

**SINGER**  
**112W120**

# LIST OF PARTS



## MACHINE No. 112w120

THE SINGER MANUFACTURING COMPANY

## INDEX

	Page
Accessories .....	14
Attachment Slide Plates .....	16
Bobbin Winder .....	14
Feed Dogs .....	16
Foot Lifter .....	27
Knee Lifter .....	15
Machine No. 112w120 .....	5
Miscellaneous Parts .....	28
Needle Holders .....	17
Numerical List of Parts .....	29
Obsolete Parts .....	28
Presser Feet .....	17
Thread Unwinder .....	15
Throat Plates .....	23

# 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 case), 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, Nickel Plated and Buffed.
- B. Polished, Nickel Plated and Buffed.
- C. Hardened only.
- D. Polished only.
- E. Soft, not polished.
- F. Hardened and Polished.
- H. Blued.
- J. Nickel Plated only.
- R. Merlized.
- X. Black Oxide.
- XC. Hardened and Black Oxide.
- Y. Blade Nickel only.

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

## In this series

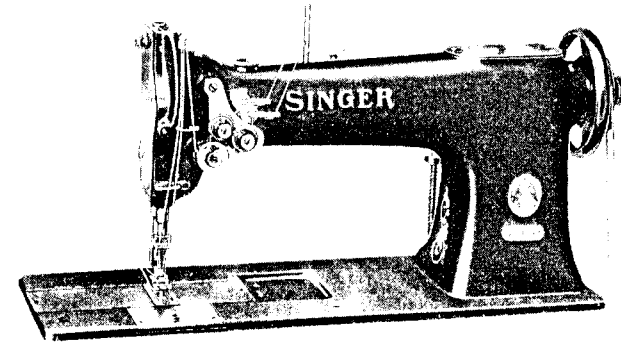
200001 to 201500 and 350001 to 351500 are Screw Numbers.  
201501 to 201800 and 351501 to 351800 are Nut Numbers.  
201801 to 202000 and 351801 to 352000 are Roller Numbers.  
202001 to 350000 are Numbers of Machine Parts.

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. 112w120

TWO NEEDLE. HIGH SPEED. DROP FEED.

For Shirts, Corsets, Underwear, etc.  
In Gauges from 1/32 to 1 1/2 inches.

No.	Plate	Name
*224199	-----	Arm with 202135
224196	16238	" Cap with 244071
244071	-----	" " Oil Wick
200278H	11321	" " Screw
202248	11321	" " " Washer
204235	11321	" Position Pin (2)
200004E	11321	" Screw (3)
202005	11321	" " Washer (3)
224137	16239	" Shaft with 200357E and 224392
237748	16238	" " Bushing (back) with 202260
202260	-----	" " " " Oil Packing (wick)
200071E	16236	" " " " Screw (3)
207080	16238	" " " (front) with 202244
202244	-----	" " " " Oil Packing (wick)

No.	Plate	Name
200502B	11321	Arm Shaft Bushing (front) Oil Packing Thumb Screw
200341C	11321	Arm Shaft Bushing (front) Set Screw
224103	16239	" " Connection Belt
224200	16238	" " " " Pulley with 200327C, 200602E and two 202253
200602E	11321	Arm Shaft Connection Belt Pulley Posi- tion Screw
200327C	11321	Arm Shaft Connection Belt Pulley Set Screw
202253	11321	Arm Shaft Connection Belt Pulley Spring Flange
224138	16236	Arm Shaft Connection Belt Timing Collar with 200113F
200113F	16236	Arm Shaft Connection Belt Timing Collar Set Screw
224139	16236	Arm Shaft Connection Belt Timing Plate
200164B	16236	" " " " " " Screw (2)
224392	-----	Arm Shaft Oil Packing (wick)
200357E	11321	" " " " Stop Screw
224144	16238	Attachment Slide Plate with 213479 and 236061
236061	16236	Attachment Slide Plate Friction Slide
213479	16236	" " " " " " Spring
235096	16239	Balance Wheel (disc) (belt groove 2-1/2 in. diam.) with 200328C and 200335C
200328C	11321	Balance Wheel Position Screw
200335C	11321	" " Set Screw
*224105	-----	Bed with 2003376
202258	16238	" Hinge Connection (2)
200570E	16236	" " " Screw (4)
54897	16236	" Oil Cup
223852	16239	" Slide (back)
223811	16236	" " " Stop
223812	16236	" " " Spring
223853	16239	" " (front), for use with Throat Plate in gauges from 1/32 to 1/2 inch
224043	16239	Bed Slide (front), for use with Throat Plates in gauges from 17/32 to 1 inch
224044	16239	Bed Slide (front), for use with Throat Plates in gauges from 1-1/32 to 1-1/2 inch
203470	16236	Bobbin (2)
*236691	-----	" Case
203648	16236	" " Latch
*202056	-----	" " " Pin
203473	16236	" " " Plunger
203474	16236	" " " Spring
241674	-----	" " Oiling Felt

No.	Plate	Name
241675	16236	Bobbin Case Oiling Felt Retainer
350405C	16236	" " " " " Screw
224004	16236	" " Opener
224005	16236	" " " Lever with 201349C, 201542C and 203101
201349C	16236	Bobbin Case Opener Lever Driving Screw Stud
201542C	16236	Bobbin Case Opener Lever Driving Screw Stud Nut
203101	-----	Bobbin Case Opener Lever Driving Screw Stud Oil Packing (wick)
223622	16236	Bobbin Case Opener Lever Hinge Stud with 202277
202277	-----	Bobbin Case Opener Lever Hinge Stud Oil Packing (wick)
200364C	16236	Bobbin Case Opener Lever Hinge Stud Set Screw
223623	16236	Bobbin Case Opener Lever Link
200118D	16237	" " " Screw
236083	16236	" " Tension Spring
201016F	16237	" " " " Regulating Screw
200594C	16237	" " " " Screw
203216	-----	" " Washer (cloth)
236692	16236	Bobbin Case complete, Nos. 200594C, 201016F 202056, 203216, 203473, 203474, 203648, 236083, 236691, 241674, 241675 and two 350405C
202274	13293	Face Plate
202135	16237	" " Position Pin
200462B	16237	" " Thumb Screw
224050	13290	Feed Bar with 200336E and 201535E
224051	-----	" " 224050 with 200040C, 224052 and 225837
350393C	16237	Feed Bar Hinge Screw (driving)
201518E	16237	" " " Nut
236401	13247	" Dog, for 236402
236403	13247	" " " 236405
236477	16229	" " " 236485
211669	13248	" " " 236427
211674	13248	" " " 236430
211679	13248	" " " 236433
211685	13249	" " " 236436
236439	13249	" " " 236441
211693	13250	" " " 236444
211698	13250	" " " 236450
236452	13251	" " " 236454
200106E	16237	" " Screw (2)
200336E	16237	" " Support Screw
201535E	16237	" " " Nut
224106	16239	" Driving Connection with 200049D and 202277

