)
213250	11100	" " " Bearing (left)
234704	11100	Needle Vibrating Lever Bearing (right)
204020	—	Needle Vibrating Lever Friction (leather)
200117F	11097	Needle Vibrating Lever Set Screw
213825	13406	Piercer
213260	13403	" Bar
214003	—	" " 213260 with 213262 and 221481
221481	13404	Piercer Bar Bushing (lower)
200352c	11635	" " " " Set Screw
213262	11100	Piercer Bar Bushing (upper)
200352c	11635	" " " " Set Screw
213248	11100	Piercer Bar Driving Cam with two 200362c
213258	11100	Piercer Bar Driving Cam Connection with 200057H and 200066D...
213247	11642	Piercer Bar Driving Cam Connection 213258 with 200128E, 213248 and 213740
247563	—	Piercer Bar Driving Cam Connection Crank with 200070c
221461	11642	Piercer Bar Driving Cam Connection Crank 247563 with 200740c and 201520H
200740c	11101	Piercer Bar Driving Cam Connection Crank Ball Screw
201520H	11101	Piercer Bar Driving Cam Connection Crank Ball Screw Nut
200070c	11642	Piercer Bar Driving Cam Connection Crank Pinch Screw
200057H	13404	Piercer Bar Driving Cam Connection Pinch Screw
200066D	11642	Piercer Bar Driving Cam Connection Pinch Screw
213740	11101	Piercer Bar Driving Cam Retaining Washer
200128E	11642	Piercer Bar Driving Cam Retaining Washer Screw
200362c	12311	Piercer Bar Driving Cam Set Screw
213249	11101	" " Lifting Bracket with two 201052c
201052c	13429	Piercer Bar Lifting Bracket Set Screw

No.	Plate	Name
213804	13403	Piercer Bar Lifting Rock Shaft ...
215720	11642	" " " " " Bush- ing (2)
200043c	12311	Piercer Bar Lifting Rock Shaft Bushing Set Screw (2)
201524E	13404	Piercer Bar Lifting Rock Shaft Bushing Set Screw Nut (2)
204197	11635	Piercer Bar Lifting Rock Shaft Collar with 200113F
200113F	12308	Piercer Bar Lifting Rock Shaft Collar Set Screw
213255	11098	Piercer Bar Lifting Rock Shaft Crank with 201812, 205532 and 213804
214004	13405	Piercer Bar Lifting Rock Shaft Crank 213255 with 213249
205532	13429	Piercer Bar Lifting Rock Shaft Crank Position Pin
201812	11642	Piercer Bar Lifting Rock Shaft Crank Roller and Stud
213253	11101	Piercer Holder with 200117F
200076D	11642	" " Screw
200117F	11097	" Set Screw
213791	13405	Presser Bar (hollow)
204252	12308	" " Lifter
200550c	12311	" " " Hinge Screw ..
202179	13429	" " Lifting Bracket with 200387c
204254	12307	Presser Bar Lifting Bracket Posi- tion Guide
200362c	12311	Presser Bar Lifting Bracket Posi- tion Guide Set Screw
200387c	13429	Presser Bar Lifting Bracket Set Screw
204327	—	Presser Bar Packing Washer (felt)
200504E	13404	" " Screw Bushing (lower)
204255	13404	" " Spring
200491B	12344	" " Thumb Screw (pres- sure regulating)
200436F	13404	Presser Foot Adjusting Screw ...
200086F	12308	" " " " Clamp Screw
221479	13404	Presser Foot Hinge Pin
229685	13404	" " " Stud
200397H	13404	" " " " Set Screw
229706	13407	" " Plate (left)
229707	13407	" " " (right)
206653	14214	" " Shank (left) with

No.	Plate	Name
229775	14214	Presser Foot Shank 206653 with 221479 and 229706
229796	13407	Presser Foot Shank (right) with 200086F
229776	14214	Presser Foot Shank 229796 with 221479 and 229707
200086F	12308	Presser Foot Shank (right) Set Screw
229674	13407	Presser Foot Spring
202737	13404	" " " Collar with 200380c
200380c	12319	Presser Foot Spring Collar Set Screw
229711	14214	Presser Foot (hinged) (narrow) complete, Nos. 229685, 229775 and 229776
213276	11103	Presser Foot Vibrating Cam
200079H	12311	" " " " Screw
213269	11103	" " " Collar and Plunger Socket with 200526c ..
200526c	11103	Presser Foot Vibrating Collar and Plunger Socket Set Screw
214009	13405	Presser Foot Vibrating Collar and Plunger Socket complete, Nos. 200199D, 201525E, 201822, 213269, 213270 and 213273 to 213275
213274	11103	Presser Foot Vibrating Engaging Lever with 200141F and 201609 ..
213270	11103	Presser Foot Vibrating Engaging Lever Plunger with 204020
204020	—	Presser Foot Vibrating Engaging Lever Plunger Cushion (leather)
201822	—	Presser Foot Vibrating Engaging Lever Plunger Roller
200199D	11103	Presser Foot Vibrating Engaging Lever Plunger Roller Screw Stud
201525E	13402	Presser Foot Vibrating Engaging Lever Plunger Roller Screw Stud Nut
213275	11103	Presser Foot Vibrating Engaging Lever Plunger Spring
*201609	—	Presser Foot Vibrating Engaging Lever Swivel Stud
200141F	11103	Presser Foot Vibrating Engaging Lever Swivel Stud Set Screw ..
213273	11103	Presser Foot Vibrating Engaging Lever Washer Spring
213271	13430	Presser Foot Vibrating Lever with 201812, 203325 and 213813

No.	Plate	Name
201829	11642	Presser Foot Vibrating Lever Roller
201813	—	Presser Foot Vibrating Lever Roller 201829 with 200274c
200274c	11642	Presser Foot Vibrating Lever Roller Screw Stud
213813	—	Presser Foot Vibrating Lever Shaft
203325	13429	" " " " " " Position Pin
227447	11103	Presser Foot Vibrating Shoe
200110B	13404	" " " " " Screw
202068	12153	Spool Holder Base
204551	11636	" " " " " Bracket (for two spools)
200257D	13404	Spool Holder Base Bracket Screw
204552	11636	Spool Holder Base Bracket complete, Nos. 204551, two each 200575H and 204297
200575H	12311	Spool Holder Base Screw
204296	12153	" " Wire
200079H	12311	" " " Hinge Screw
204297	12153	Spool Holder complete, Nos. 200079H, 202068 and 204296
212920	—	Take-up Cam with 200335c and 200430c
203268	13405	Take-up Cam 212920 with 200383c, 200658c and 201519E
203172	12307	Take-up Cam Friction Washer
200430c	12311	" " Position Screw
200383c	12311	" " " " " Check Screw
200335c	12311	Take-up Cam Set Screw
203311	13404	" Lever
221454	—	" " 203311 with 204263 ..
204263	13404	" " Bearing with 204264 ..
204264	13429	" " " Position Pin ...
200042F	12311	" " " Screw
201816	12307	" " Roller
203312	13404	Take-up Lever complete, Nos. 200042F, 201816 and 221454
244007	13429	Tension Disc
202090	13429	" " Position Pin
213267	11101	" Release Cam
200290c	13406	" " " Screw
207069	13429	" " " Position Pin ..
213213	13406	" " Lever
200290c	13406	" " " Screw
213214	13406	" " " Spring
200318H	13406	" " " " " Screw ...
202075	13429	" " Plunger

No.	Plate	Name
203750	13431	Tension Release Slide
206608	13429	" " " Spring
13710	13429	" Spring
200632H	13429	" Stud
200397H	13404	" " Set Screw
201572H	10881	" Thumb Nut
204271	13429	" Washer
203753	13429	Tension complete, Nos. 13710, 200632H, 201572H, 202075, 204271 and two 244007
213934	11644	Thread Controller Bracket
213935	—	" " " 213934 with 200152H, 213937 to 213939, two each 200315H, 202098, 213936 and four 213940
202108	13404	Thread Controller Bracket Position Pin
200098F	12307	Thread Controller Bracket Screw
213936	11644	" " Plate
202098	11644	" " Roller
213937	11644	" " " Guard (back)
213938	11644	" " " " (front)
213939	11644	" " " " Clamp
200152H	11644	" " " " " Screw
213940	11644	Thread Controller Roller Guard Clamp Screw Washer
200315H	11644	Thread Controller Roller Screw ..
219866	11644	" " Spring (back)
219867	11644	" " " (front)
213942	11644	" " " Adjusting Collar (back)
200089D	11635	Thread Controller Spring Adjusting Collar (back) Clamp Screw ..
225604	13402	Thread Controller Spring Adjusting Collar (back) Clamp Screw Washer
213941	11644	Thread Controller Spring Adjusting Collar (front) with 200397H
200397H	13404	Thread Controller Spring Adjusting Collar (front) Set Screw ...
213943	11644	Thread Controller Spring Stop (adjustable)
200089D	11635	Thread Controller Spring Stop Screw
213944	11644	Thread Controller Spring Stud
200355H	12319	" " " " " Set Screw

No.	Plate	Name
228026	13406	Thread Controller Spring Stud Washer
203313	13406	Thread Guide
204459	13406	" " (2)
204281	13431	" Retainer Guide Wire
202091	13431	" " Sleeve
202092	13431	" " Spring (spiral)
204058	13431	" " Stud
200368H	13431	" " " Set Screw
204059	13431	Thread Retainer complete, Nos. 202091, 202092 and 204058
212826	13406	Throat Plate with 212863 and two 200587D
200161D	12319	Throat Plate Clamp Screw
212863	13406	" " Needle Guard
200587D	13406	" " " " Screw
203376	13431	" " Position Pin
200577H	12311	" " Screw

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ACCESSORIES

No.	Plate	Name
234738	13406	Auxiliary Piercer
213710	11635	Bobbin (10)
*225482	—	" Case Screw Driver Blade ..
*225483	—	" " " " Handle ..
225497	12153	Bobbin Case Screw Driver complete, Nos. 225482 and 225483 ..
225486	13410	Needle Holder Stud Nut Wrench.
213825	13406	Piercer
213828	13406	"
234702	—	Tweezers
130 x 3	—	Needles, twelve, size 10
228213	—	Drip Pan with four 1 in. wire nails
41400	12153	Machine Rest Pin (wood)
120342	12153	Oiler (copper plated) with 120343
120343	12153	" Spout, 3½ in. long
*225484	—	Screw Driver Blade
*225485	—	" " Handle
225498	12153	Screw Driver complete (7¼ in. long), Nos. 225484 and 225485 ..
225554	12153	Wrench (steel)

BOBBIN WINDER

Swing Automatic, Right Hand

225453	10884	Frame with 202277 and 225438
225454	10884	" Hinge Pin
202277	—	" Oil Packing (wick)
225438	10884	" " Well Cap
225455	10884	" Spring
225456	10884	" " Plunger
202473	10885	Pulley with 200380C
200380C	12319	" Set Screw
225381	10884	Spindle
225444	10884	Stop Latch
200056E	10884	" " Screw
225458	10884	" " Thumb Lever
225459	10884	" " " " Hinge Stud
225459	10884	" " " " Joint Stud
202478	10884	" " Trip Lever
200299H	10884	" " " " Hinge Screw

No.	Plate	Name
225461	10881	Tension Bracket with 201499a ...
200082b	10881	" " Screw
228026	13406	" " " Washer
2102	10881	" Disc
202407	10881	" Spring
201499b	10881	" Stud
201572b	10881	" " Thumb Nut
225462	10881	Bobbin Winder Tension Bracket complete, Nos. 201572b, 202407, 225461 and two 2102
225433	10885	Bobbin Winder and Tension Bracket Base
225382	10885	Universal Bobbin Winder complete, Nos. 200056f, 200082b, 200299h, 202473, 202478, 225381, 225433, 225444, 225453 to 225456, 225458, 225462, 228026, two each 225459 and wood screws $\frac{3}{4}$ in., No. 12, R.H.B.

KNEE LIFTER

2763	14171	Rock Shaft
7539	14171	" " Hanger (back) with two wood screws 1 in., No. 10 ..
20093	14171	Rock Shaft Hanger (front) with two wood screws 1 in., No. 10 ..
2765	14171	Rock Shaft Knee Arm
2768	—	" " " " 2765 with 2766 and 2767
2766	14171	Rock Shaft Knee Arm Hub with 356c
356c	14171	Rock Shaft Knee Arm Hub Set Screw
2767	14171	Rock Shaft Knee Plate with 356c ..
356c	14171	" " " " Set Screw
228238	14171	" " Lifting Lever with 356c ..
228239	—	" " " " 228238 with 8073, 204225, 228240 and 228241 ..
228240	14171	Rock Shaft Lifting Lever Rod (3 in. long)
200529c	14171	Rock Shaft Lifting Lever Rod Set Screw
228241	14171	Rock Shaft Lifting Lever Rod Swivel with 200529c
204225	14171	Rock Shaft Lifting Lever Rod Swivel Spring
8073	14171	Rock Shaft Lifting Lever Rod Swivel Spring Plunger

No.	Plate	Name
356c	14171	Rock Shaft Lifting Lever Set Screw
2770	14171	" " Stop Dog with 356c ...
356c	14171	" " " " Set Screw ..
228242	14171	Rock Shaft complete, Nos. 2763, 2768, 7539, 20093, 228239 and two 2770

(Other Knee Lifter Parts are listed with parts of machine head.)

PRESSER FEET

200436f	13404	Presser Foot Adjusting Screw
200086f	12308	" " " " Clamp Screw
221479	13404	Presser Foot Hinge Pin
229685	13404	" " " Stud
200397h	13404	" " " " Set Screw
229706	13407	" " Plate (left)
229707	13407	" " " (right)
206653	14214	" " Shank (left) with 200086f, 200397h and 200436f ..
229775	12414	Presser Foot Shank 206653 with 221479 and 229706
229796	13407	Presser Foot Shank (right) with 200086f
229776	14214	Presser Foot Shank 229796 with 221479 and 229707
200086f	12308	Presser Foot Shank (right) Set Screw
229711	14214	Presser Foot (hinged) (narrow) complete, Nos. 229685, 229775 and 229776
200436f	13404	Presser Foot Adjusting Screw
200086f	12308	" " " " Clamp Screw
221479	13404	Presser Foot Hinge Pin
229685	13404	" " " Stud
200397h	13404	" " " " Set Screw
229706	13407	" " Plate (left)
229835	—	" " " (right)
229672	—	" " Shank (left) with 200086f, 200397h and 200436f ..

No.	Plate	Name
229772	13431	Presser Foot Shank 229672 with 221479 and 229706
229796	13407	Presser Foot Shank (right) with 200086F
229836	—	Presser Foot Shank 229796 with 221479 and 229835
200086F	12308	Presser Foot Shank (right) Set Screw
229837	13407	Presser Foot (hinged) complete, Nos. 229685, 229772 and 229836 ..

PIERCERS

234737	13406	Auxiliary Piercer
234738	13406	" "
213825	13406	Piercer
213828	13406	"

Note: Nos. 213825, 213828 and 234738
made for 11 stitches and 234737 for 13
stitches to the inch.

CORD HOLDER

213289	11098	Cord Holder
200809B	11097	" " Screw

HEMMERS

No.	Plate	Name
230192	11649	Hemmer on Shank, for hems from $\frac{1}{8}$ to $\frac{1}{2}$ inch

Note: State width required on order.

HEMMER (REVERSE)

230190	11649	Hemmer on Shank, for hems from $\frac{1}{8}$ to $\frac{1}{2}$ inch
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Note: State width required on order.

HEMMER

(Right Hand)

Folds $\frac{1}{16}$ in. Hem

230940	14606	Base Plate with 225706
225706	13410	" " Position Pin
200246B	13410	" " Screw
201525E	13402	" " " Nut
225708	13410	" " Spring
230713	11650	Folder on Shank
200187B	13410	" " " Screw
230484	13410	" " " " Washer
230714	11651	Tongue with two 200133B
200133B	13410	" Screw
230711	11652	Hemmer complete, Nos. 200246B, 201525E, 225708, 230484, 230940, 230713, 230714 and two 200187B..

HEMMER

(Right Hand)

Folds $\frac{3}{8}$ in. Hem

230940	14606	Base Plate with 225706
225706	13410	" " Position Pin
200246B	13410	" " Screw
201525E	13402	" " " Nut
225708	13410	" " Spring
230715	11650	Folder on Shank
200187B	13410	" " " Screw
230484	13410	" " " " Washer
230716	11651	Tongue with two 200103D
200103D	13410	" Screw
230712	11652	Hemmer complete, Nos. 200246B, 201525E, 225708, 230484, 230715, 230716, 230940 and two 200187B..

HEMMER

(Right Hand) (Small Opening)

Folds $\frac{1}{8}$, $\frac{3}{8}$ and $\frac{1}{4}$ in. hems

Note: State width of hem required

No.	Plate	Name
230940	14606	Base Plate with 225706
225706	13410	" " Position Pin
200246B	13410	" " Screw
201525E	13402	" " " Nut
225708	13410	" " Spring
230532	14608	Folder on Shank
200187B	13410	" " " Screw
230484	13410	" " " " Washer
230533	14608	Tongue with two 200133B
200133B	13410	" Screw
230535	14609	Hemmer complete, Nos. 200246B, 201525E, 225708, 230484, 230532, 230533, 230940 and two 200187B..

HEMMER

(Right Hand)

Folds Hems from $\frac{1}{8}$ to $2\frac{1}{2}$ in., in steps of $\frac{1}{8}$ inch

Note: State width of hem required

230940	14606	Base Plate with 225706
225706	13410	" " Position Pin
200246B	13410	" " Screw
201525E	13402	" " " Nut
225708	13410	" " Spring
230540	11650	Folder on Shank
200187B	13410	" " " Screw
230484	13410	" " " " Washer
230539	11651	Tongue with two 200103D
200103D	13410	" Screw
230542	14609	Hemmer complete, Nos. 200246B, 201525E, 225708, 230484, 230539, 230540, 230940 and two 200187B..