No.	Plate	Name
201407C	16237	Feed Driving Connection Hinge Screw
201517E	16237	" " " " " Nut
206758	-----	" " " " " 011
		Packing (wick)
202277	-----	Feed Driving Connection Oil Packing (wick)
200049D	16237	Feed Driving Connection Pinch Screw
202300	13267	" " Eccentric Regulating Bracket
224140	-----	" " " " " "
		202300 with 224200, two each 201408C and 201525E
201408C	13267	Feed Driving Eccentric Regulating Bracket Hinge Screw
201525E	13267	Feed Driving Eccentric Regulating Bracket Hinge Screw Nut
202301	13267	Feed Driving Eccentric Regulating Bracket Plunger
202595	13267	Feed Driving Eccentric Regulating Bracket Plunger Spring
200607C	13267	Feed Driving Eccentric Regulating Bracket Plunger Spring Stop Screw
201408C	13267	Feed Driving Eccentric Regulating Bracket Stop Screw
201525E	13267	Feed Driving Eccentric Regulating Bracket Stop Screw Nut
200429C	13267	Feed Driving Eccentric Regulating Screw
200383C	13267	" " " " " "
		Check Screw
223650	16239	Feed Driving Rock Shaft
223651	-----	" " " " " 223650 with 201518E, 224051 and 350393C
224141	13267	Feed Driving Rock Shaft Crank with 200019E
200019E	13267	Feed Driving Rock Shaft Crank Pinch Screw
202625	13267	Feed Driving Rock Shaft Stop Collar with two 200383C (2)
200383C	13267	Feed Driving Rock Shaft Stop Collar Set Screw
224154	16237	Feed Lifting Cam with 201220C
224052	13290	" " " " Fork with 200173D and 223655
200040C	16237	Feed Lifting Cam Fork Screw
225837	13290	" " " " " Washer
223655	-----	" " " " " Oiling Felt
200173D	13267	" " " " " Screw
201220C	13267	" " " " " Set Screw
224142	16238	" Regulating Spindle with 202311, 202443 and 202619
*202311	-----	Feed Regulating Spindle Head

No.	Plate	Name
202443	13267	Feed Regulating Spindle Head Pin
202619	13267	" " " " Position Pin
*224016	-----	Hook (sewing)
224017	16237	" 224016 with 203525, 224025, two each 200590H and 201253F
236694	-----	Hook and Bobbin Case complete, Nos. 224017 and 236692
224019	16237	Hook Bushing (lower) (bronze)
200364C	16236	" " " " Set Screw
224020	16237	" " (upper) (bronze)
200446C	13267	" " " Position Screw
223867	13234	" Driving Gear (spiral) with 200362C and 201222C (2)
201222C	13234	Hook Driving Gear Position Screw
200362C	13234	" " " Set Screw
224021	16237	" " Pinion (spiral) with two 200382C
200382C	16237	Hook Driving Pinion Set Screw
224022	16237	" " " Thrust Washer
224110	16239	" " Shaft
224111	13293	" " " Bushing with 202244
202244	-----	" " " " Oil Packing (wick)
200327C	11321	" " " " Set Screw
224112	13293	" " " Connection Belt Pulley with 202253 and two 201254C
201254C	13267	Hook Driving Shaft Connection Belt Pulley Set Screw
202253	11321	Hook Driving Shaft Connection Belt Pulley Spring Flange
203525	16237	Hook Gib
201253F	13234	" " Screw
240201	-----	" Oiling Felt
224023	13293	" Saddle 223849 with 200364C, 200446C, 224019 and 224020
224024	13293	Hook Saddle 223850 with 200364C, 200446C, 224019 and 224020
223849	-----	Hook Saddle (left) with 200009E
223850	-----	" " (right) with 200009E
223680	13293	" " Bearing (left)
200327C	11321	" " " " Set Screw
223681	13293	" " " (right)
200335C	11321	" " " " Set Screw
223682	16239	" " Oil Guard
223814	-----	" " " " Felt
200096D	13234	" " " " Screw (2)
200009E	13234	" " Pinch Screw
200006E	13234	" " Screw (2)
225585	13234	" " " Washer (2)
224026	-----	Hook Saddle (left) complete, Nos. 200119D, 200364C, 223622, 223623, 224004, 224005, 224021 to 224023 and 236694

No.	Plate	Name
224027	-----	Hook Saddle (right) complete, Nos. 200118D, 200364C, 223622, 223623, 224004, 224005, 224021, 224022, 224024 and 236694
224025	16237	Hook Washer
200590H	13267	" " Screw
240067	16239	Knee Lifter Connection Lever
200262H	16237	" " " " Hinge Screw
223684	16238	" " " " Lifting Rod with 202302
202302	13234	Knee Lifter Connection Lever Lifting Rod Cotter Pin
206628	13267	Knee Lifter Connection Lever Lifting Rod Spring
227227	13267	Knee Lifter Connection Lever Lifting Rod Spring Collar with 200113F
200113F	16236	Knee Lifter Connection Lever Lifting Rod Spring Collar Set Screw
240068	16239	Knee Lifter Lifting Lever
200262H	16237	" " " " Hinge Screw
223686	16240	Needle Bar
235871	16240	" " Bushing (lower)
235872	16240	" " " (upper)
200352C	16240	" " " Set Screw (2)
202552	13234	" " Connecting Link
264718	16240	" " " " Oil Guard
201183D	13290	" " " " " Screw
202333	16240	" " " " Stud with 202254
202254	-----	Needle Bar Connecting Link Stud Oil Pack- ing (wick)
200374C	13234	Needle Bar Connecting Link Stud Set Screw
200383C	13267	Needle Bar Connecting Link Stud Set Screw
223688	16240	Needle Bar Connecting Stud with 200072C and 202330
202330	-----	Needle Bar Connecting Stud Oil Packing (wick)
200072C	16240	Needle Bar Connecting Stud Pinch Screw
202692	13293	" " Crank with 200335C, 200374C, 200383C, 200428C and 202333
223877	-----	Needle Bar Crank 202692 with 202399, 202400, 202552, 223688 and 223881
203172	16240	Needle Bar Crank Friction Washer
200428C	16240	" " " Position Screw
200335C	11327	" " " Set Screw
236649	16228	" Holder, needles 1/8 in. apart and must be set diagonally, in gauges 1/32, 3/64 1/16 and 3/32 in., with 201030F and two 200141F