HEMMER (REVERSE)

(Right Hand)

Folds Hems from $\frac{1}{4}$ to $2\frac{1}{2}$ in., in steps of $\frac{1}{4}$ inch

Note: State width of hem required

230756	11651	Base Plate with 225706
225706	13410	" " Position Pin
200246B	13410	" " Screw
201525E	13402	" " " Nut
225708	13410	" " Spring

No.	Plate	Name
230537	14608	Folder on Shank
200187B	13410	" " " Screw
230484	13410	" " " " Washer
230536	14608	Tongue with two 200103D
200103D	13410	" Screw
230538	11652	Hemmer (reverse) complete, Nos. 200246B, 201525E, 225708, 230484, 230536, 230537, 230756 and two 200187B

HEMMER (ADJUSTABLE)

(Right Hand)

Folds Hems from $\frac{1}{2}$ to $2\frac{1}{4}$ inches

230940	14606	Base Plate with 225706
225706	13410	" " Position Pin
200246B	13410	" " Screw
201525E	13402	" " " Nut
225708	13410	" " Spring
230519	14606	Bracket (lower) with two 200078D
200158B	13410	" " Screw
230484	13410	" " Washer
230521	14606	" (upper) with 200462B and two 200160B
200078D	12307	Bracket (upper) Screw
230518	14606	Folder Arm and Guard (left)
200160B	13410	" " " " Screw
230520	14606	" and Arm (right)
200462B	13410	" " " " Adjustable Thumb Screw
226163	13410	Folder and Arm (right) Adjustable Thumb Screw Washer
230523	14606	Tongue (left) with two 200164B ..
200164B	13410	" " Screw
230522	14606	" (right) with two 200164B ..
200164B	13410	" " Screw
230525	14609	Hemmer (adjustable) complete, Nos. 200246B, 201525E, 225708, 226163, 230484, 230518 to 230523, 230940 and two 200158B

HEMMER (REVERSE) (ADJUSTABLE)

(Right Hand)

Folds Hems from $\frac{1}{2}$ to $2\frac{1}{2}$ inches

230529	14607	Base Plate with 225706
225706	13410	" " Position Pin
200246B	13410	" " Screw
201525E	13402	" " " Nut

No.	Plate	Name
225708	13410	Base Plate Spring
230528	14607	Folder Arm and Guard (left) with two 200155F
200187B	13410	Folder Arm and Guard (left) Screw
230484	13410	" " " " " "
		Washer
230526	14607	Folder and Arm (right) with two 200155F
200469B	13410	Folder and Arm (right) Adjustable Thumb Screw
226163	13410	Folder and Arm (right) Adjustable Thumb Screw Washer
230530	14607	Tongue (left)
230527	14607	" (right)
200155F	13410	" Screw
230531	14609	Hemmer (reverse) (adjustable) complete, Nos. 200246B, 200469B, 201525E, 225708, 226163, 230484, 230526 to 230530 and two 200187B

HEMMER (ADJUSTABLE)

(Left Hand)

Folds Hems from $\frac{1}{2}$ to $2\frac{1}{4}$ inches

230516	14605	Base Plate with 225706
225706	13410	" " Position Pin
200246B	13410	" " Screw
201525E	13402	" " Nut
225708	13410	" " Spring
230515	14605	Bracket (lower) with two 200078B
200158B	13410	" " Screw
230484	13410	" " Washer
230514	14605	" (upper) with 200462B and two 200160B
200078B	12307	Bracket (upper) Screw
230510	14605	Folder Arm and Guard (right)
200160B	13410	" " " " Screw
230511	14605	" and Arm (left)
200462B	13410	" " " " Adjustable Thumb Screw
226163	13410	Folder and Arm (left) Adjustable Thumb Screw Washer
230512	14605	Tongue (left) with two 200164B ..
200164B	13410	" " Screw
230513	14605	" (right) with two 200164B
200164B	13410	" " Screw
230517	14609	Hemmer (adjustable) (left hand) complete, Nos. 200246B, 201525E, 225708, 226163, 230484, 230510 to 230516 and two 200155F

BOX PLAITER

(ADJUSTABLE)

No.	Plate	Name
230001	14526	Base Plate
230002	14526	" " Arm Bracket with two 200344C
200344C	14527	Base Plate Arm Bracket Adjusting Screw
200048B	14527	Base Plate Arm Bracket Screw ...
230003	14526	" " Cloth Guide (left)
230004	14526	" " " " (right)
200169B	14527	" " " " Screw
200048B	14527	" " Screw
230005	14527	Folder Blade (left) (adjustable) ..
230006	14527	" " (right) (adjustable) ..
230007	14526	" " Plate
200344C	14527	" " " Adjusting Screw
200053B	12311	" " " Screw
200169B	14527	" " Screw
230008	14527	Presser Foot
230009	14528	Space Gauge (left)
230010	14528	" " (right)
230011	14528	" " Adjustable Slide (left)
230012	-	" " " " 230011 with 200176B, 200186B, 202603 and 230009
230013	14528	Space Gauge Adjustable Slide (right)
230014	14529	Space Gauge Adjustable Slide 230013 with 200176B, 200186B, 202603 and 230010
200186B	14527	Space Gauge Screw (long)
202603	14527	" " " " Washer
200176B	14527	" " " " (short)
200472B	14527	" " Thumb Screw
202603	14527	" " " " Washer
230015	14529	Box Plaiter (adjustable) complete, Nos. 200472B, 202603, 230001 to 230008, 230012, 230014, two 200053B, four 200169B and five 200048B

LAP SEAM FELLER

(ADJUSTABLE)

For Joining Lace to Cloth or Two Pieces of Cloth with
Double Hemstitch

No.	Plate	Name
230258	14581	Folder on Shank (left)
230259	14581	" " " (right)
230260	14581	" Base Plate
200157B	13410	" " " Screw
200170B	13410	" Screw
230261	14581	Lap Seam Feller (adjustable) complete, Nos. 230258 to 230260 and two 200170B

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OBSOLETE PARTS

No.	Plate	Name
202470	12320	Bobbin Winder Base
202471	12320	" " Frame
202472	12319	" " Spring
202474	12320	" " Spindle
227522	12319	" " Stop Latch
202477	12319	" " " " Thumb Lever
227523	12320	Bobbin Winder complete, Nos. 200056E, 200161D, 200221D, 201537H, 202470 to 202474, 202477, 202478, 227522, three 200299H and two round head wood screws 1 in., No. 13
202480	12320	Bobbin Winder Spool Holder Base with 200355H and 202484
202481	12320	Bobbin Winder Spool Holder Base Spool Pin
202482	12319	Bobbin Winder Spool Holder Ten- sion Disc (lower or upper)
202483	12319	Bobbin Winder Spool Holder Ten- sion Disc Spring (brass)
202484	12319	Bobbin Winder Spool Holder Ten- sion Disc Thread Guide
202485	12320	Bobbin Winder Spool Holder com- plete, Nos. 200011D, 202480, 202481, 202483, two 202482 and one wood screw 1 in., No. 13 ..
213290	11652	Face Plate with 200366H, 202087, 203751, 207069, two each 200368H, 202090 and three 200397H
213266	11097	Face Plate Thread Guide
213291	11652	Face Plate complete, Nos. 200303H, 200577H, 202088, 213213, 213214, 213231, 213267, 213290, two each 200290C, 201537H, 204059, 203753 and three 225604
203250	12308	Hook Driving Shaft Collar with two 200393C
213198	13410	Needle Vibrating Cam and Gear Driving Gear, 16 teeth, with two 200383C
213254	11098	Needle Vibrating Cam and Gear, 48 teeth, for 214008

No.	Plate	Name
214008	—	Needle Vibrating Cam and Gear 213254 with 200079H and 213276, for 213217
213217	—	Needle Vibrating Cam and Gear 214008 with 200062H and 213203 ..
213811	13410	Piercer Bar Lifting Rock Shaft Bushing

Nos. 229681 to 229684, for 229705 and 229727

229681	14204	Presser Foot Bracket
229682	14204	" " Heel Spring
229683	14204	" " " " Post
229684	14204	" " " " Washer
229703	14204	" " Plate (left), for 229769 ..
229704	14204	" " " (right), for 229795 ..
206651	—	" " Shank (left) with 229949, for 229763 and 229769 ..
229769	13407	Presser Foot Shank 206651 with 221479 and 229703, for 229705 ...
206652	—	Presser Foot Shank (right) with 229949, for 229764 and 229795 ..
229795	13407	Presser Foot Shank 206652 with 221479 and 229704, for 229705 ...
229705	14204	Presser Foot (hinged) complete, Nos. 206487, 207127, 229681 to 229684, 229769, 229795, two each 200057F, 201537F and 207125, to be used with Presser Bar 204251 ..
229725	13408	Presser Foot Plate (left), for 229763 ..
229726	13408	" " " (right), for 229764 ..
229763	13408	" " Shank 206651 with 221479 and 229725, for 229727 ..
229764	13408	Presser Foot Shank 206652 with 221479 and 229726, for 229727 ..
229727	13408	Presser Foot (hinged) complete, Nos. 206487, 207127, 229681 to 229684, 229763, 229764, two each 200057F, 201537F and 207125, to be used with Presser Bar 204251 ..
229731	13409	Presser Foot Plate (left) with 200486D and 213648, for 229791 ..
229732	13409	Presser Foot Plate (right), for 229792
229791	13409	Presser Foot Shank 207136 with 200175H, 205979, 207140 and 229731, for 229733
229792	13409	Presser Foot Shank 207137 with 200175H, 205979, 207140 and 229732, for 229733

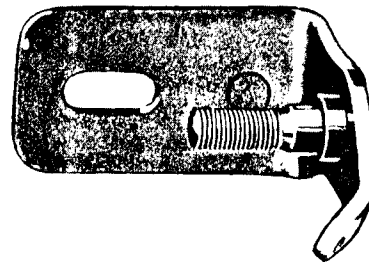
No.	Plate	Name
213648	13409	Presser Foot (left) Strip Guide, for 229731
229733	13409	Presser Foot (hinged) (adjustable) complete, Nos. 207138, 229791, 229792, two each 200112H and 228026, to be used with Presser Bar 221468
229739	13409	Presser Foot (hinged) (adjustable) complete, Nos. 207138, 229787, 229788, two each 200112H and 228026, to be used with Presser Bar 221468
234703	13406	Tension Release Lever Stop
202872	13406	" " " " Posi- tion Pin
213805	11101	Thread Controller Roller Guard Washer Thread Guard, for 203745 ..
203745	—	Thread Controller complete, Nos. 200300C, 200581H, 202098, 204274, 204275, 204333 and 213805, for 213231
213231	13410	Thread Controller and Spring com- plete, Nos. 202085 and 203745, for 213291

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PLATE 10881—FULL SIZE

225461



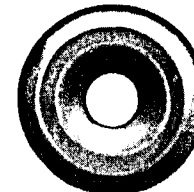
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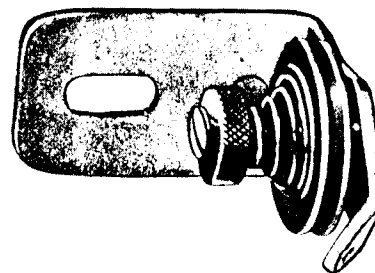
202104



2102



225462



202407



201499



201572



PLATE 10884 - FULL SIZE

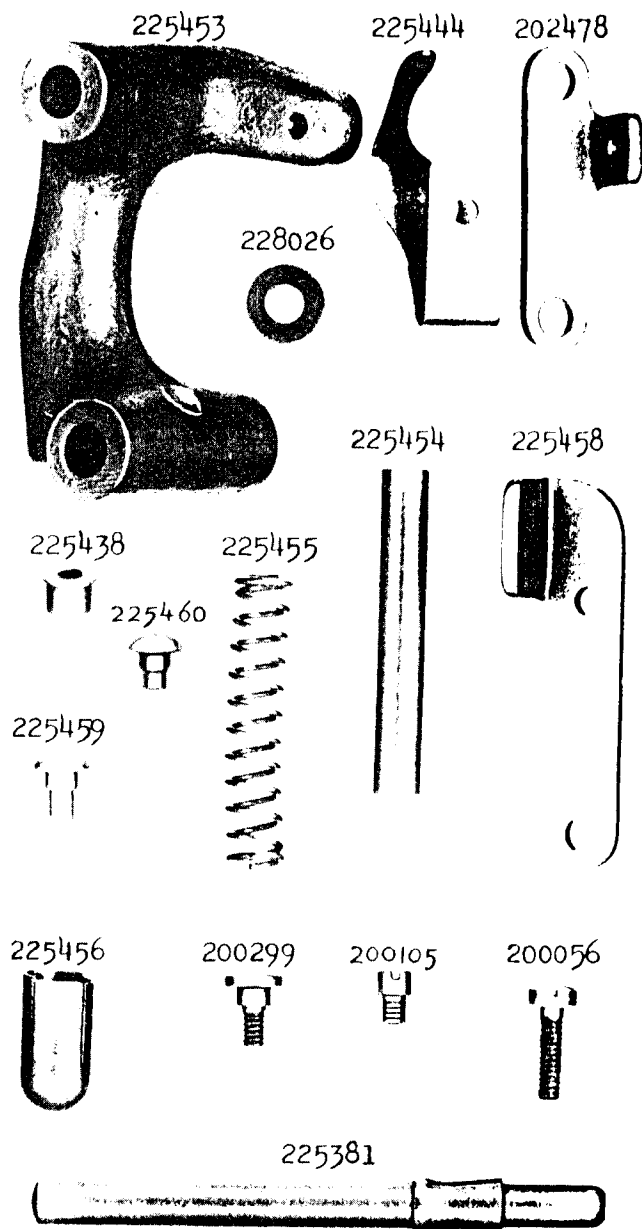


PLATE 10885 - ONE-FOURTH SIZE

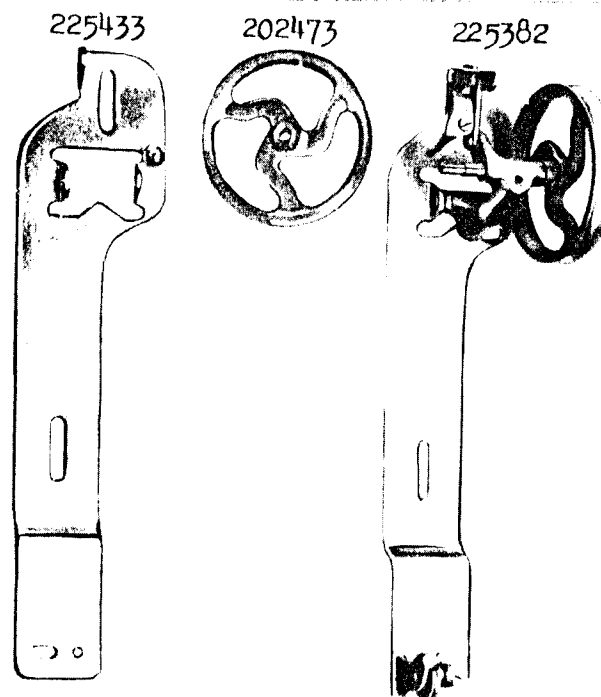
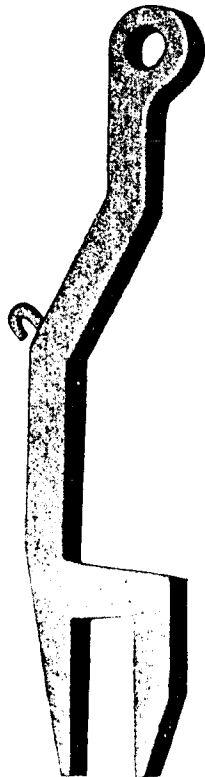


PLATE 11090—FULL SIZE

200571 200075 200348 201535



213789



200036



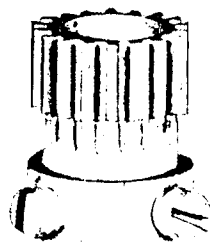
201850



201517



213218



213187

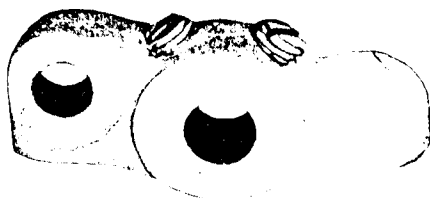
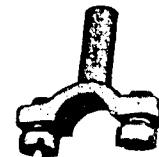
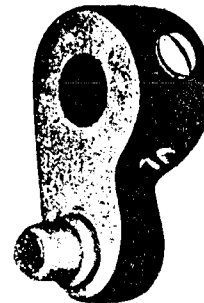


PLATE 11097—FULL SIZE

213284 213261 200117 213266



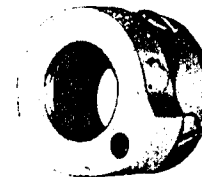
213246



213233



213234



213264



200809



PLATE 11098-ONE-HALF SIZE

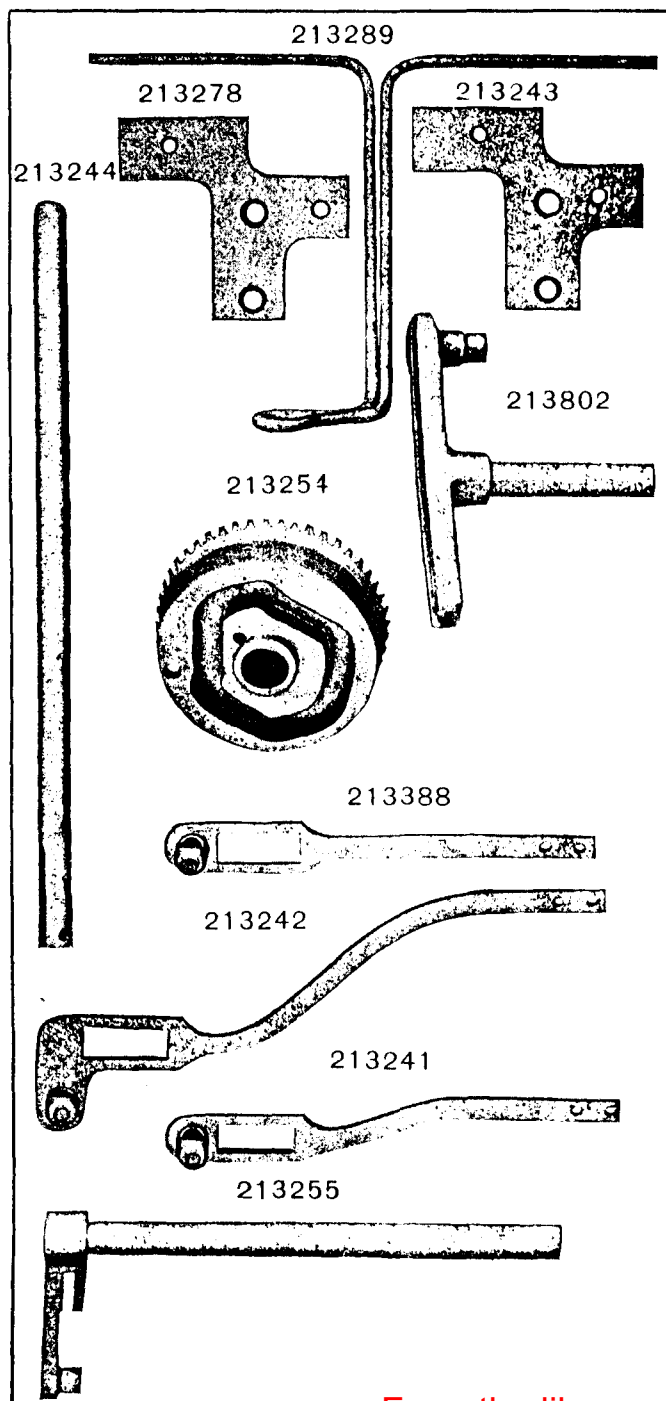


PLATE 11100-FULL SIZE

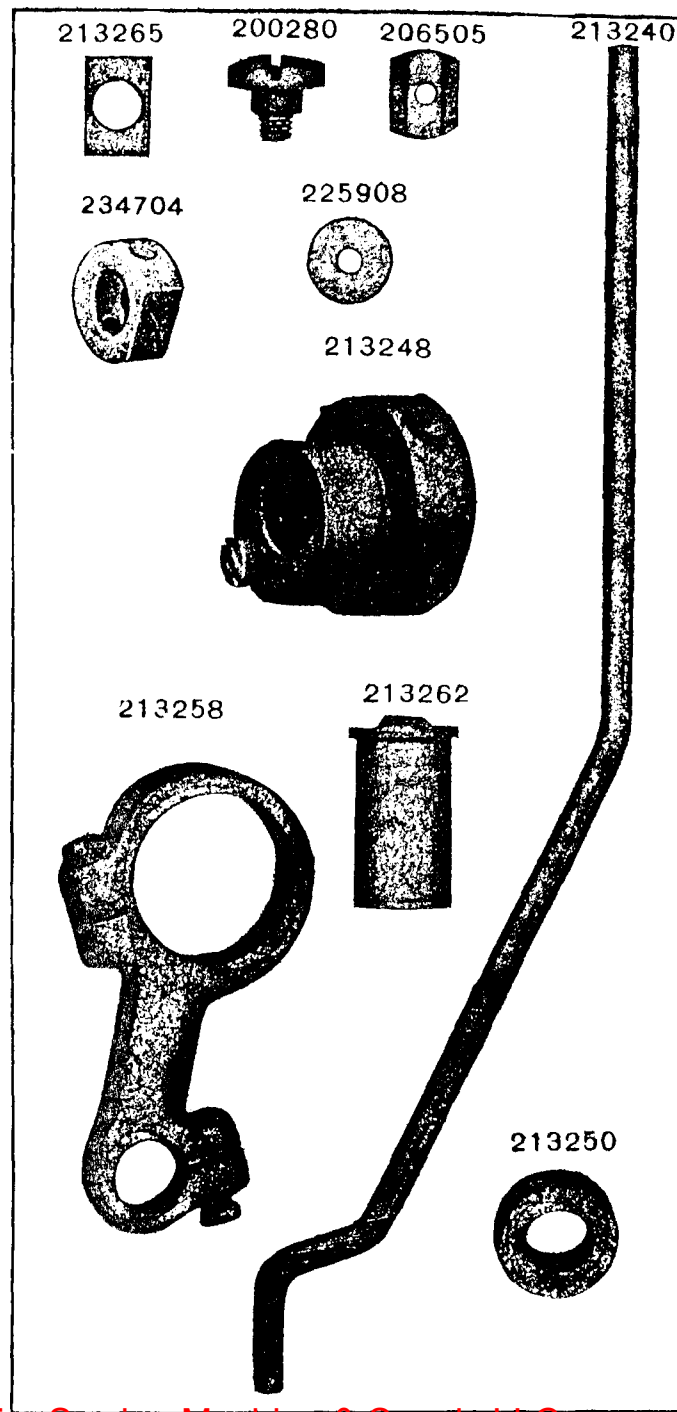
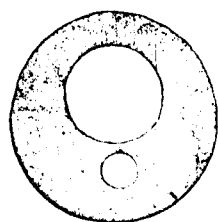


PLATE 11101—FULL SIZE

213740

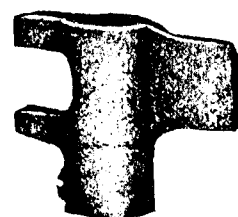


213249

200740



201520



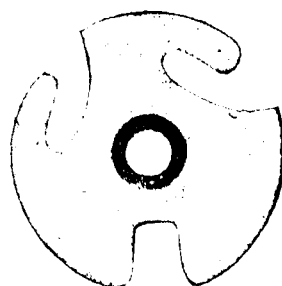
213253



213805



213267



213809



PLATE 11103—FULL SIZE

213276



200526



200141



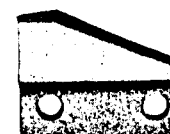
213274



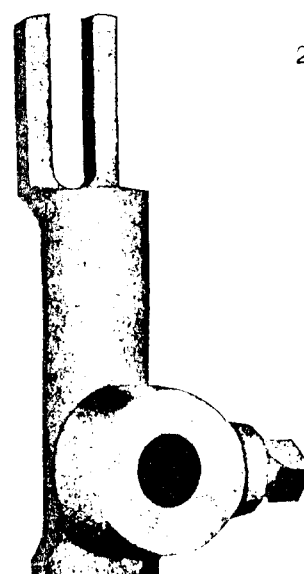
200199



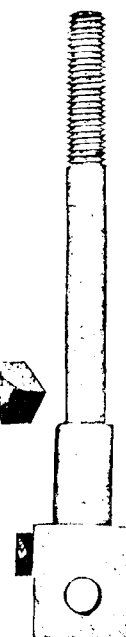
227447



213269



213270



213275



213273



PLATE 11635-FULL SIZE

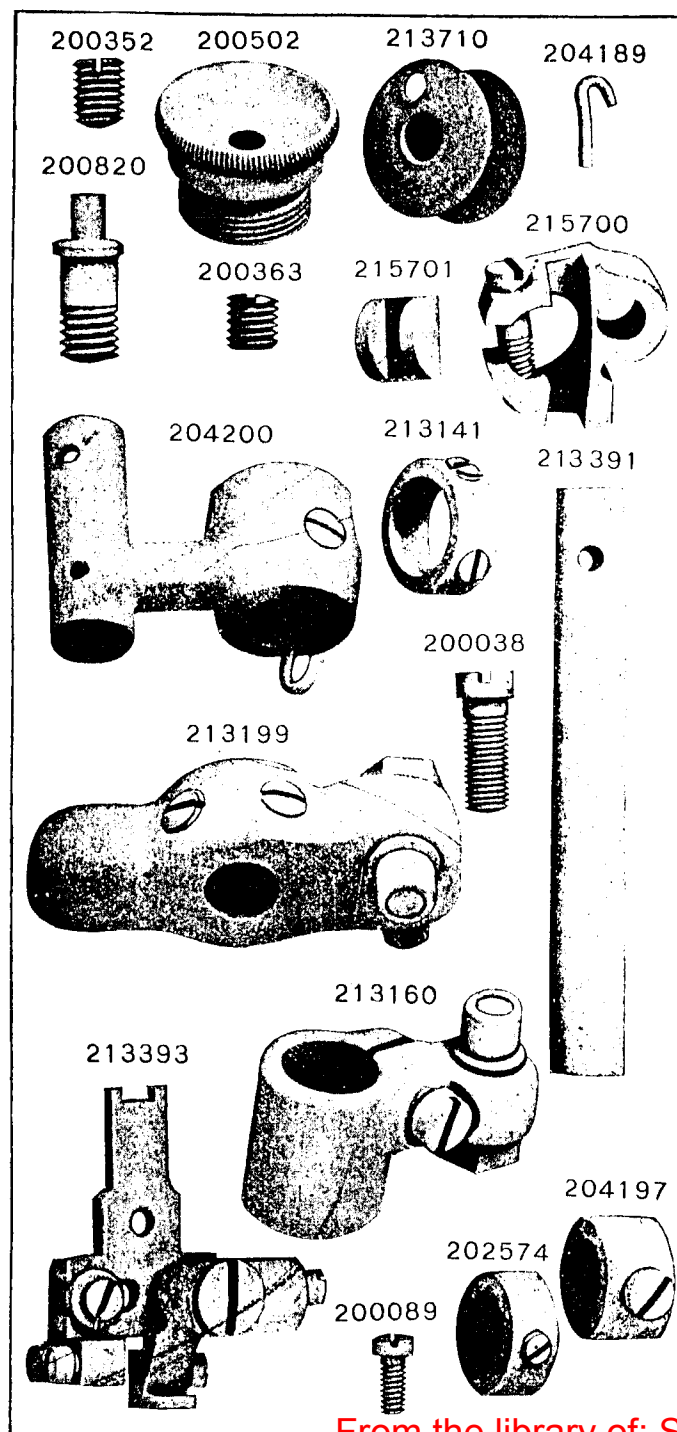


PLATE 11636-ONE-FOURTH SIZE

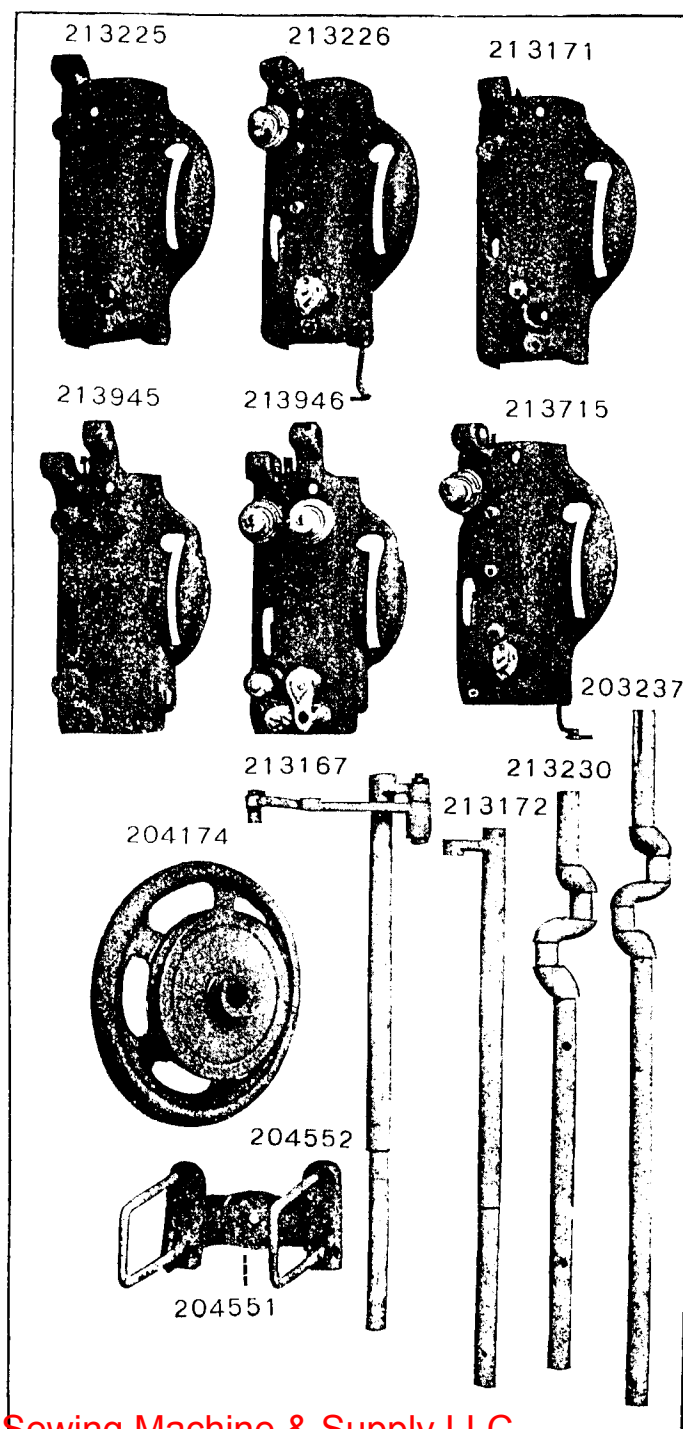


PLATE 11642 -FULL SIZE

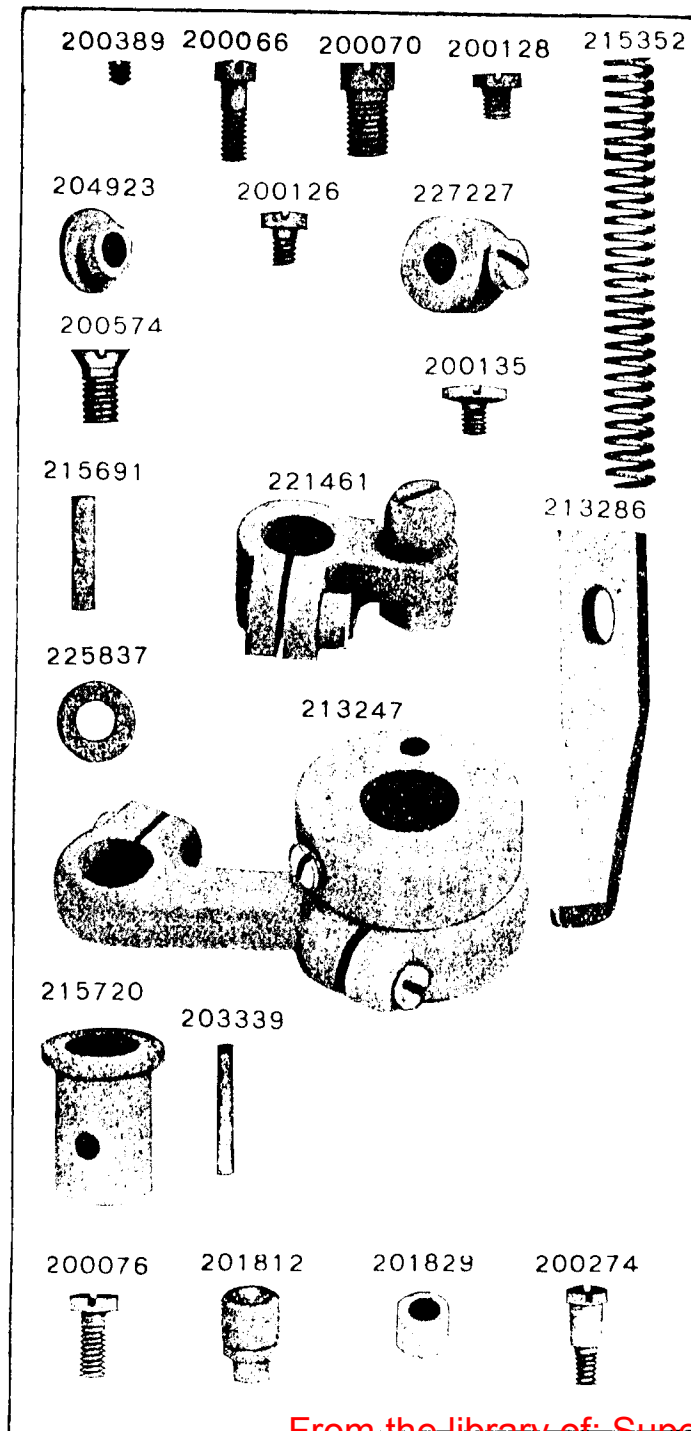


PLATE 11644 FULL SIZE

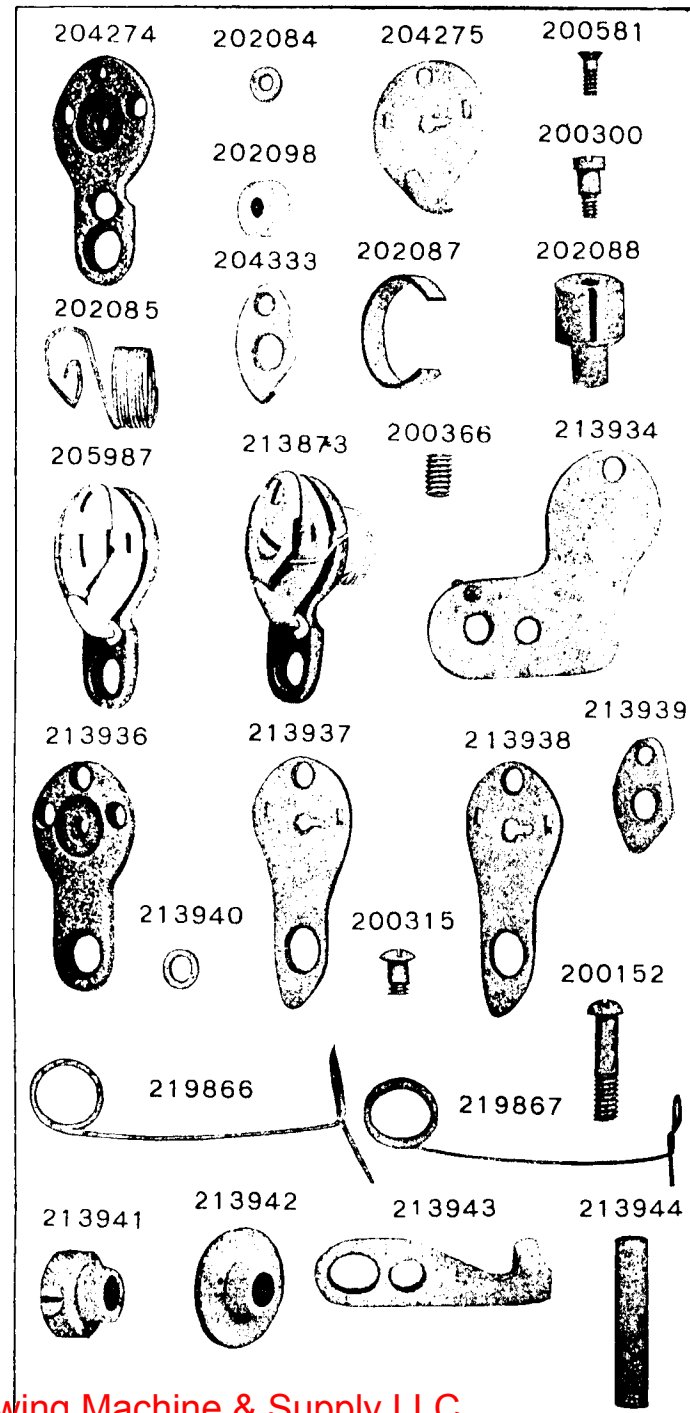


PLATE 11649—FULL SIZE

230190



230192

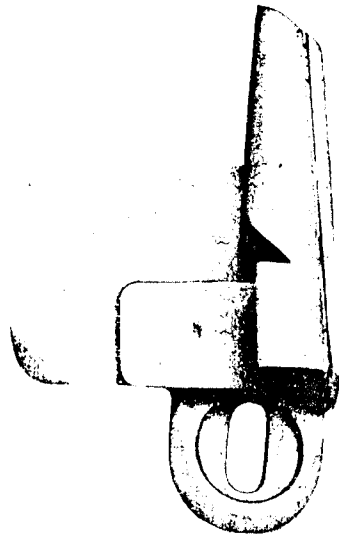
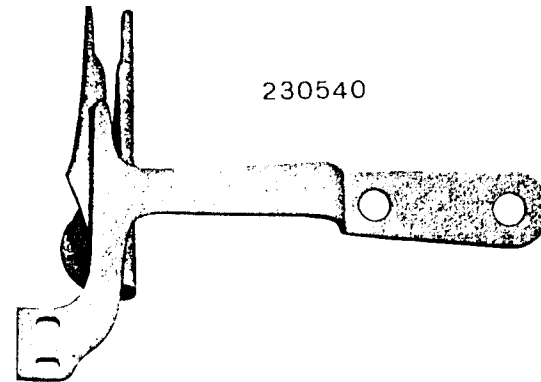
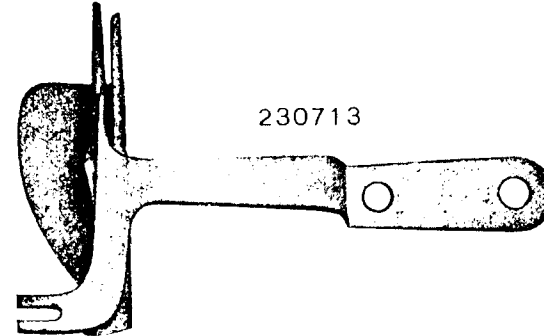