No.	Plate	Name
236650	16228	Needle Holder, needles 3/32 in. apart and must be set diagonally, in gauges 1/32 3/64 and 1/16 in., with 201030F and two 200141F
223878	16228	Needle Holder, in gauges from 3/32 to 1/2 in., in steps of 1/32 in., with 201030F and two 200141F
223879	16228	Needle Holder, in gauges from 17/32 to 23/32 in., in steps of 1/32 in., with 201030F and two 200141F
223880	16228	Needle Holder, in gauges from 25/32 to 1-1/2 in., in steps of 1/32 in., with 201030F and two 200141F
223863	16228	Needle Holder, in 3/4 in. gauge with 201030F and two 200141F
201030F	16240	Needle Holder Screw
200141F	16240	" Set Screw
208566	16238	Presser Bar with 200074F
207072	16240	" " Bushing (2)
200352C	16240	" " " Set Screw (2)
202554	16240	" " Lifter
200653C	16240	" " " Hinge Screw
244006	16241	" " Lifting Releasing Lever Bracket
200260D	16240	Presser Bar Lifting Releasing Lever Bracket Guide Screw
206608	16240	Presser Bar Lifting Releasing Lever Bracket Spring
235901	16241	Presser Bar Position Guide with 200054E
200054E	16240	" " " " Pinch Screw
207965	16239	" " Spring (flat)
210949	16241	" " " Bracket with 200086C
200086C	16240	" " " Pinch Screw
201410F	16241	" " " Regulating Thumb Screw
200948F	16241	" " Spring Support Screw
229092	16230	" Foot, 50 needle hole, needles 3/32 in. apart, in gauges 1/32, 3/64 and 1/16 inch
229102	13071	Presser Foot, 46 needle hole, in gauges from 3/32 to 7/32 in., in steps of 1/32 inch
229103	13071	Presser Foot, 46 needle hole, in gauges 1/4, 9/32 and 5/16 inch
229104	13071	Presser Foot, 46 needle hole, in gauges from 11/32 to 1/2 in., in steps of 1/32 inch
229105	13072	Presser Foot, 46 needle hole, in gauges 17/32 and 9/16 inch
229106	13072	Presser Foot, 46 needle hole, in gauges 19/32, 5/8, 21/32 and 11/16 inch

No.	Plate	Name
229107	13072	Presser Foot, 46 needle hole, in gauges 23/32 and 3/4 inch
229108	16235	Presser Foot, 46 needle hole, in gauges from 25/32 to 1 in., in steps of 1/32 inch
229110	16235	Presser Foot, 46 needle hole, in gauges from 1-1/32 to 1-1/2 in., in steps of 1/32 inch
200074F	16241	Presser Foot Screw
223881	16241	Take-up Lever
202399	16241	" " Driving Stud with 202277
202277	-----	" " " " Oil Packing (wick)
202400	16241	Take-up Lever Hinge Stud with 202423
202423	-----	" " " " Oil Packing (wick)
200383C	13267	" " " " Set Screw
202401	-----	" " Oiling Felt
200132E	16241	" " " " Screw
223702	15786	Tension Bracket with two each 201224B and 236060
200159F	16241	Tension Bracket Screw
223705	-----	Tension Bracket complete, Nos. 200978H, 201199F, 223702, 223703, 223706, 237174 two each 13710, 200309E, 204271, 223704, three 201572B and four 244048
244048	13234	Tension Disc
236060	15786	" " Position Pin
223703	15786	" Release Lever
235072	15786	" " " Rod
200309E	15786	" " " Screw
223704	15786	" " Plunger
204271	15786	" " Washer
13710	15786	" Spring
201224B	15786	" Stud
201572B	10886	" Thumb Nut
223706	15786	Thread Controller Disc
200978H	15786	" " " Screw
237174	15786	" " Spring
242117	15786	" " " Stop
200132E	16241	" " " " Screw
201199F	15786	" " Stud with 204925
200081C	13290	" " " Set Screw
201572B	10886	" " " Thumb Nut
204925	16241	" " " Washer
224028	16241	" Guide
236007	16241	" " (lower)
200582H	16241	" " " Screw (2)
202741	16241	" " (upper)
200397H	16241	" " " Set Screw
240034	16241	" Retainer (2)

No.	Plate	Name
236402	13247	Throat Plate, 50 needle hole, needles 3/32 in. apart, for needle sizes 14 and 15, in gauges 1/32, 3/64 and 1/16 in., for 236401
236405	13247	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 3/32, 1/8 and 5/32 in., for 236403
236485	16229	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 3/16 to 11/32 in., in steps of 1/32 in., for 236477
236427	13248	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 3/8, 13/32, 7/16, 15/32 and 1/2 in., for 211669
236430	13248	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 17/32, 9/16 and 19/32 in., for 211674
236433	13248	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 5/8, 21/32 and 11/16 in., for 211679
236436	13249	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 23/32, 3/4, 25/32, 13/16 and 27/32 in., for 211685
236441	13249	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 7/8, 29/32, 15/16, 31/32 and 1 in., for 236439
236444	13250	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 1-1/32 to 1-3/16 in., in steps of 1/32 in., for 211693
236450	13250	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 1-1/4, 1-9/32 and 1-5/16 in., for 211698
236454	13251	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 1-3/8 to 1-1/2 in., in steps of 1/32 in., for 236452
200161D	16228	Throat Plate Clamp Screw
203376	16228	" " Position Pin
691F	16228	" " Screw