PLATE 11650—ONE-HALF SIZE

230540



230713



230715

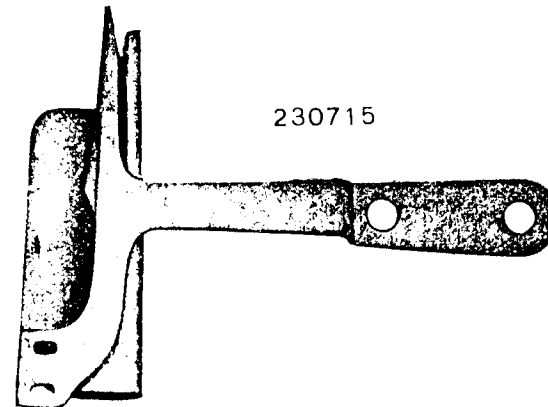
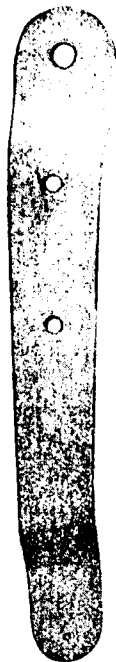


PLATE 11651 ONE-HALF SIZE

230756



230539



230714

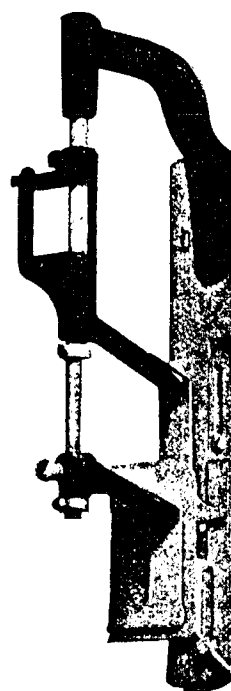


230716

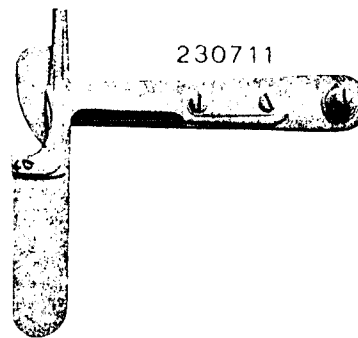


PLATE 11652--ONE-FOURTH SIZE

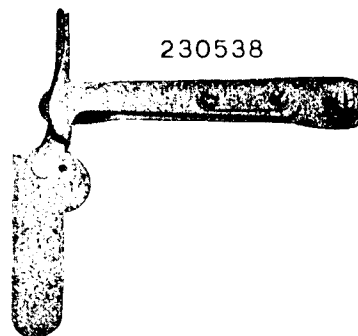
225842



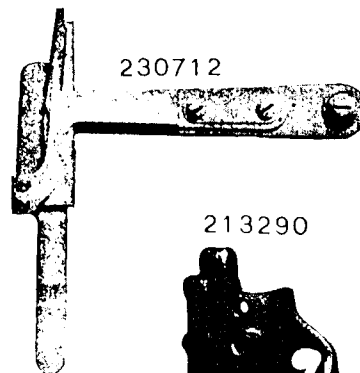
230711



230538



230712



213290



213291

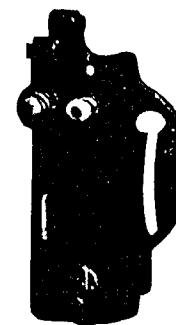


PLATE 12153—ONE-HALF SIZE

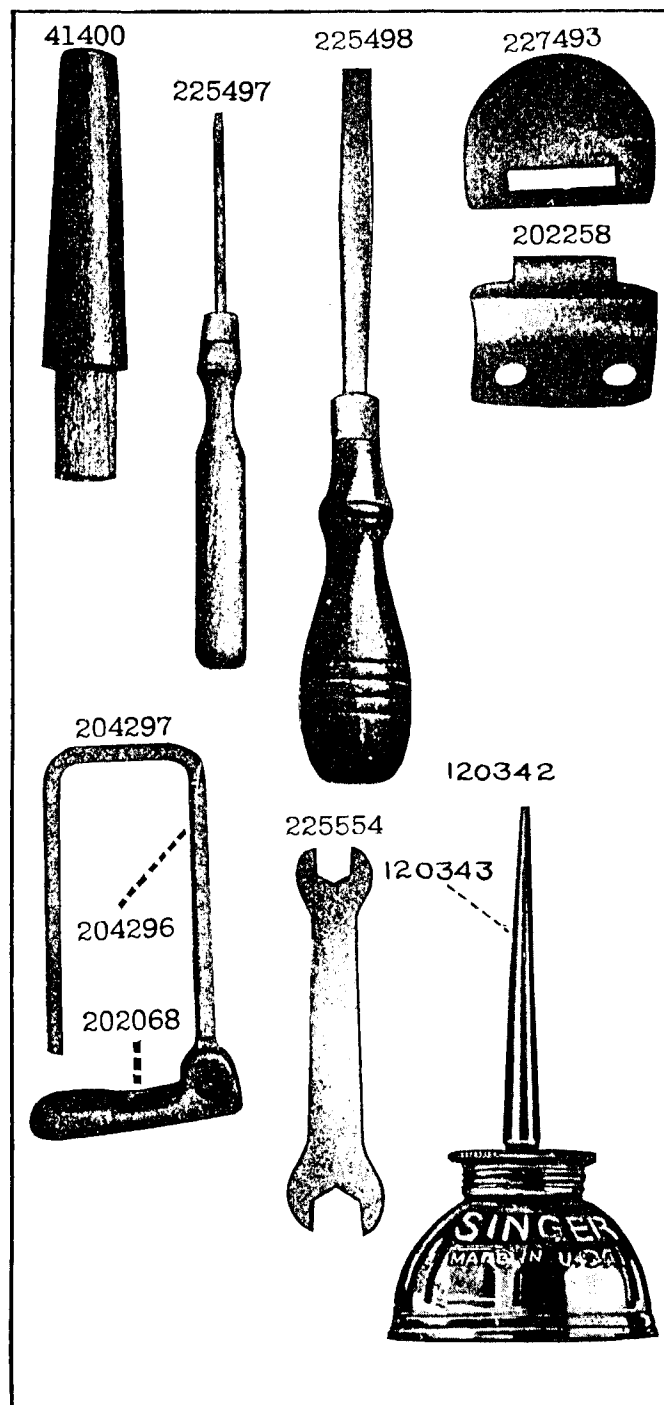


PLATE 12307—FULL SIZE

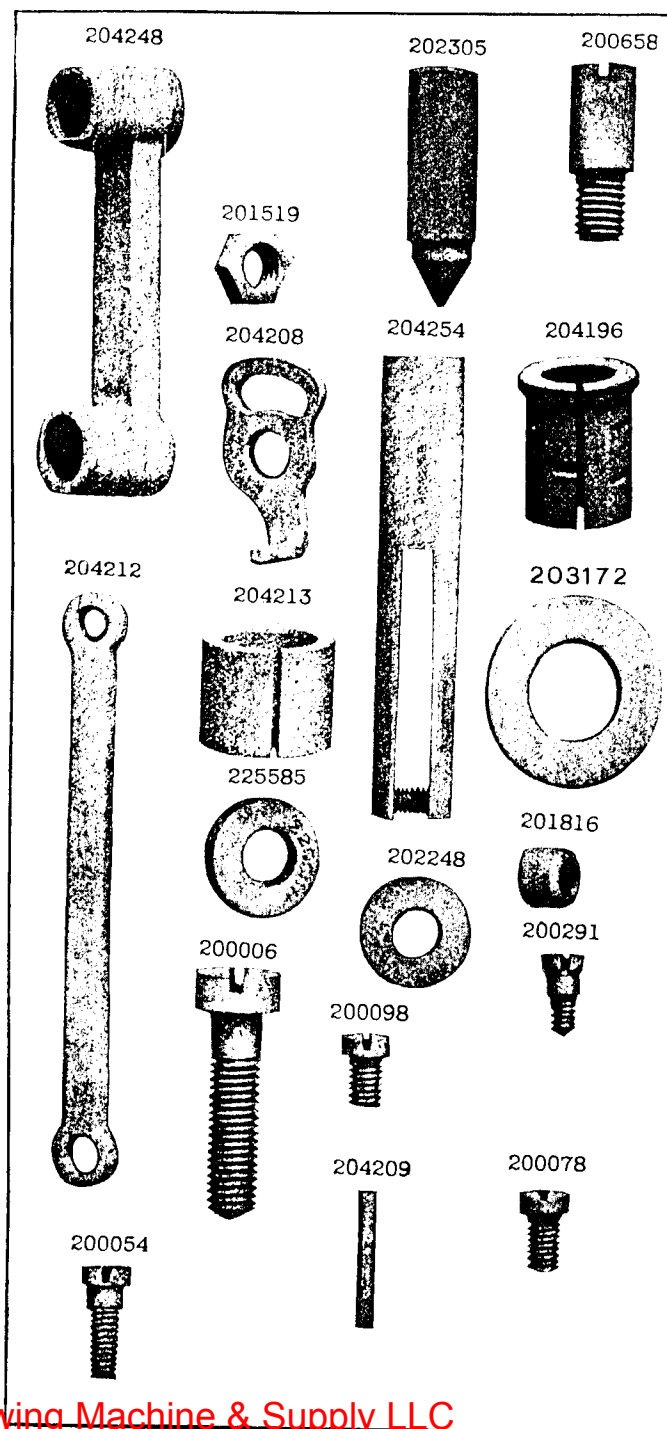


PLATE 12308-FULL SIZE

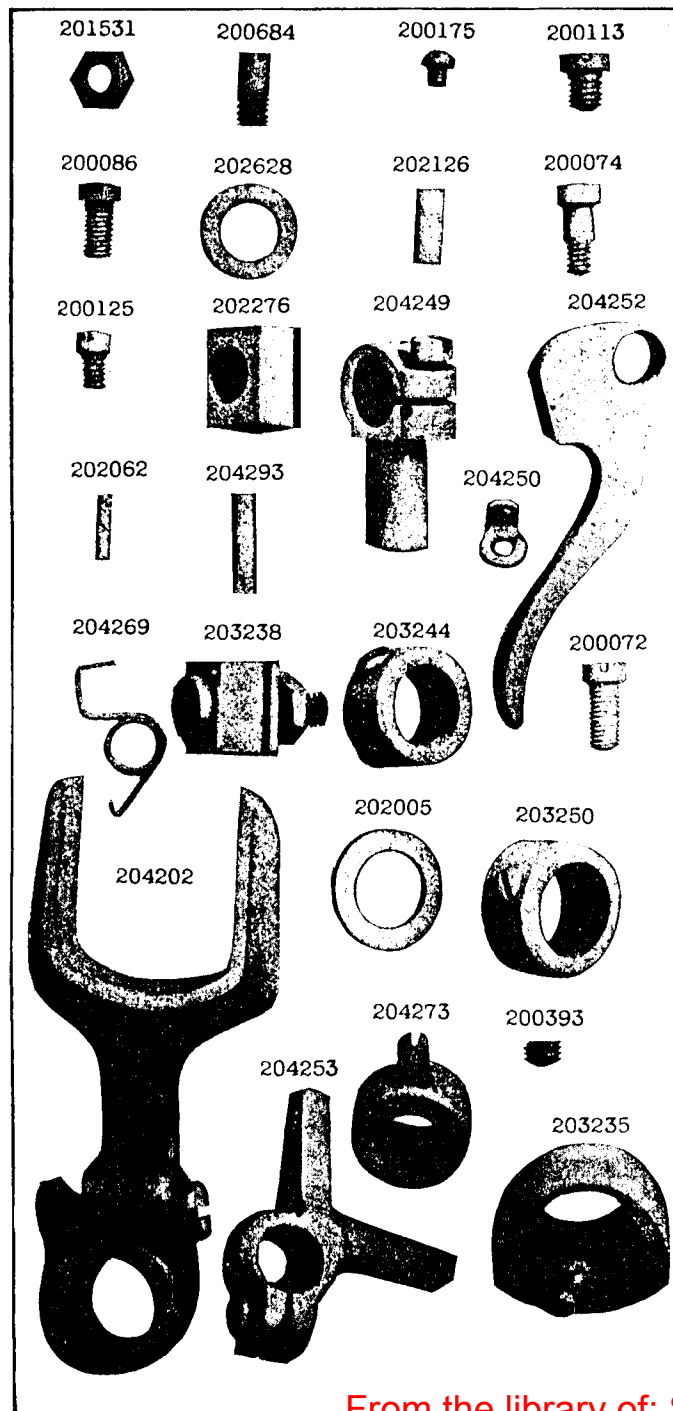


PLATE 12311-FULL SIZE

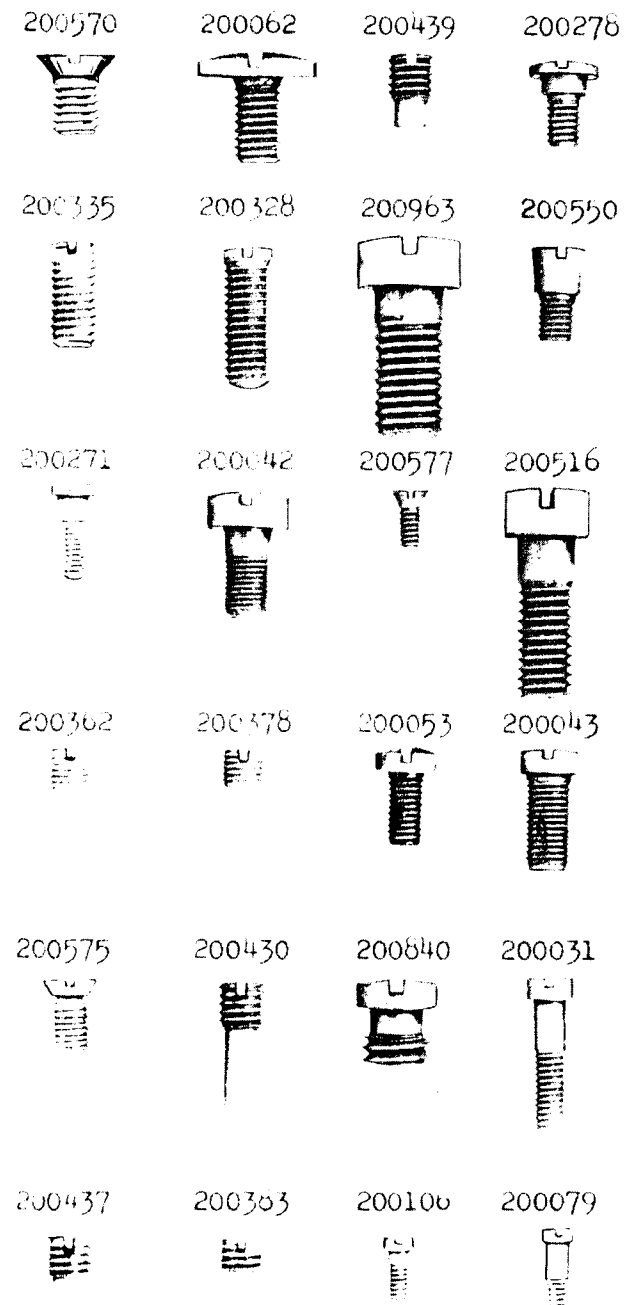


PLATE 12312 -FULL SIZE

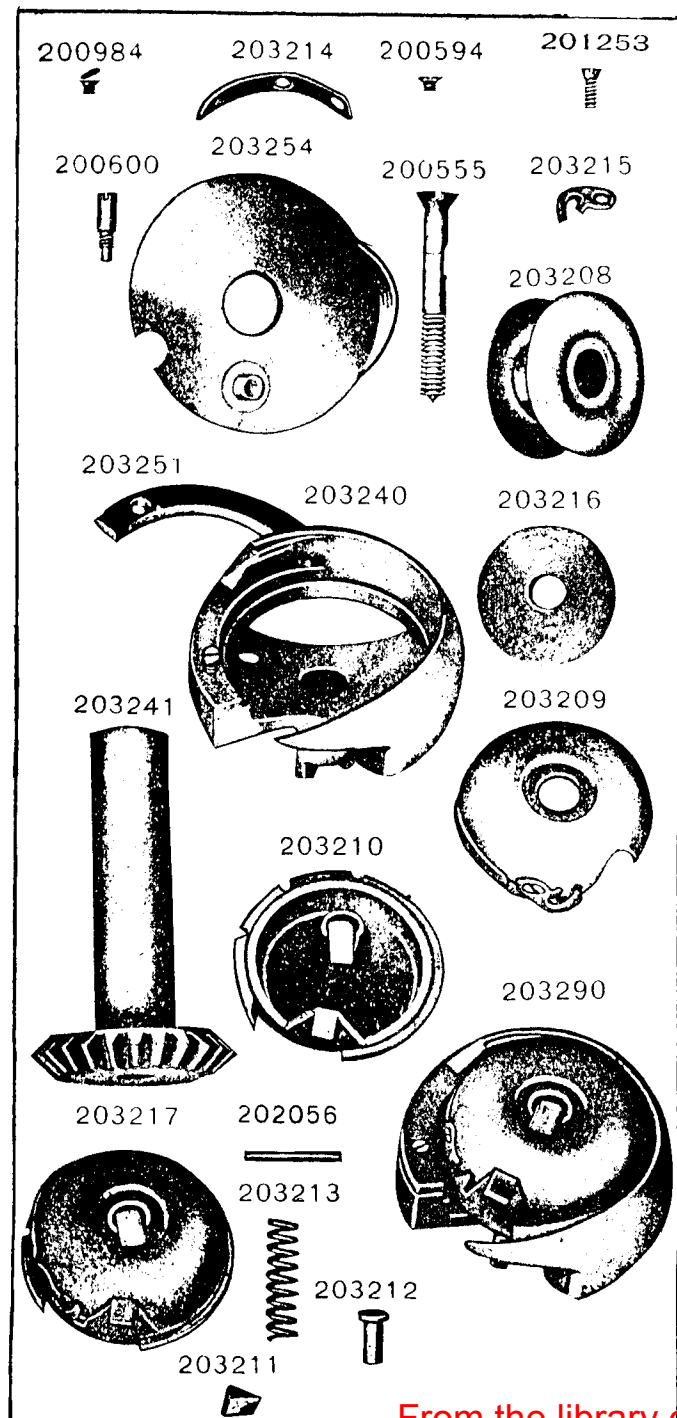


PLATE 12319 -FULL SIZE

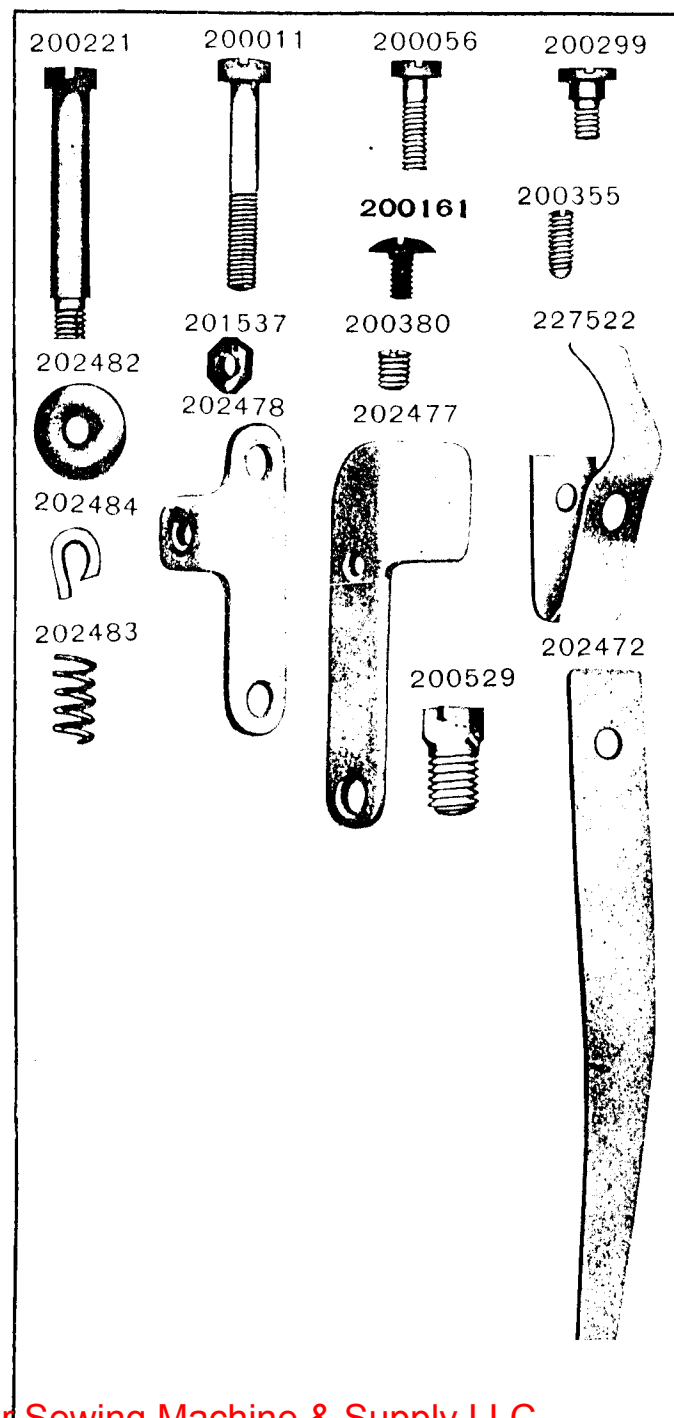


PLATE 12320—ONE-HALF SIZE

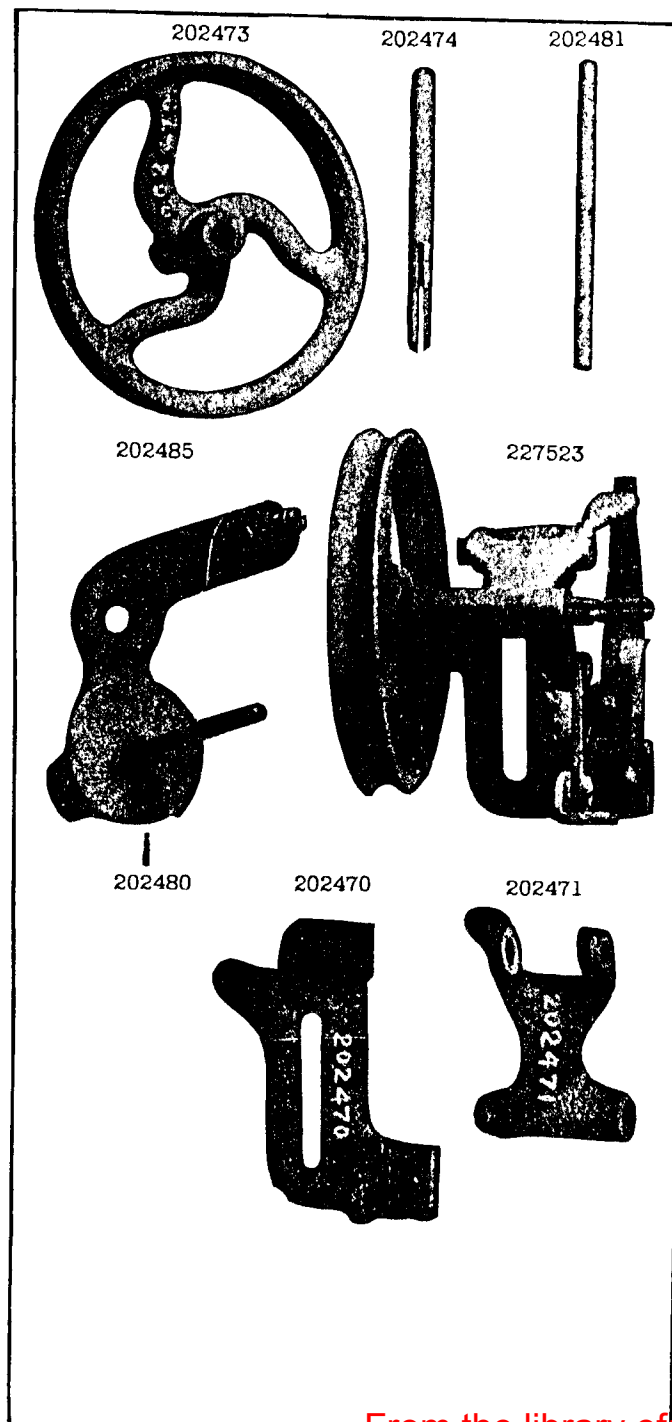


PLATE 12335—FULL SIZE

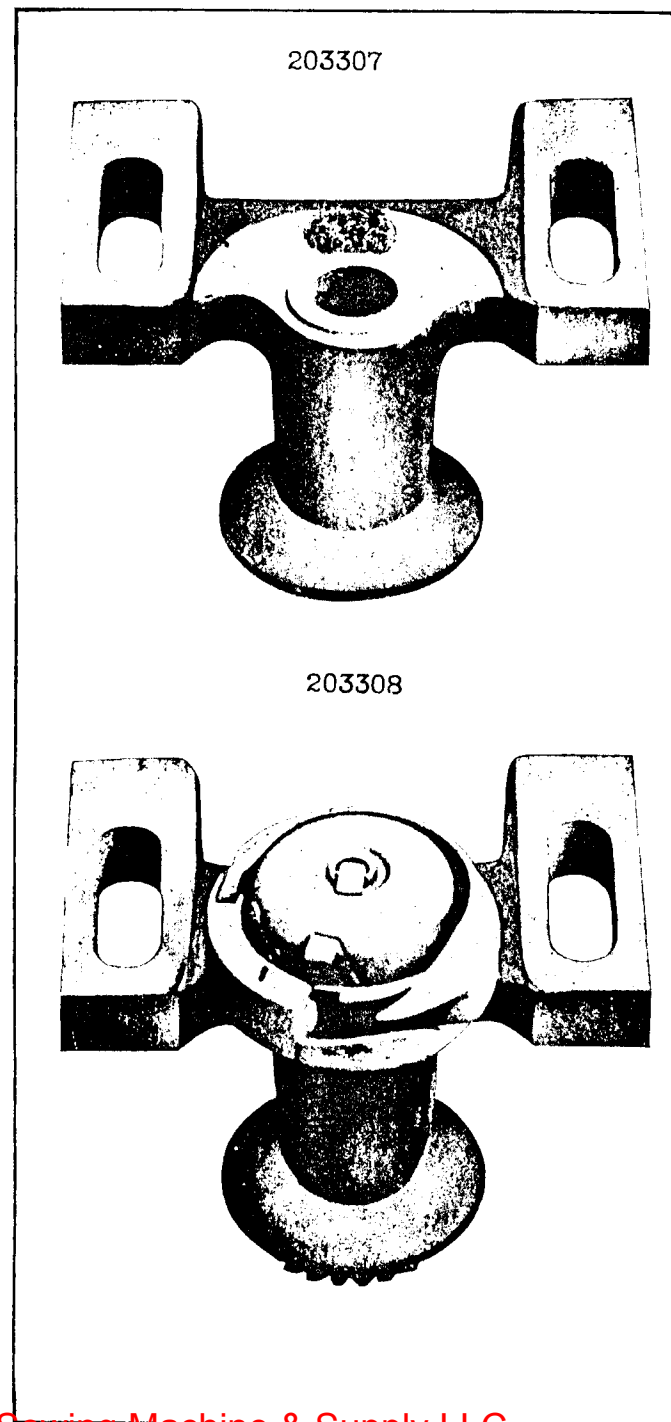


PLATE 12344 - FULL SIZE

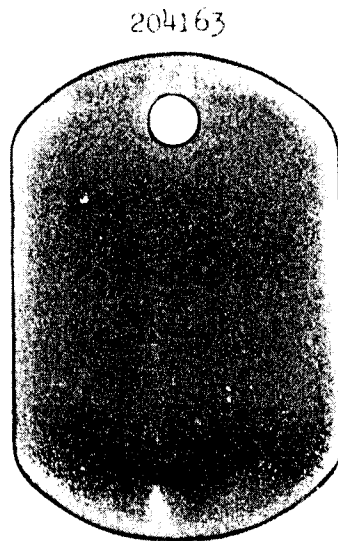
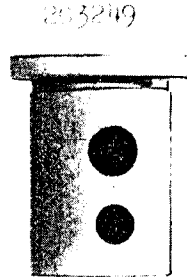
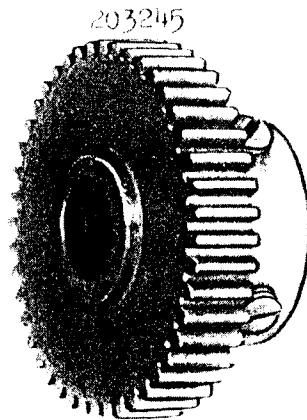
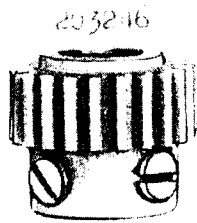
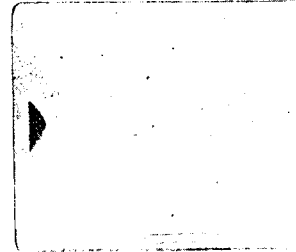
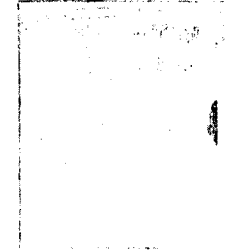