## ACCESSORIES

No.	Plate	Name
200157B	16241	Attachment Screw
203470	16236	Bobbin (10)
*225482	-----	" Case Screw Driver Blade
*225483	-----	" " " " Handle
225497	14383	Bobbin Case Screw Driver complete, Nos. 225482 and 225483
135 x 7	-----	Needles, twelve, size 14
224121	-----	Drip Pan, 20 in. long, with four 1 in. wire nails
41400	14383	Machine Rest Pin (wood)
120342	14383	Oiler (copper plated) with 120343
120343	14383	" Spout, 3-1/2 in. long
*225484	-----	Screw Driver Blade
*225485	-----	" " Handle
225498	14383	Screw Driver complete, (7-1/4 in. long), Nos. 225484 and 225485
225554	14383	Wrench (steel)

## BOBBIN WINDER

(SWINGING AUTOMATIC, RIGHT HAND)

225453	10886	Frame with 202277 and 225438
225454	10886	" Hinge Pin
202277	-----	" Oil Packing (wick)
225438	10886	" " Well Cap
225455	10886	" Spring
225456	10886	" " Plunger
202473	10885	Pulley with 200380C
200380C	10886	" Set Screw
225381	10886	Spindle
225444	10886	Stop Latch
200056E	10886	" " Screw
225458	10886	" " Thumb Lever
225459	10886	" " " " Hinge Stud
225459	10886	" " " " Joint Stud
202478	10886	" " Trip Lever
200299H	10886	" " " " Hinge Screw
225461	10886	Tension Bracket with 201499B
200082D	10886	" " Screw
228026	10886	" " " " Washer
2102	10886	" Disc
202407	10886	" Spring
201499B	10886	" Stud
201572B	10886	" " Thumb Nut

No.	Plate	Name
225462	-----	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. 200056E, 200082D, 200299H, 202473, 202478, 225381, 225433, 225444, 225453 to 225456, 225458, 225462, 228026, two each 225459 and wood screws 3/4 in., No. 13, R. H. B.

## KNEE LIFTER

228294	15911	Rock Lever with two 356C
228295	15911	" " Bracket with 356C and four wood screws 7/8 in., No. 12
228299	-----	Rock Lever Bracket 228295 with 228294 and 228297
228296	15911	Rock Lever Extension with 200529C
356C	15911	" " " " Set Screw
228297	15911	" " Hinge Pin
356C	15911	" " " " Set Screw
202455	15911	" " Knee Arm
356C	15911	" " " " Set Screw
228284	15911	" " " Plate with 356C
356C	15911	" " " " Set Screw
227728	15911	" " Rod with 227729
*227729	-----	" " Cap
200529C	15911	" " " Set Screw
228298	15911	Knee Lifter Rock Lever complete, Nos. 202455, 227728, 228284, 228296 and 228299

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

## THREAD UNWINDER

225259	15815	Spool Rest (for one spool) (flat) with 201018C
225257	15815	Spool Rest (for two spools) (flat) with 201018C
150203	-----	Spool Rest Cushion (felt)
225388	15815	" " Rod
200383C	13267	" " " Set Screw
201018C	16228	" " Set Screw



## ACCESSORIES

No.	Plate	Name
202490	15815	Spool Stand with 200383C
225391	15815	Thread Guide
201696J	16228	" " Lock Nut
225326	16228	" " Position Cup
225324	15815	" " Rod with 208E and 225322
208E	16288	" " " Screw
225322	16228	" " " Washer
259143	15815	Thread Unwinder (for three spools) complete, Nos. 201696J, 202490, 225257, 225259, 225324, 225326, 225388, three each 150203, 225391 and wood screws 7/8 in. No. 12

## ATTACHMENT SLIDE PLATES

224144	16238	Attachment Slide Plate with 213479 and 236061
224146	16238	Attachment Slide Plate with 213479 and 236061, for use with depressed Throat Plates

## FEED DOGS

211669	13248	Feed Dog, for 236427 to 236429
211674	13248	" " " 236430 to 236432
211679	13248	" " " 236433 to 236435
211684	13249	" " " 236436 to 236438
211685	13249	" " " 236436 to 236438
211693	13250	" " " 236444 to 236446
211694	13250	" " " 236444 to 236446
211698	13250	" " " 236450 and 236451
211739	13253	" " " 236462 and 236472
212571	13252	" " " 236408 to 236410
236401	13247	" " " 236402
236403	13247	" " " 236404 to 236406
236411	13252	" " " 236412 to 236414
236415	13247	" " " 236417, 236418 and 236465
236416	13247	" " " 236417, 236418 and 236465
236419	13252	" " " 236420 to 236422
236423	13252	" " " 236424 to 236426
236439	13249	" " " 236441 to 236443
236440	13249	" " " 236441 to 236443
236447	13254	" " " 236448 to 236449

## FEED DOGS

No.	Plate	Name
236452	13251	Feed Dog, for 236454 and 236455
236453	13251	" " " 236454 and 236455
236456	13254	" " " 236457
236458	13253	" " " 236459 to 236461
236464	13253	" " " 236463 and 236467
236466	13253	" " " 236462 and 236472
236469	16229	" " " 236468
236470	16229	" " " 236417, 236418 and 236465
236471	16229	" " " 236457
236477	16229	" " " 236485

## NEEDLE HOLDERS

236650	16228	Needle Holder, needles 3/32 in. apart and must be set diagonally, in gauges 1/32 3/64 and 1/16 in., with 201030F and two 200141F
236649	16228	Needle Holder, needles 1/8 in. apart and must be set diagonally, in gauges 1/32 3/64, 1/16 and 3/32 in., with 201030F and two 200141F
223878	16228	Needle Holder, in gauges from 3/32 to 1/2 in., in steps of 1/32 in., with 201030F and two 200141F
223879	16228	Needle Holder, in gauges from 17/32 to 23/32 in., in steps of 1/32 in., with 201030F and two 200141F
223863	16228	Needle Holder, in 3/4 in., gauge with 201030F and two 200141F
223880	16228	Needle Holder, in gauges from 25/32 to 1-1/2 in. in steps of 1/32 in., with 201030F and two 200141F

## PRESSER FEET

229008	16230	Presser Foot, 50 needle hole, needles 3/32 in. apart, in gauges 1/32, 3/64 and 1/16 inch
229092	16230	Presser Foot, 50 needle hole, needles 3/32 in. apart, in gauges 1/32, 3/64 and 1/16 inch
229101	13071	Presser Foot, 50 needle hole, needles 3/32 in. apart, in gauges 1/32, 3/64 and 1/16 inch