PLATE 13401 - ONE-HALF SIZE

203301



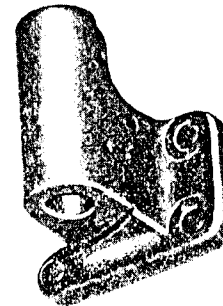
206125



204804



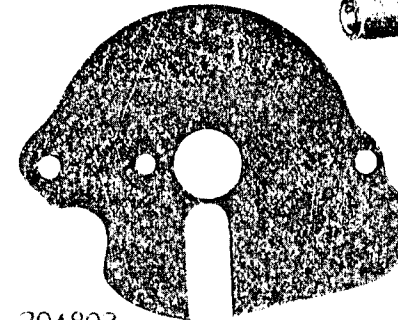
213245



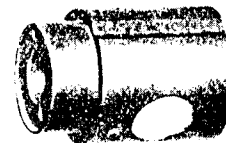
204193



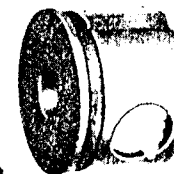
213257



204802



204801



206206

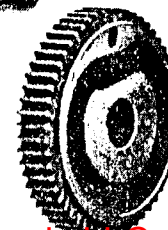


PLATE 13402—FULL SIZE

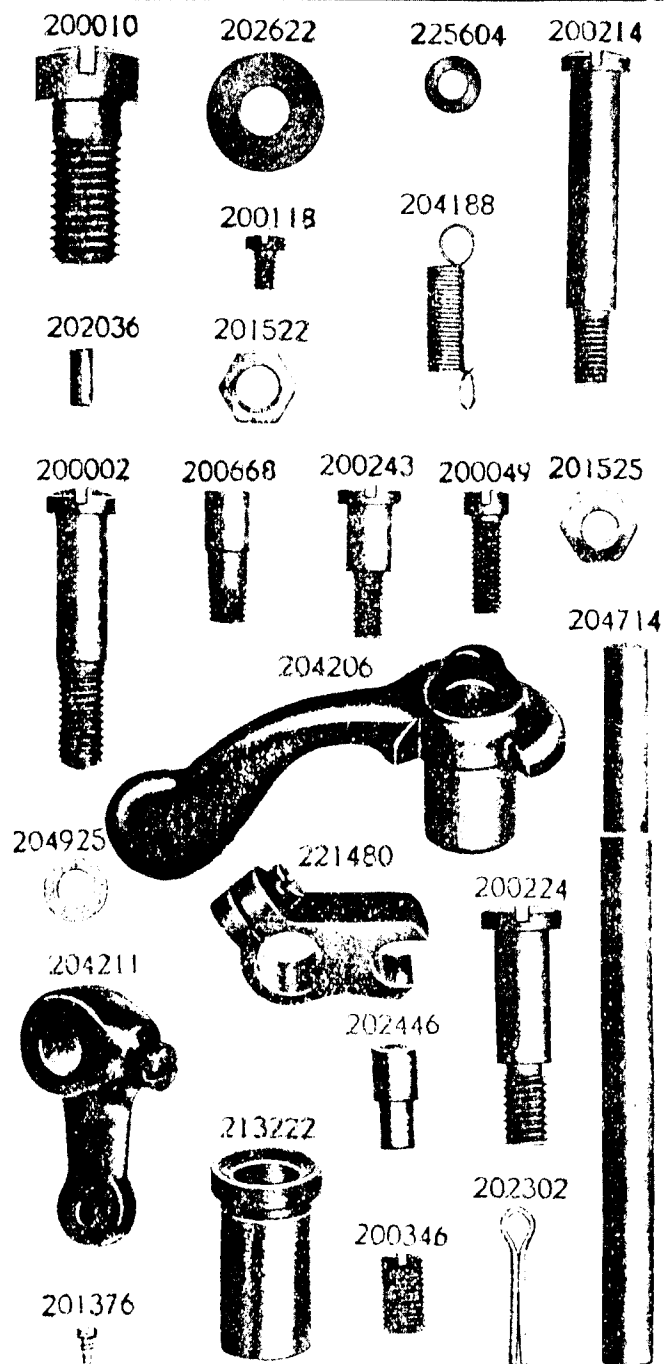


PLATE 13403—ONE-HALF SIZE

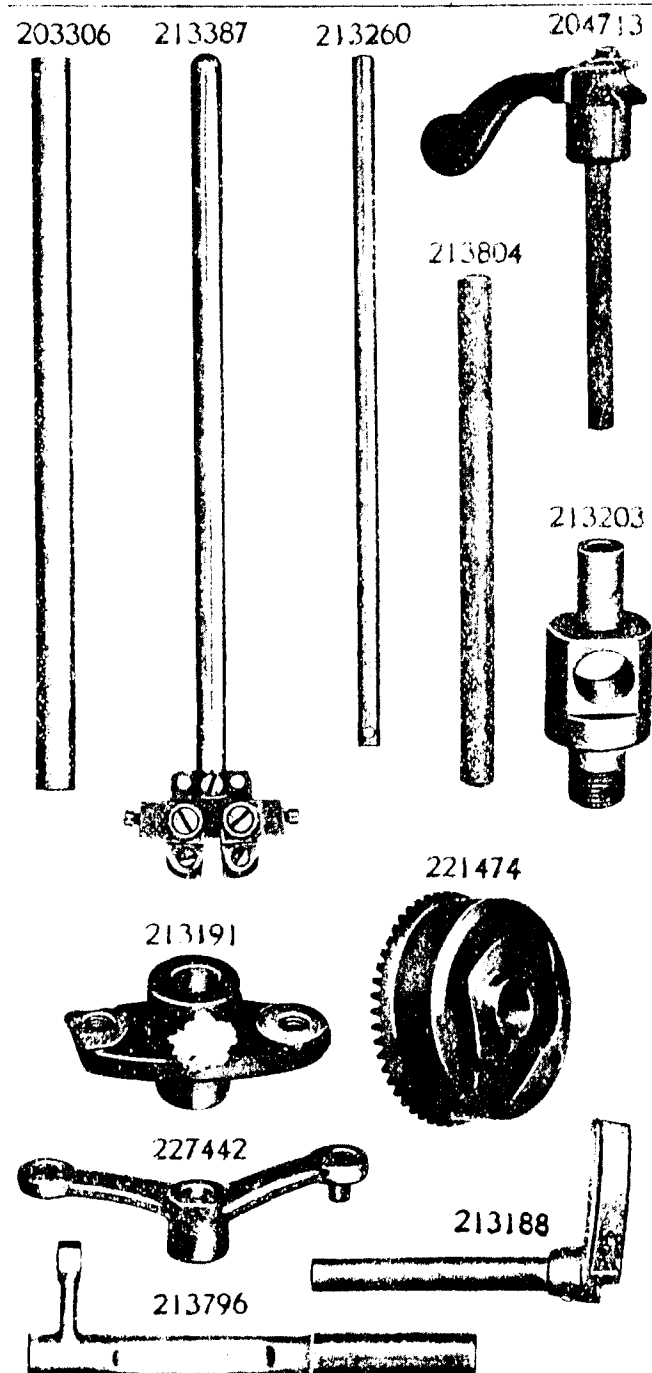


PLATE 13404--FULL SIZE

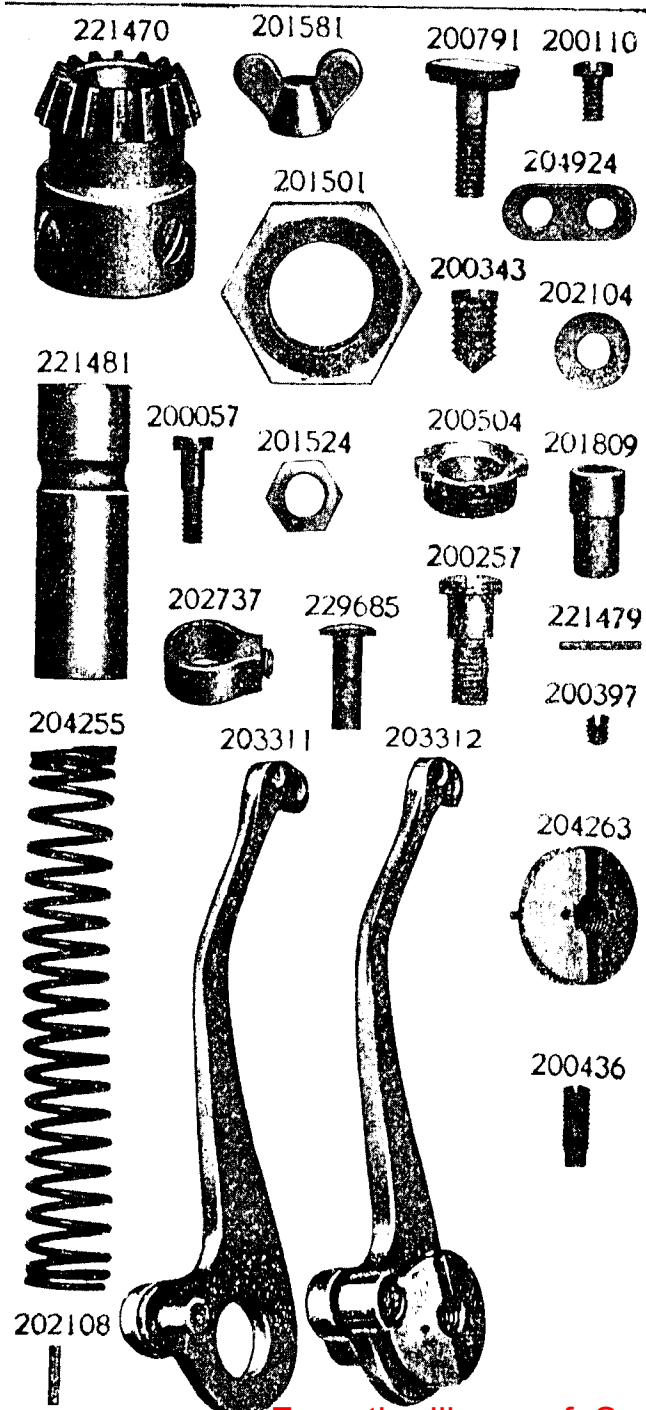


PLATE 13405--ONE-HALF SIZE

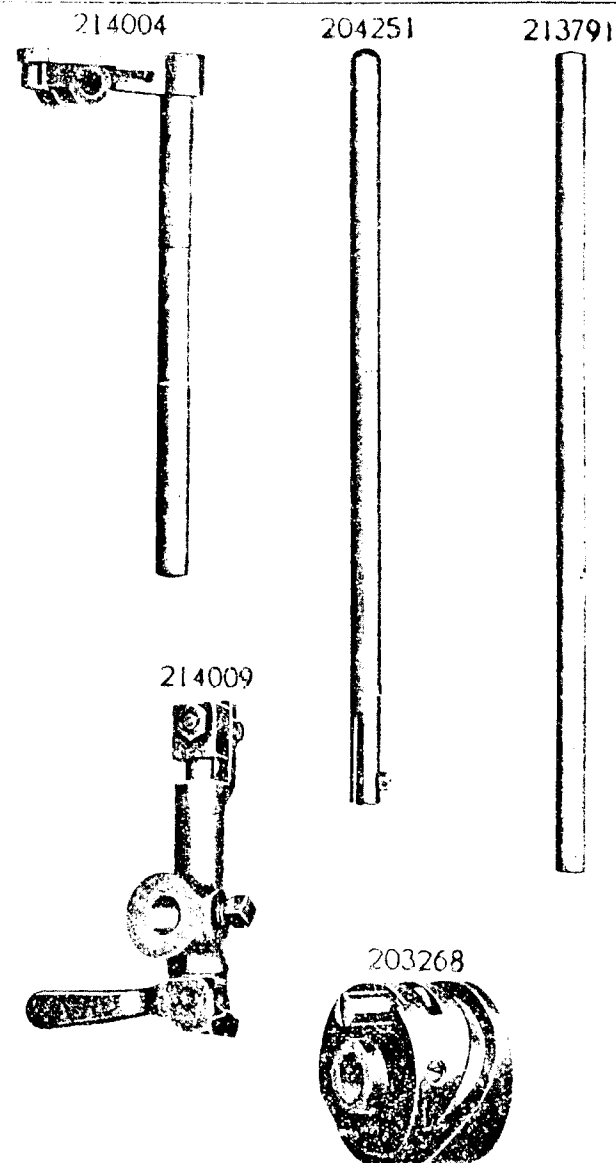
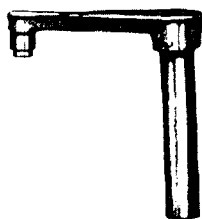


PLATE 13430—ONE-HALF SIZE

203748



213271

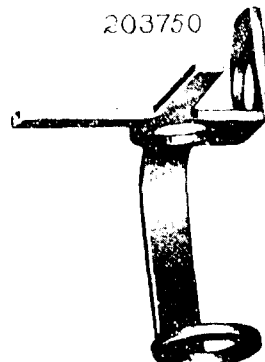


227309

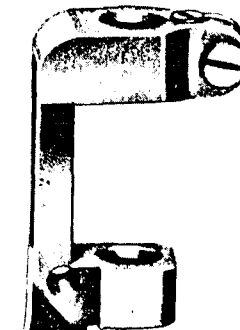


PLATE 13431—FULL SIZE

203750



229772



204058



204059



202091



202092



204281



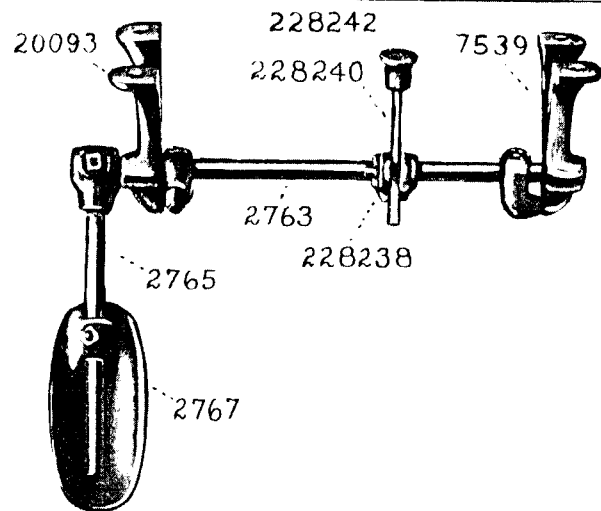
203376



200368



PLATE 14171—ONE-FOURTH SIZE



FULL SIZE

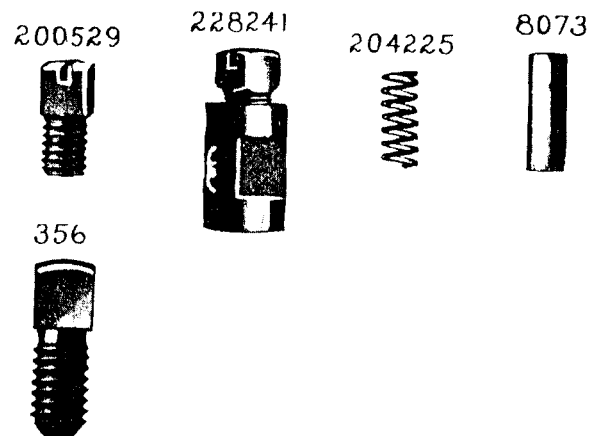
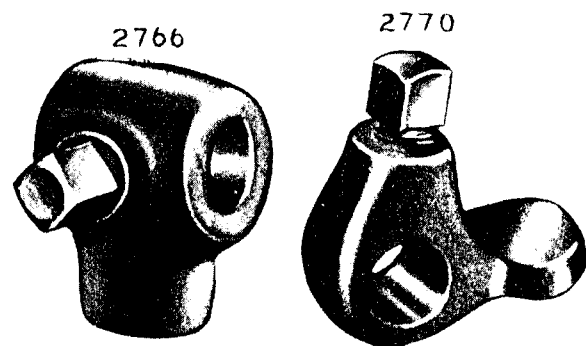


PLATE 14204—FULL SIZE

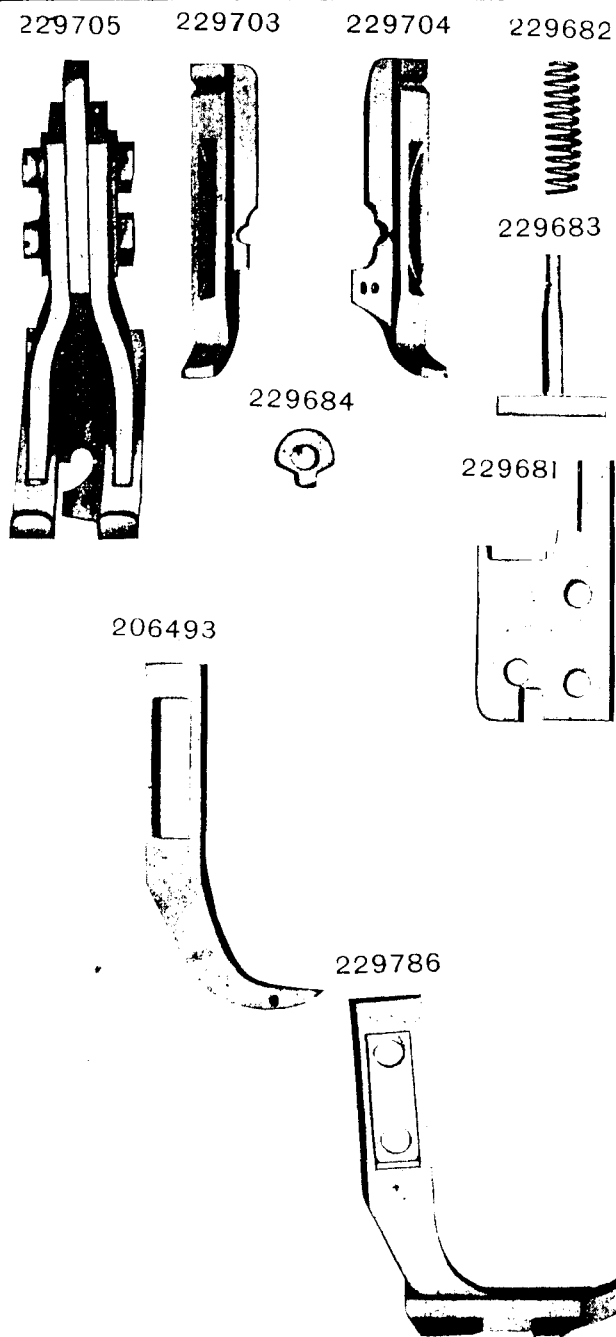


PLATE 14214—FULL SIZE

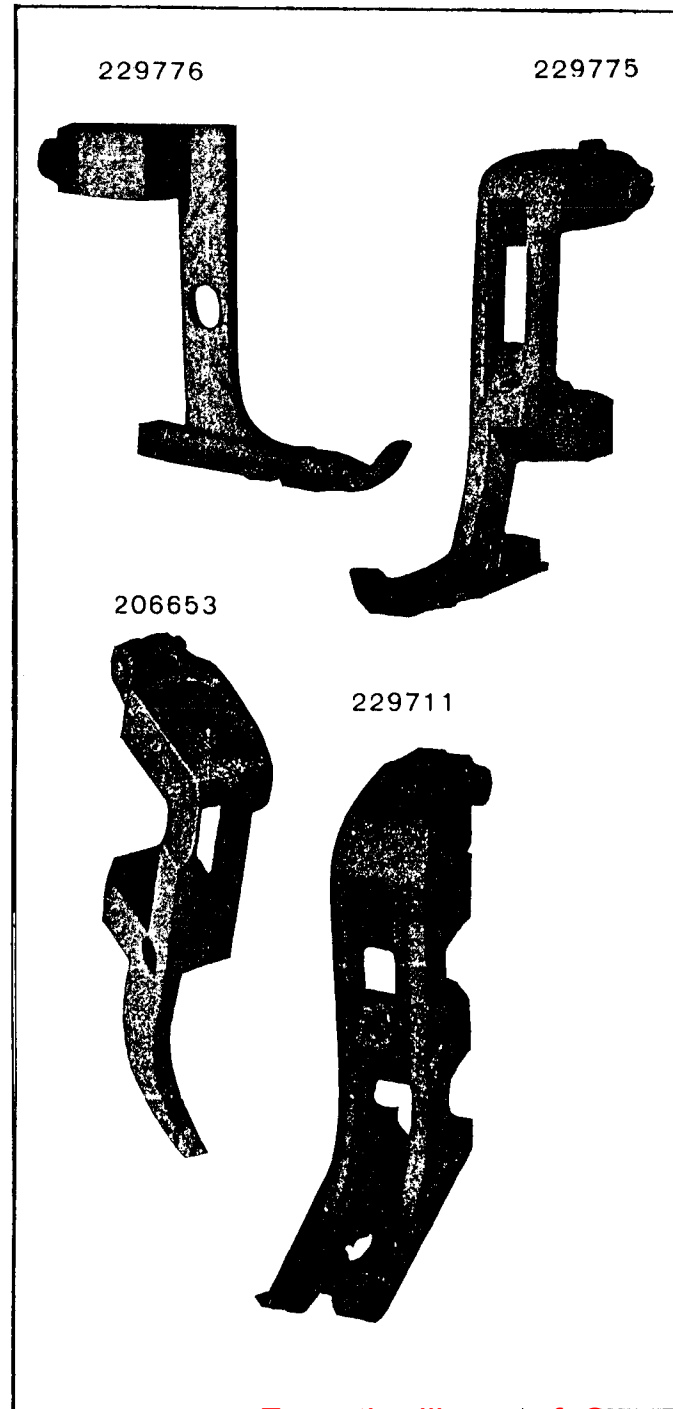


PLATE 14526—ONE-HALF SIZE

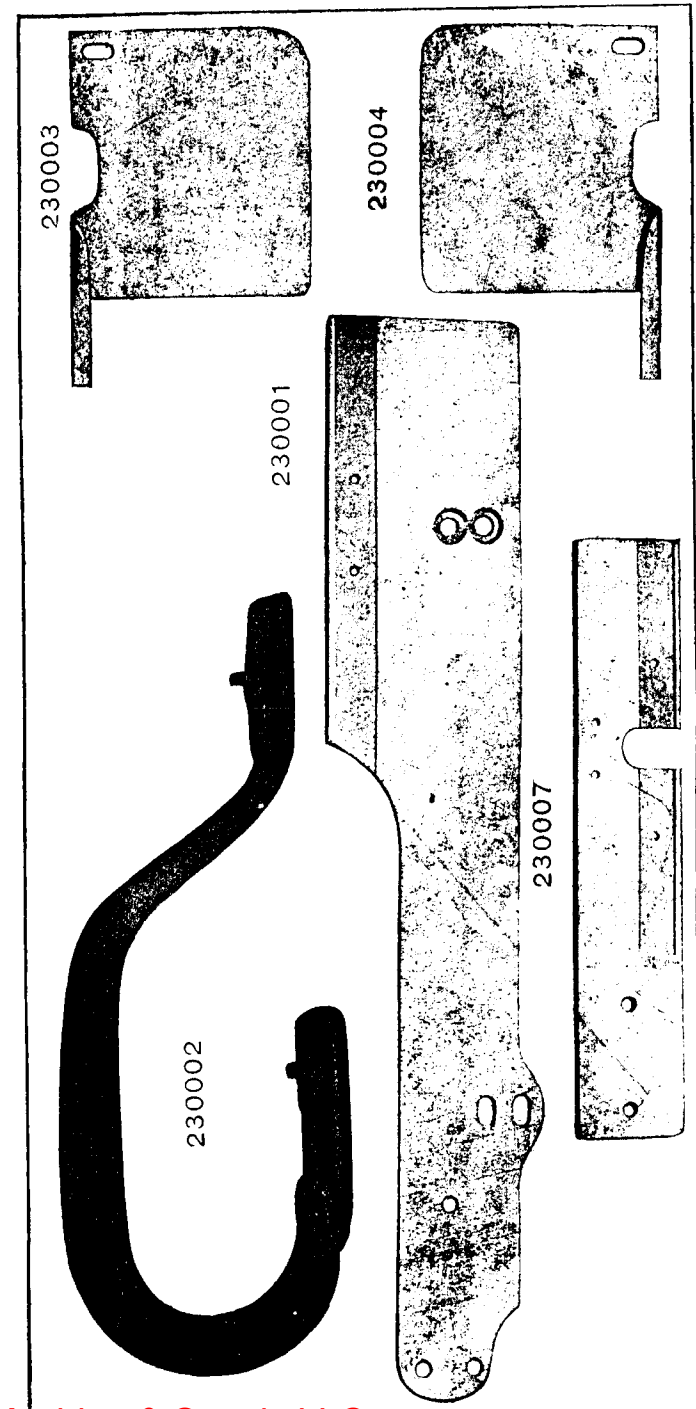


PLATE 14627—FULL SIZE

200048 200053 200472 200344



200169 200186 200176



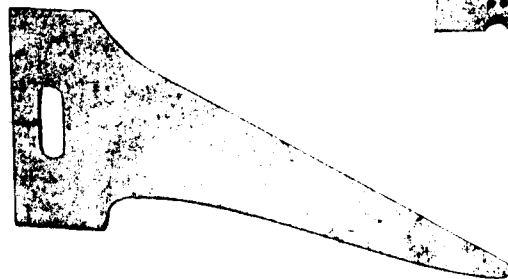
230008



202603



230005



230006

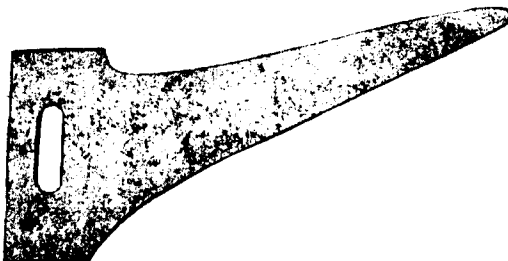
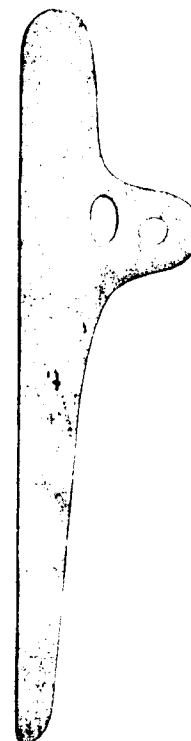
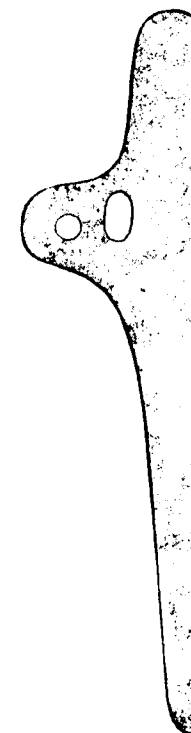