## PRESSER FEET

No.	Plate	Name
229102	13071	Presser Foot, 46 needle hole, in gauges from 3/32 to 7/32 in., in steps of 1/32 inch
229103	13071	Presser Foot, 46 needle hole, in gauges 1/4, 9/32 and 5/16 inch
229104	13071	Presser Foot, 46 needle hole, in gauges from 11/32 to 1/2 in., in steps of 1/32 inch
229105	13072	Presser Foot, 46 needle hole, in gauges 17/32 and 9/16 inch
229106	13072	Presser Foot, 46 needle hole, in gauges 19/32, 5/8, 21/32 and 11/16 inch
229107	13072	Presser Foot, 46 needle hole, in gauges 23/32 and 3/4 inch.
229108	16235	Presser Foot, 46 needle hole, in gauges from 25/32 to 1 in., in steps of 1/32 inch
229110	16235	Presser Foot, 46 needle hole, in gauges from 1-1/32 to 1-1/2 in., in steps of 1/32 inch
222226	16230	Presser Foot, 46 needle hole, in gauges 3/16, 7/32 and 1/4 inch
229542	16230	Presser Foot, 46 needle hole, in gauges from 1/8 to 1/2 in., in steps of 1/32 in., with 200172H and 229541
229559	16234	Presser Foot, 50 needle hole, needles 3/32 in apart, in gauges 1/32, 3/64 and 1/16 in., for felling
229572	13071	Presser Foot, 50 needle hole, needles 3/32 in apart, in gauges 1/32, 3/64 and 1/16 inch
229573	13071	Presser Foot, 46 needle hole, in gauges from 3/32 to 1/4 in., in steps of 1/32 inch
229575	13071	Presser Foot, 46 needle hole, in gauges from 9/32 to 17/32 in., in steps of 1/32 inch
229577	13072	Presser Foot, 46 needle hole, in gauges from 9/16 to 23/32 in., in steps of 1/32 inch
229578	13072	Presser Foot, 46 needle hole, in gauges from 3/4 to 1-1/4 in., in steps of 1/32 inch
229604	16230	Presser Foot, 46 needle hole, in gauges from 1-9/32 to 1-1/2 in., in steps of 1/32 inch
224153	16230	Presser Foot, 50 needle hole, needles 3/32 in. apart, in gauges 1/32, 3/64 and 1/16 in. with 200175H and 224150, for stitching shoe vamps

## PRESSER FEET

No.	Plate	Name
224148	16230	Presser Foot, 46 needle hole, in gauges from 3/32 to 1/4 in., in steps of 1/32 in., with 200175H and 224150, for stitching shoe vamps
224149	16230	Presser Foot Spring Guide (left)
224150	16230	" " " " (right)
200175H	16230	" " " " Screw
230795	16237	" " Hinge Pin
202090	16230	" " " "
229013	-----	" " Plate, for 229012
229014	-----	" " " " 229015
229093	-----	" " " " 229094
229095	-----	" " " " 229096
229097	-----	" " " " 229098
229099	-----	" " " " 229100
229128	-----	" " " " 229129
229132	-----	" " " " 229133
229134	-----	" " " " 229135
229138	-----	" " " " 229139
229140	-----	" " " " 229141
229162	-----	" " " " 229163
229261	-----	" " " " 229262
229263	-----	" " " " 229264
229276	-----	" " " " 229278
229279	-----	" " " " 229280
229281	-----	" " " " 229282
229283	-----	" " " " 229284
229285	-----	" " " " 229286
229720	-----	" " " " 230697
230830	-----	" " " " 230831
229184	-----	" " " " 229935
223900	-----	" " " " 223901
223903	-----	" " " " 223904
229195	-----	" " " " 229167
229168	-----	" " " " 229169
229164	-----	" " " " 229188
229191	-----	" " " " 229192
229193	-----	" " " " 229194
229197	-----	" " " " 229198
229201	-----	" " " " 229202
229203	-----	" " " " 229204
229215	-----	" " " " 229216
229217	-----	" " " " 229218
229321	-----	" " " " 229322
229368	-----	" " " " 229369
229560	-----	" " " " 229561
229839	-----	" " " " 229840
229964	-----	" " " " 229965
229144	-----	" " " " 229145
229146	-----	" " " " 229147

## PRESSER FEET

No.	Plate	Name
229148	-----	Presser Foot Plate, for 229149
229152	-----	" " " " 229153
202923	-----	" " Shank
202926	-----	" " "
202930	-----	" " "
229277	-----	" " "
202989	16230	" " Spring
229541	16230	" " " Guide, in gauges from 1/8 to 1/2 in., in steps of 1/32 inch
200172H	16230	Presser Foot Spring Guide Screw
229012	16232	Presser Foot (hinged) complete, 46 needle hole, in gauges from 15/32 to 5/8 in., in steps of 1/32 in., Nos. 202926, 229013 and 230795
229015	16231	Presser Foot (hinged) complete, 46 needle hole, in gauges from 17/32 to 3/4 in., in steps of 1/32 in., Nos. 202923, 229014 and 230795
229094	16231	Presser Foot (hinged) complete, 46 needle hole, in gauges 1/8, 5/32 and 3/16 in., Nos. 202923, 229093 and 230795
229096	16231	Presser Foot (hinged) complete, 46 needle hole, in gauges 7/32, 1/4, 9/32 and 5/16 in., Nos. 202923, 229095 and 230795
229098	16231	Presser Foot (hinged) complete, 46 needle hole, in gauges 11/32, 3/8, 13/32 and 7/16 in., Nos. 202923, 229097 and 230795
229100	16231	Presser Foot (hinged) complete, 46 needle hole, in gauges from 15/32 to 5/8 in., in steps of 1/32 in., Nos. 202923, 229099 and 230795
229129	13079	Presser Foot (hinged) complete, 50 needle hole, needles 3/32 in. apart, in gauges 1/32, 3/64 and 1/16 in., Nos. 202923, 229128 and 230795
229133	13079	Presser Foot (hinged) complete, 46 needle hole, in gauges 7/32, 1/4, 9/32 and 5/16 in., Nos. 202923, 229132 and 230795
229135	13079	Presser Foot (hinged) complete, 46 needle hole, in gauges 11/32, 3/8, 13/32 and 7/16 in., Nos. 202923, 229134 and 230795
229139	13080	Presser Foot (hinged) complete, 46 needle hole, in gauges from 15/32 to 5/8 in., in steps of 1/32 in., Nos. 202923, 229138 and 230795
229141	13080	Presser Foot (hinged) complete, 46 needle hole, in gauges 21/32, 11/16, 23/32 and 3/4 in., Nos. 202923, 229140 and 230795