PLATE 14528—FULL SIZE

230010



230009



230013



230011

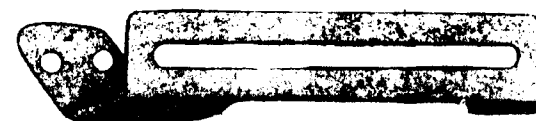


PLATE 14529—ONE-HALF SIZE

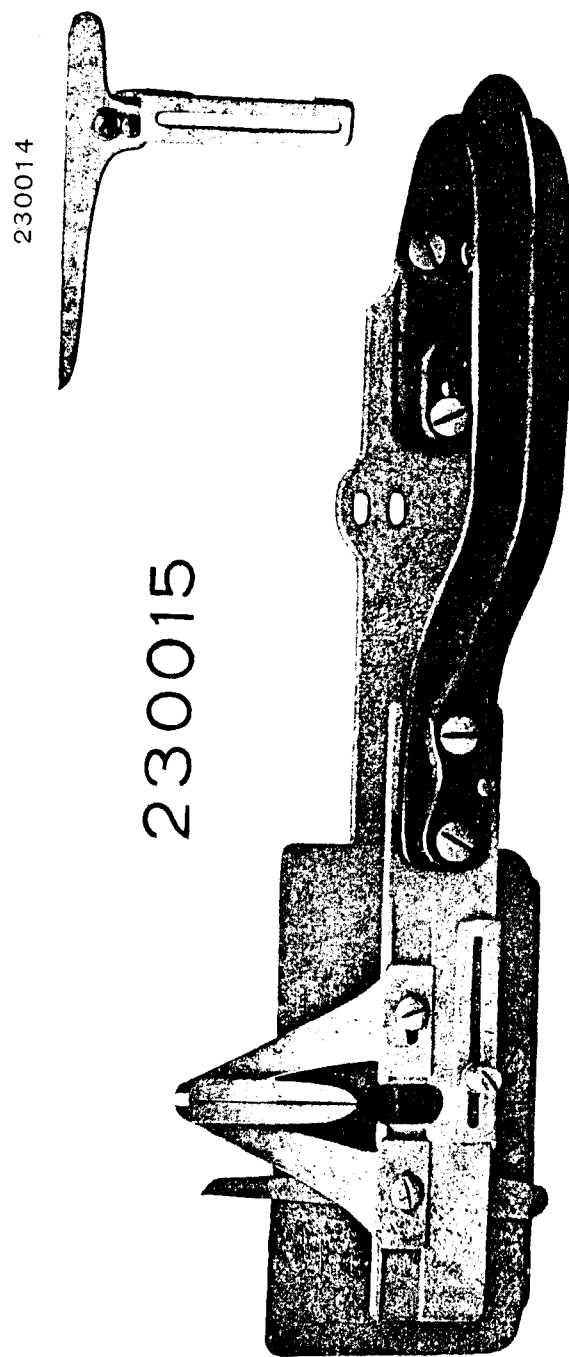


PLATE 14581—FULL SIZE

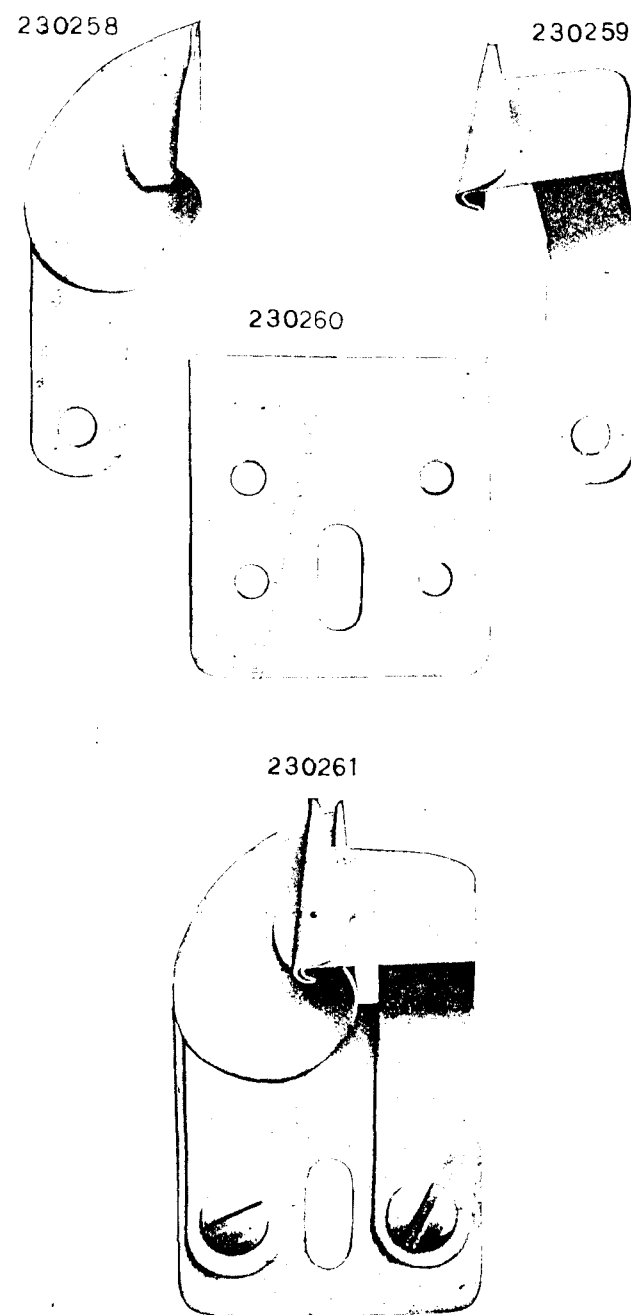


PLATE 14605--ONE-HALF SIZE

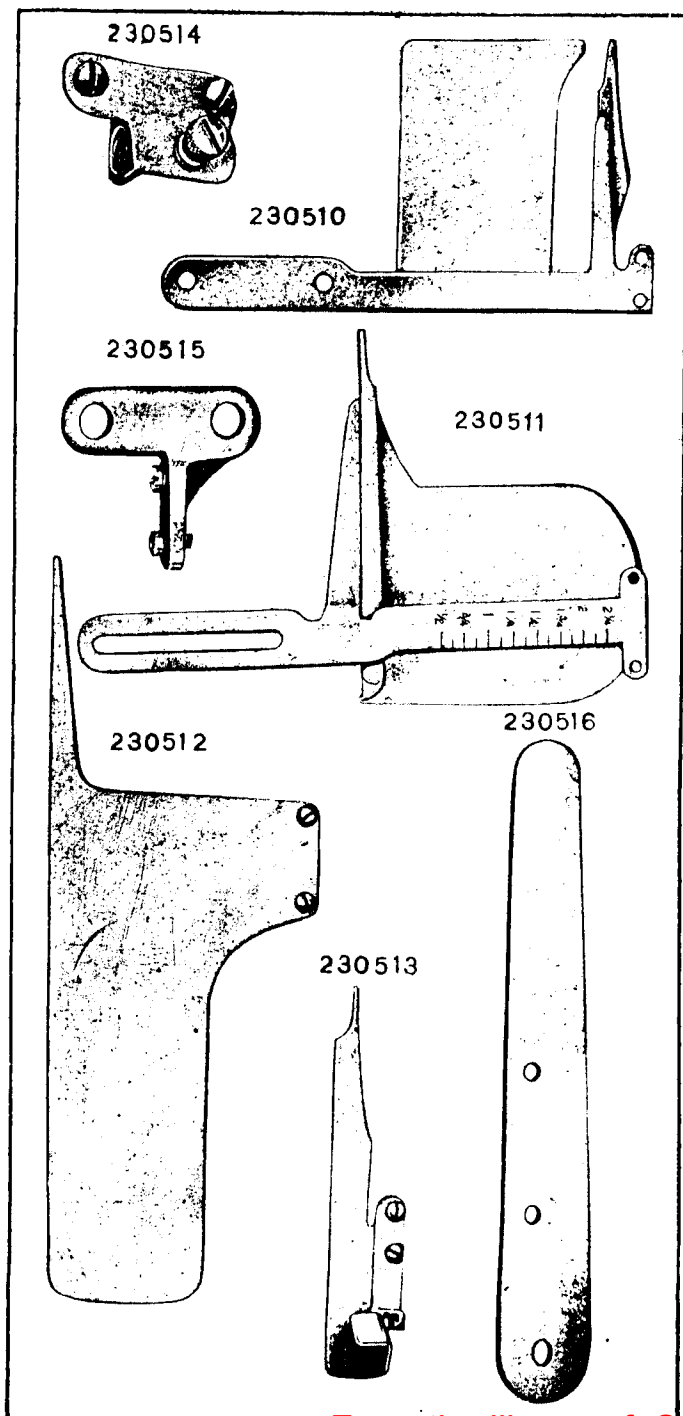


PLATE 14606--ONE-HALF SIZE

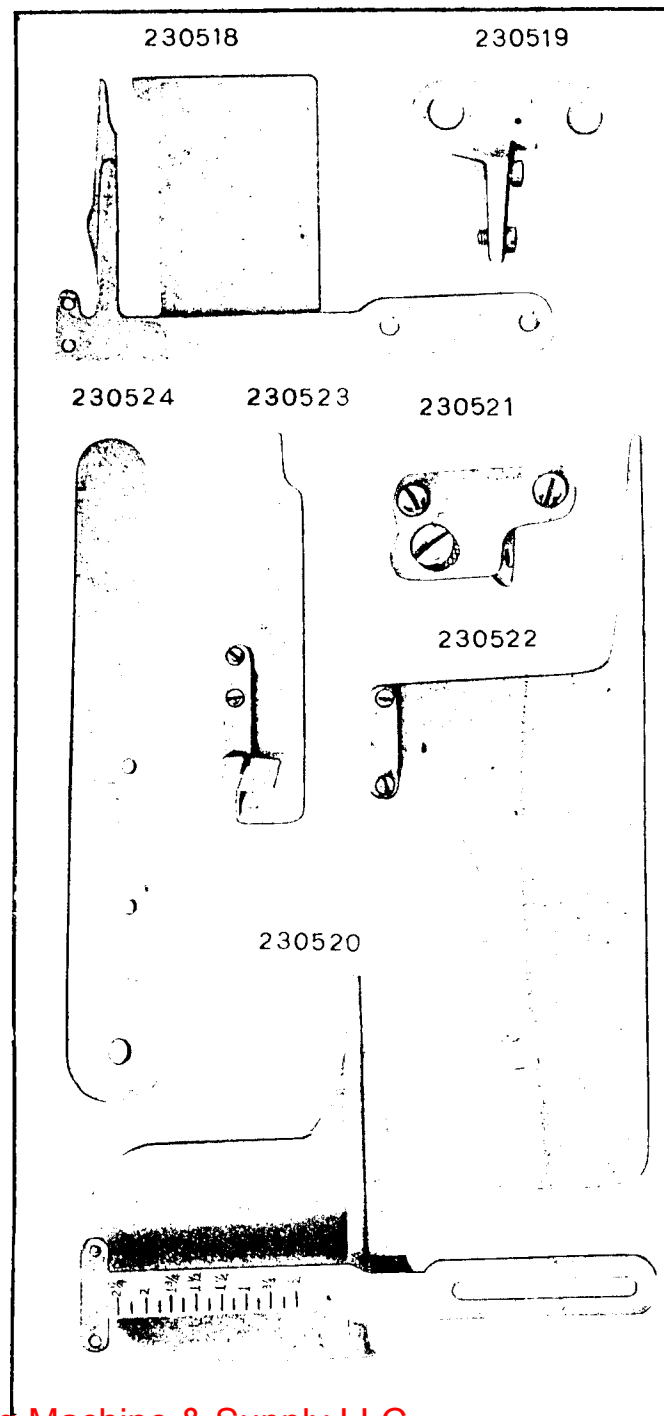


PLATE 14607—ONE-HALF SIZE

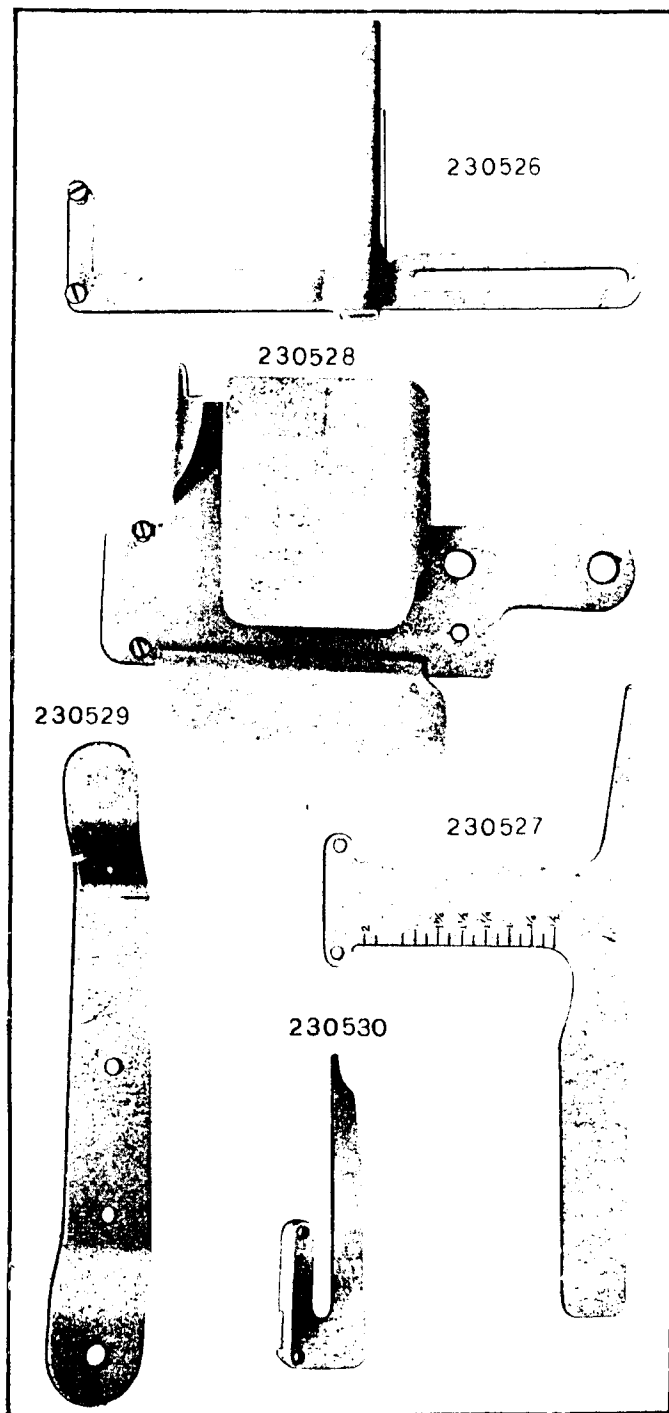


PLATE 14608—ONE-HALF SIZE

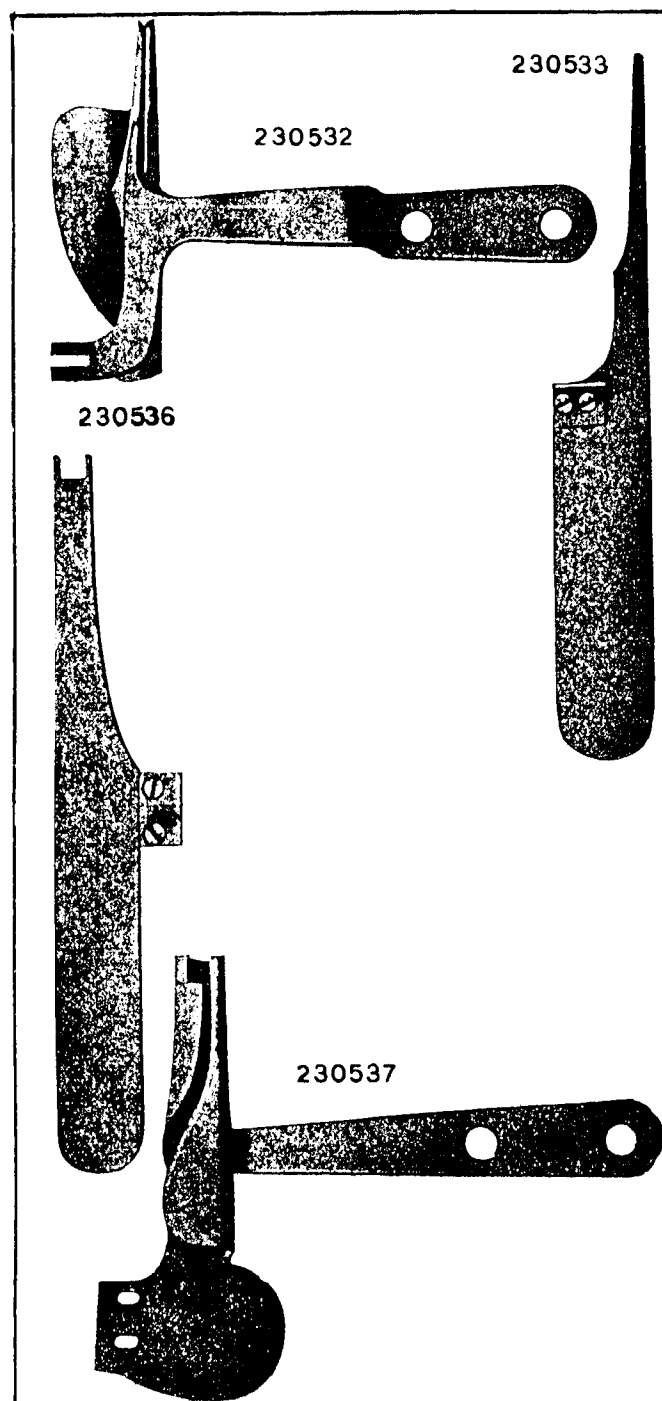


PLATE 14609-ONE-FOURTH SIZE

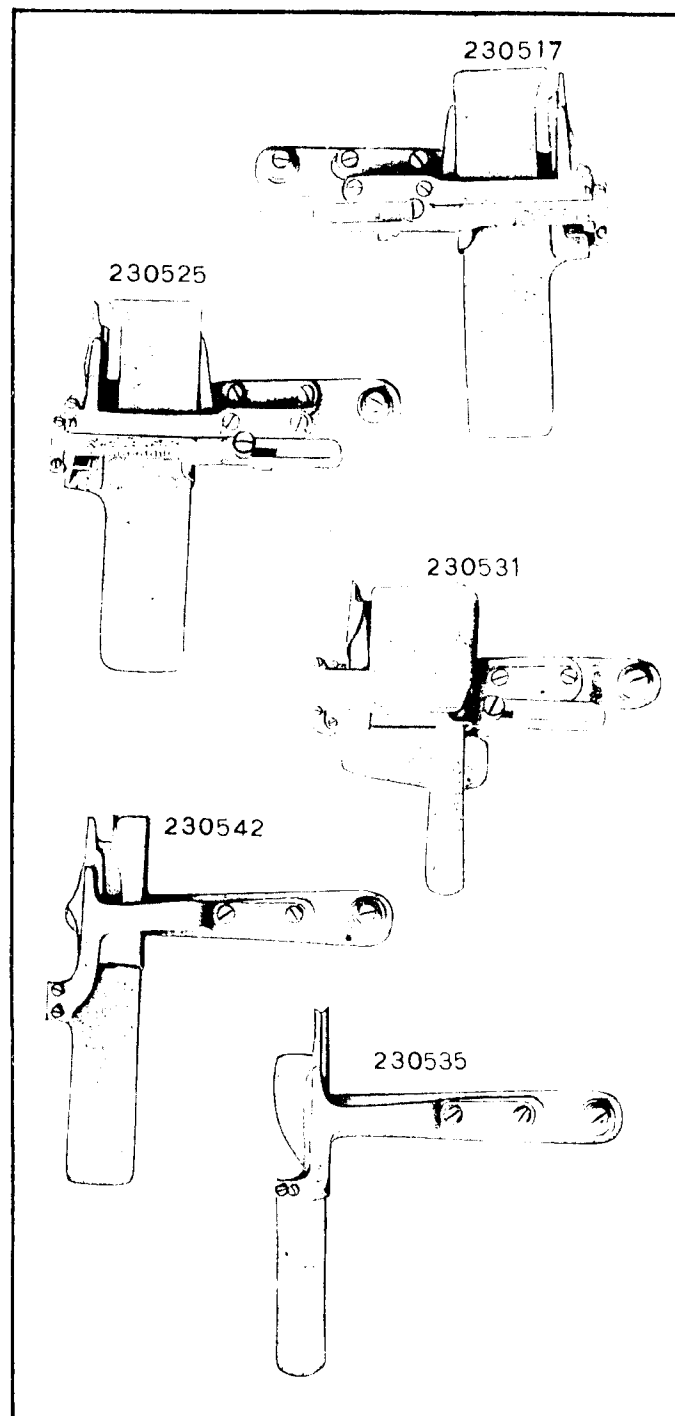


PLATE 13410- FULL SIZE

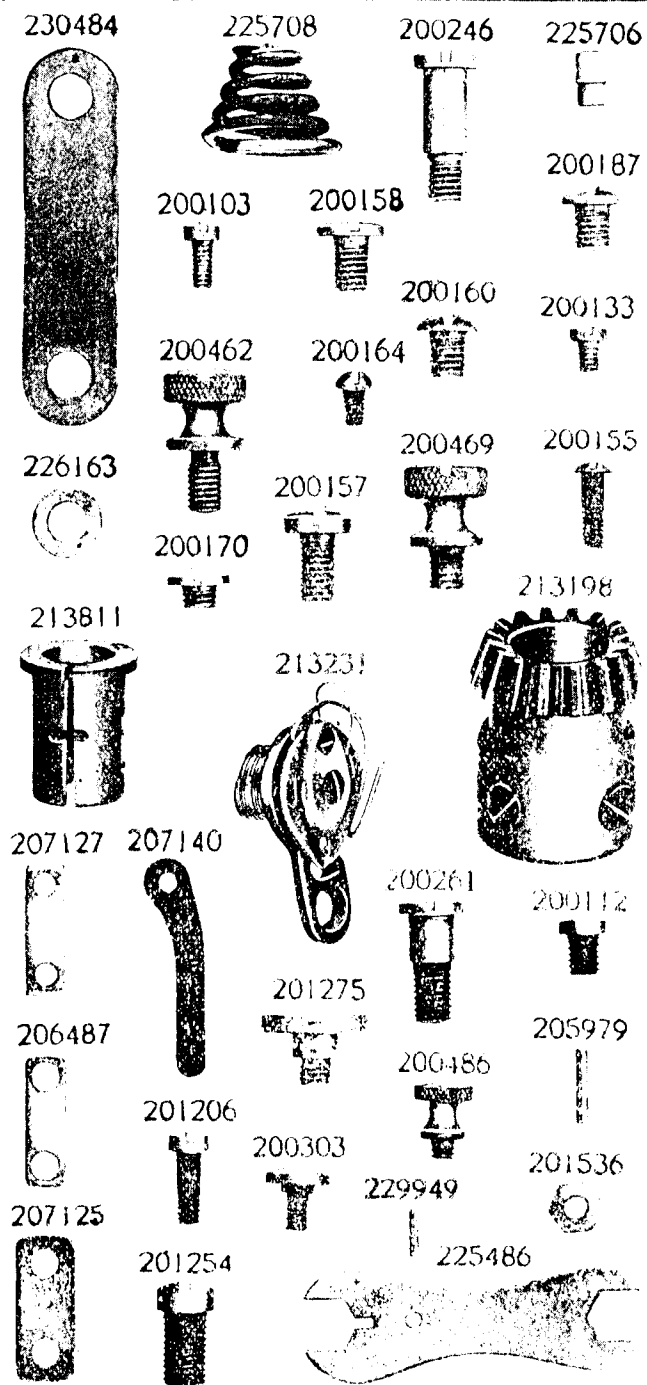