## PRESSER FEET

No.	Plate	Name
229163	13079	Presser Foot (hinged) complete, 50 needle hole, in gauges 3/32, 1/8, 5/32 and 3/16 in., Nos. 202923, 229162 and 230795
229262	13095	Presser Foot (hinged) complete, 46 needle hole, in gauges from 3/16 to 3/8 in., in steps of 1/32 in., Nos. 202090, 202923 and 229261
229264	13095	Presser Foot (hinged) complete, 46 needle hole, in gauges 13/32, 7/16, 15/32 and 1/2 in., Nos. 202090, 202923 and 229263
229278	13095	Presser Foot (hinged) complete, 46 needle hole, in gauges 1/8, 5/32, 3/16 and 7/32 in., Nos. 202090, 229276 and 229277
229280	13095	Presser Foot (hinged) complete, 46 needle hole, in gauges 1/4, 9/32 and 5/16 in., Nos. 202090, 229277 and 229279
229282	13095	Presser Foot (hinged) complete, 46 needle hole, in gauges 11/32, 3/8, 13/32 and 7/16 in., Nos. 202090, 229277 and 229281
229284	13095	Presser Foot (hinged) complete, 46 needle hole, in gauges 1/2, 17/32 and 9/16 in., Nos. 202090, 229277 and 229283
229286	16231	Presser Foot (hinged) complete, 46 needle hole, in gauges 19/32, 5/8, 21/32 and 11/16 in., Nos. 202090, 229277 and 229285
230697	16232	Presser Foot (hinged) complete, 46 needle hole, in gauges from 3/16 to 1/2 in., in steps of 1/32 in., Nos. 202090, 202923 and 229720, for strip work
230831	16232	Presser Foot (hinged) complete, 46 needle hole, in 3/4 in. gauge, Nos. 202923, 230795 and 230830, for felling
229935	16232	Presser Foot (hinged) complete, 46 needle hole, in gauges 7/32, 1/4, 9/32 and 5/16 in., Nos. 202926, 229184 and 230795.
		Hinge pin set back 1/16 in. from regular, for felling
223901	16232	Presser Foot (hinged) complete, 50 needle hole, needles 3/32 in. apart, in 1/16 in. gauge, Nos. 202090, 202923 and 223900, for felling
223904	16232	Presser Foot (hinged) complete, 50 needle hole, in gauges 3/32, 1/8, 5/32 and 3/16 in., Nos. 202923, 223903 and 230795, for felling
229167	16232	Presser Foot (hinged) complete, 46 needle hole, in gauges 7/32, 1/4, 9/32 and 5/16 in., Nos. 202923, 229195 and 230795, for felling

No.	Plate	Name
229169	16233	Presser Foot (hinged) complete, 46 needle hole, in gauges 7/32, 1/4, 9/32 and 5/16 in., Nos. 202923, 229168 and 230795, for felling
229188	16233	Presser Foot (hinged) complete, 46 needle hole, in gauges 1/8, 5/32 and 3/16 in., Nos. 202926, 229164 and 230795. Hinge pin set back 1/16 in. from regular, for felling
229192	16233	Presser Foot (hinged) complete, 50 needle hole, needles 3/32 in. apart, in gauges 1/32, 3/64 and 1/16 in., Nos. 202923, 229191 and 230795, for felling
229194	16233	Presser Foot (hinged) complete, 46 needle hole, in gauges 3/32, 1/8, 5/32 and 3/16 in., Nos. 202923, 229193 and 230795, for felling
229198	16233	Presser Foot (hinged) complete, 46 needle hole, in gauges 11/32, 3/8, 13/32 and 7/16 in., Nos. 202923, 229197 and 230795 for felling
229202	16233	Presser Foot (hinged) complete, 46 needle hole, in gauges from 15/32 to 5/8 in., in steps of 1/32 in., Nos. 202923, 229201 and 230795, for felling
229204	16233	Presser Foot (hinged) complete, 46 needle hole, in gauges 21/32, 11/16, 23/32 and 3/4 in., Nos. 202923, 229203 and 230795, for felling
229216	16234	Presser Foot (hinged) complete, 46 needle hole, in gauges 7/32, 1/4, 9/32 and 5/16 in., Nos. 202926, 229215 and 230795. Hinge pin set back 1/16 in. from regular, for felling
229218	16234	Presser Foot (hinged) complete, 46 needle hole, in gauges 1/8, 5/32 and 3/16 in., Nos. 202930, 229217 and 230795. Hinge pin set back 1/8 in. from regular, for felling
229322	16234	Presser Foot (hinged) complete, 46 needle hole, in gauges 1/8, 5/32 and 3/16 in., Nos. 202926, 229321 and 230795. Hinge pin set back 1/16 in. from regular, for felling
229369	16234	Presser Foot (hinged) complete, 46 needle hole, in gauges 1/8, 5/32 and 3/16 in., Nos. 202923, 229368 and 230795, for felling

No.	Plate	Name
229561	16234	Presser Foot (hinged) complete, 46 needle hole, in gauges 11/32, 3/8, 13/32 and 7/16 in., Nos. 202926, 229560 and 230795 Hinge pin set back 1/16 in. from regular, for felling
229840	16234	Presser Foot (hinged) complete, 46 needle hole, in gauges 21/32, 11/16, 23/32 and 3/4 in., Nos. 202926, 229839 and 230795, for felling
229965	16234	Presser Foot (hinged) complete, 46 needle hole, in gauges from 15/32 to 5/8 in., in steps of 1/32 in., Nos. 202930, 229964 and 230795. Hinge Pin set back 1/8 in. from regular, for felling
229145	13080	Presser Foot (hinged) complete, 46 needle hole, in gauges from 25/32 to 15/16 in., in steps of 1/32 in., Nos. 202923, 229144 and 230795
229147	13080	Presser Foot (hinged) complete, 46 needle hole, in gauges 31/32, 1, 1-1/32 and 1-1/16 in., Nos. 202923, 229146 and 230795
229149	16235	Presser Foot (hinged) complete, 46 needle hole, in gauges 1-3/32, 1-1/8, 1-5/32 and 1-3/16 in., Nos. 202923, 229148 and 230795
229153	16235	Presser Foot (hinged) complete, 46 needle hole, in gauges from 1-7/32 to 1-7/16 in., in steps of 1/32 in., Nos. 202923, 229152 and 230795