PLATE 13429-FULL SIZE

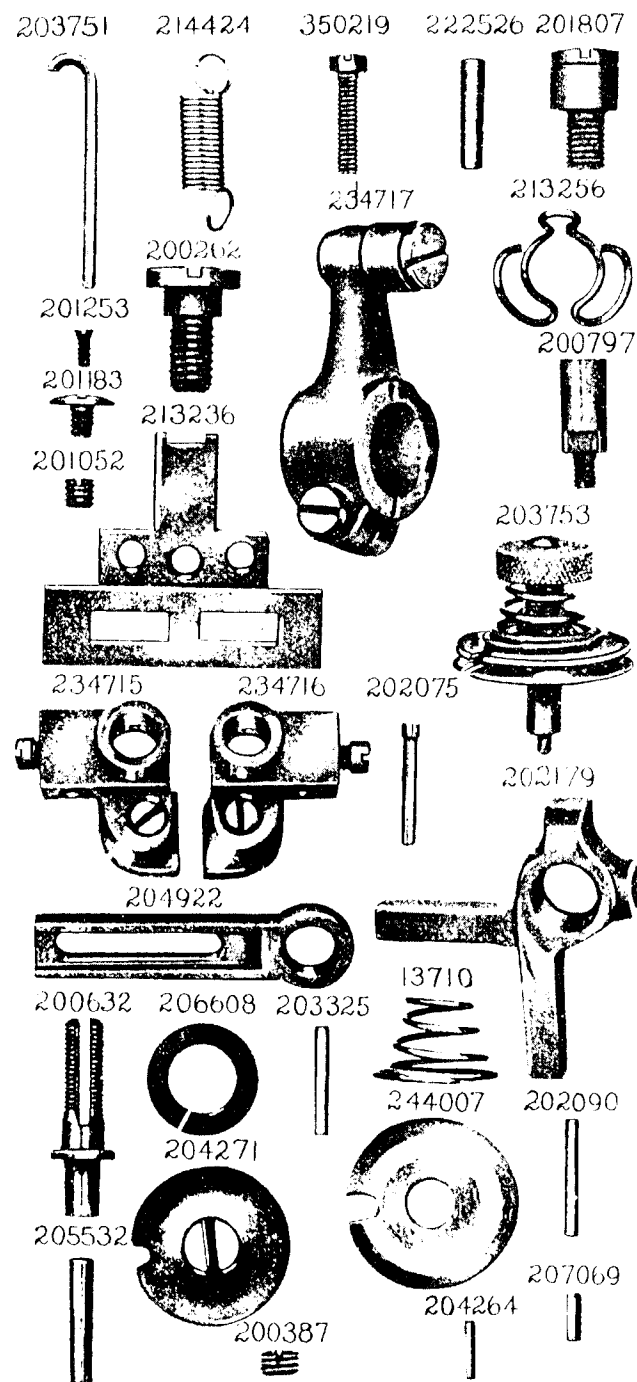


PLATE 13406—FULL SIZE

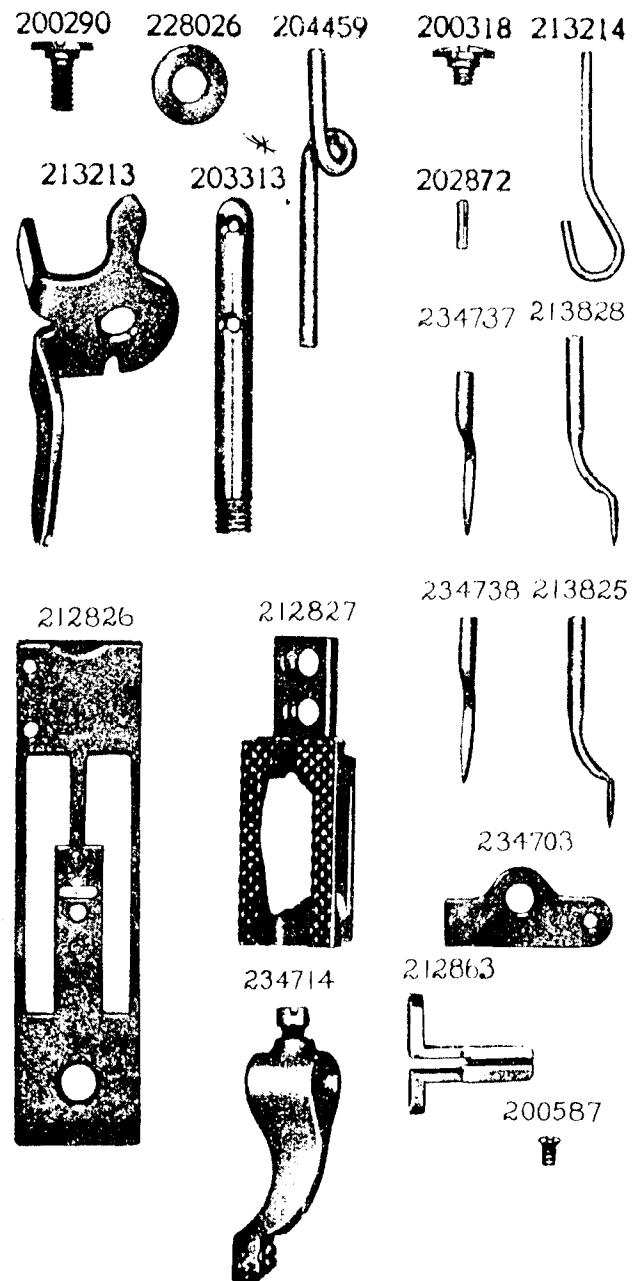


PLATE 13407—FULL SIZE

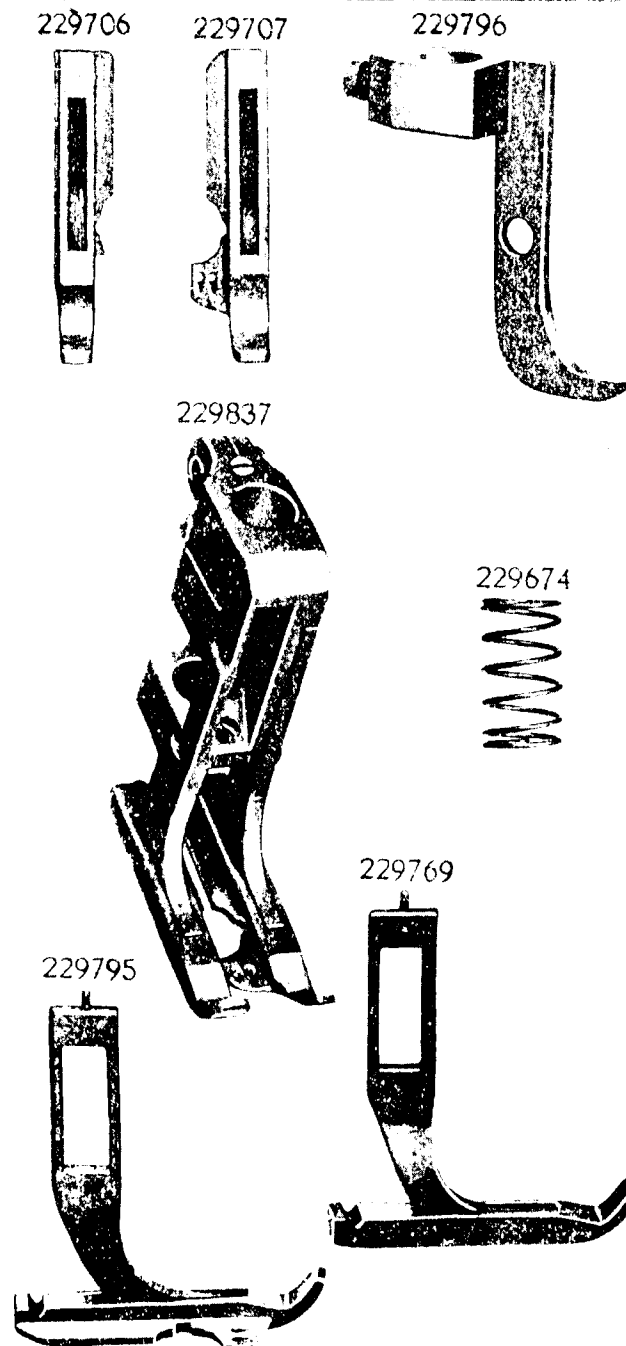


PLATE 13408--FULL SIZE

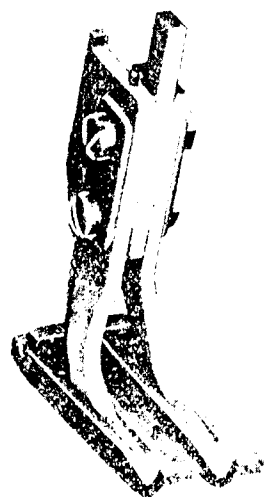
229725



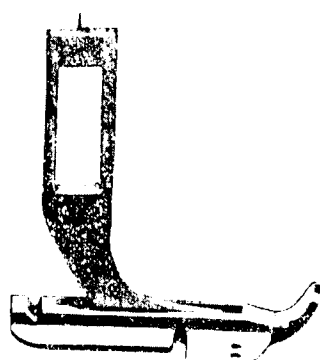
229726



229727



229764



229763

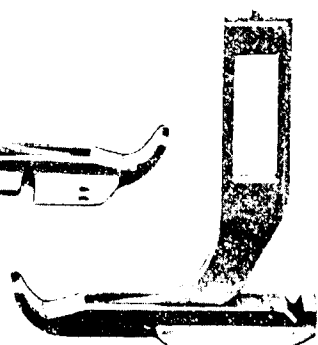
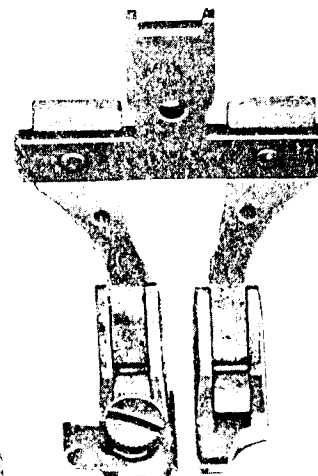


PLATE 13409--FULL SIZE

229731



229733



229732



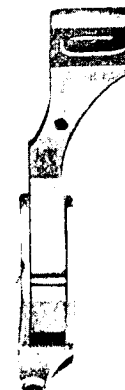
229791



213648



229792



229739



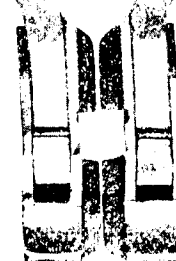
207137



207136



229738



229737