## THROAT PLATES

236402	13247	Throat Plate, 50 needle hole, needles 3/32 in. apart, for needle sizes 14 and 15, in gauges 1/32, 3/64 and 1/16 in., for 236401 Nos. 236404 to 236406, for 236403
236404	13247	Throat Plate, 53 needle hole, for needle sizes 12 and 13, in gauges 3/32, 1/8 and 5/32 inch
236405	13247	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 3/32, 1/8 and 5/32 inch
236406	13247	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges 3/32 and 1/8 inch

## THROAT PLATES

No.	Plate	Name
		Nos. 236408 to 236410, for 212571
236408	13252	Throat Plate, 53 needle hole, for needle sizes 12 and 13, in gauges 3/16 and 7/32 inch
236409	13252	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 3/16 and 7/32 inch
236410	13252	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges 5/32 and 3/16 inch
		Nos. 236412 to 236414, for 236411
236412	13252	Throat Plate, 53 needle hole, for needle sizes 12 and 13, in gauges 1/4 and 9/32 inch
236413	13252	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 1/4 and 9/32 inch
236414	13252	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges 7/32 and 1/4 inch
236417	13247	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 7/32 to 7/16 in., in steps of 1/32 in., for 236415, 236416 and 236470
236418	13247	Throat Plate, 40 needle hole, for needle size 20, in gauges from 1/4 to 7/16 in., in steps of 1/32 in., for 236415, 236416 and 236470
		Nos. 236420 to 236422, for 236419
236420	13252	Throat Plate, 53 needle hole, for needle sizes 12 and 13, in gauges 9/32 and 5/16 inch
236421	13252	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 9/32 and 5/16 inch
236422	13252	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges 9/32 to 5/16 inch
		Nos. 236424 to 236426, for 236423
236424	13252	Throat Plate, 53 needle hole, for needle sizes 12 and 13, in gauges 11/32 and 3/8 inch
236425	13252	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 11/32 and 3/8 inch
236426	13252	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges 11/32 and 3/8 inch

## THROAT PLATES

No.	Plate	Name
		Nos. 236427 to 236429, for 211669
236427	13248	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 3/8, 13/32, 7/16, 15/32 and 1/2 inch
236428	13248	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges 3/8, 13/32, 7/16, 15/32 and 1/2 inch
236429	13248	Throat Plate, 40 needle hole, for needle size 20, in gauges 13/32, 7/16, 15/32 and 1/2 inch
		Nos. 236430 to 236432, for 211674
236430	13248	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 1/2, 17/32, 9/16, 19/32 and 5/8 inch
236431	13248	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges 1/2, 17/32, 9/16, 19/32 and 5/8 inch
236432	13248	Throat Plate, 40 needle hole, for needle size 20, in gauges 1/2, 17/32, 9/16, 19/32 and 5/8 inch
		Nos. 236423 to 236435, for 211679
236433	13248	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 9/16 to 23/32 in., in steps of 1/32 inch
236434	13248	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges from 9/16 to 23/32 in., in steps of 1/32 inch
236435	13248	Throat Plate, 40 needle hole, for needle size 20, in gauges from 9/16 to 23/32 in., in steps of 1/32 inch
		Nos. 236436 to 236438, for 211684 and 211685
236436	13249	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 23/32 to 7/8 in., in steps of 1/32 inch
236437	13249	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges from 23/32 to 7/8 in., in steps of 1/32 inch
236438	13249	Throat Plate, 40 needle hole, for needle size 20, in gauges from 23/32 to 7/8 in., in steps of 1/32 inch
		Nos. 236441 to 236443, for 236439 and 236440
236441	13249	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 13/16 to 1-1/8 in., in steps of 1/32 inch
236442	13249	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges from 13/16 to 1-1/8 in., in steps of 1/32 inch
236443	13249	Throat Plate, 40 needle hole, for needle size 20, in gauges from 13/16 to 1-1/8 in., in steps of 1/32 inch

## THROAT PLATES

No.	Plate	Name
		Nos. 236444 to 236446, for 211693 and 211694
236444	13250	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 1 to 1-3/16 in., in steps of 1/32 inch
236445	13250	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges from 1 to 1-3/16 in., in steps of 1/32 inch
236446	13250	Throat Plate, 40 needle hole, for needle size 20, in gauges from 1 to 1-3/16 in., in steps of 1/32 inch
236448	13254	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 1-1/16 to 1-1/4 in., in steps of 1/32 inch
236449	13254	Throat Plate, 40 needle hole, for needle size 20, in gauges from 1-1/16 to 1-1/4 in., in steps of 1/32 inch
236450	13250	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 1-1/4, 1-9/32 and 1-5/16 in., for 211698
236451	13250	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges 1-1/4, 1-9/32 and 1-5/16 in., for 211698
236454	13251	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 1-3/8 to 1-1/2 in., in steps of 1/32 in., for 236452 and 236453
236455	13251	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges from 1-3/8 to 1-1/2 in., in steps of 1/32 in., for 236452 and 236453
236457	13254	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges from 3/16 to 3/8 in., in steps of 1/32 in., for 236456 and 236471
		Nos. 236459 to 236461, for 236458
236459	13253	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 3/16, 7/32, 1/4, 9/32 and 5/16 inch
236460	13253	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges 3/16, 7/32, 1/4, 9/32 and 5/16 inch
236461	13253	Throat Plate, 40 needle hole, for needle sizes 20, in gauges 3/16, 7/32, 1/4, 9/32 and 5/16 inch
236462	13253	Throat Plate, 40 needle hole, for needle size 20, in gauges from 1/4 to 1/2 in., in steps of 1/32 inch, for 211739 and 236466

## THROAT PLATES

No.	Plate	Name
236463	13253	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges 5/32 and 3/16 in., for 236464
236465	13247	Throat Plate, 46 needle hole, for needle sizes 16 and 18, in gauges from 1/4 to 7/16 in., in steps of 1/32 in., for 236415, 236416 and 236470
236467	13253	Throat Plate, 53 needle hole, for needle sizes 12 and 13, in gauges 1/8, 5/32 and 3/16 in., for 236464
236468	16229	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 1 to 1-3/16 in., in steps of 1/32 in., for 236469
236472	16229	Throat Plate, 50 needle hole, for needle sizes 14 and 15, in gauges from 1/4 to 1/2 in., in steps of 1/32 in., for 211739 and 236466
236485	16229	Throat Plate, 50 needle hole, for needle sizes 14 and 15 in gauges from 3/16 to 11/32 in., in steps of 1/32 in. for 236477

## FOOT LIFTER

PARTS REQUIRED FOR CHANGING FROM  
KNEE LIFTER TO FOOT LIFTER

223733	13290	Lifting Lever Extension
200082D	10886	" " " Screw
221145	16238	" " Spring
200835D	16228	" " " Stop Screw

## FOOT LIFTER

227952	15352	Lever (left or right) with 227954
227678	15352	" Chain 48 in. long with 202784
227954	16241	" " Hook (lower)
202784	16241	" " " (upper)
225016	16241	" Hinge Pin
227953	15352	" Stand with two wood screws 1 in. No. 12
227955	15352	Foot Lifter Lever (left or right) complete, Nos. 225016, 227678, 227952 and 227953

## MISCELLANEOUS PARTS

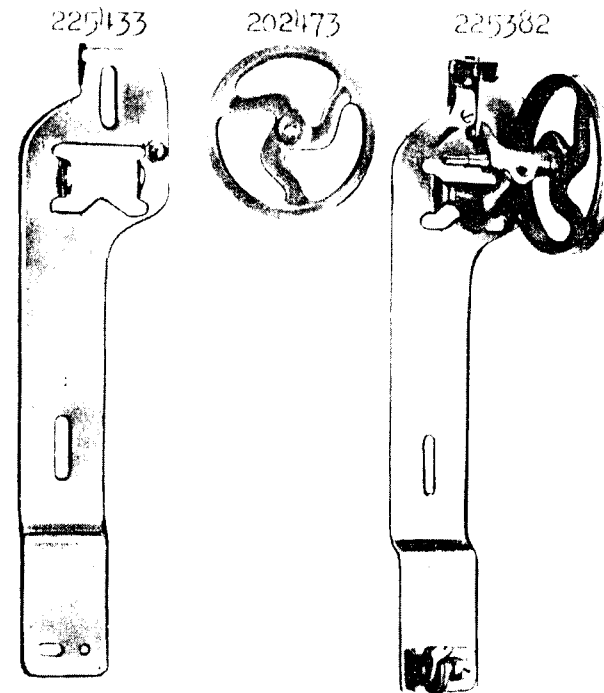
USED IN CONJUNCTION WITH THREAD UNWINDER

No.	Plate	Name
60913	15815	Spool Weight with 60914
60914	-----	" " Center Pin
225377	15815	" Wire, (for small spools)
27739	15815	Thread Cone (wood)

## OBSOLETE PARTS

223654	13267	Feed Lifting Cam Fork with 200173D and 223655
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PLATE 10885 ONE-FOURTH SIZE



Genuine Singer Needles should be used  
in Singer Machines.  
These Needles and their Containers  
are marked with the  
Company's Trade Mark "SIMANCO." 1

Needles in Containers marked  
"For Singer Machines"  
are not Singer made needles. 2

PLATE 10886 - FULL SIZE

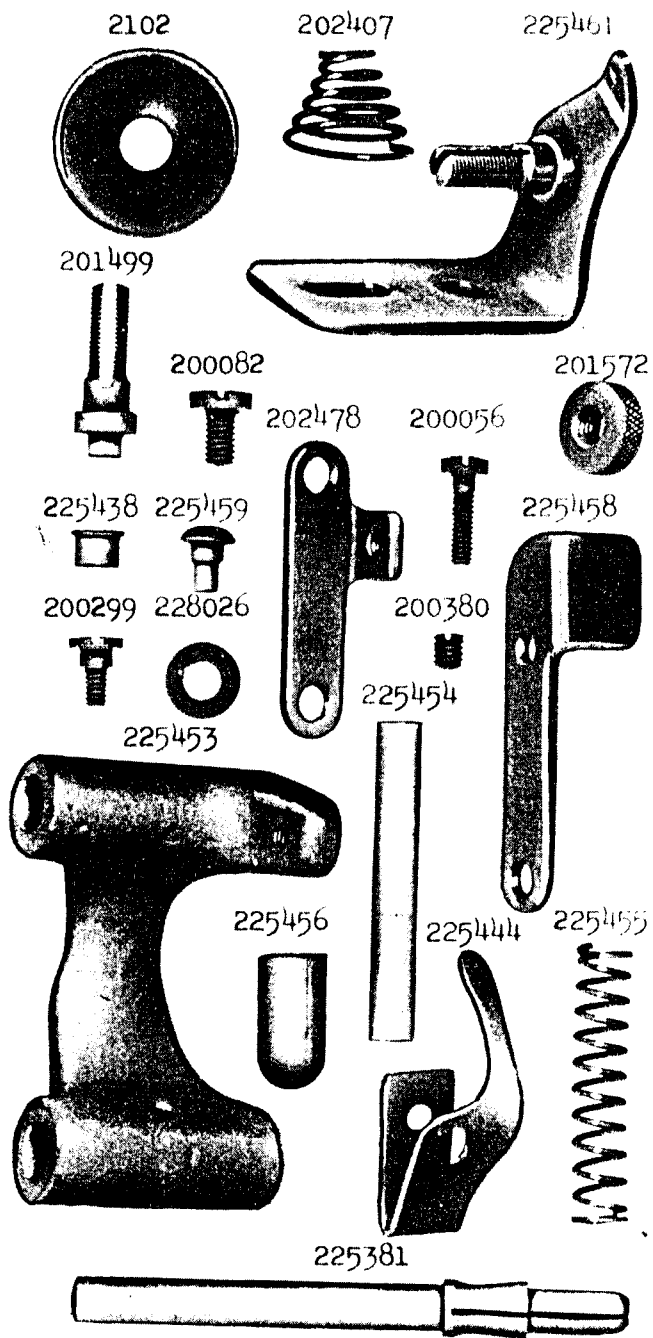


PLATE 11321 - FULL SIZE

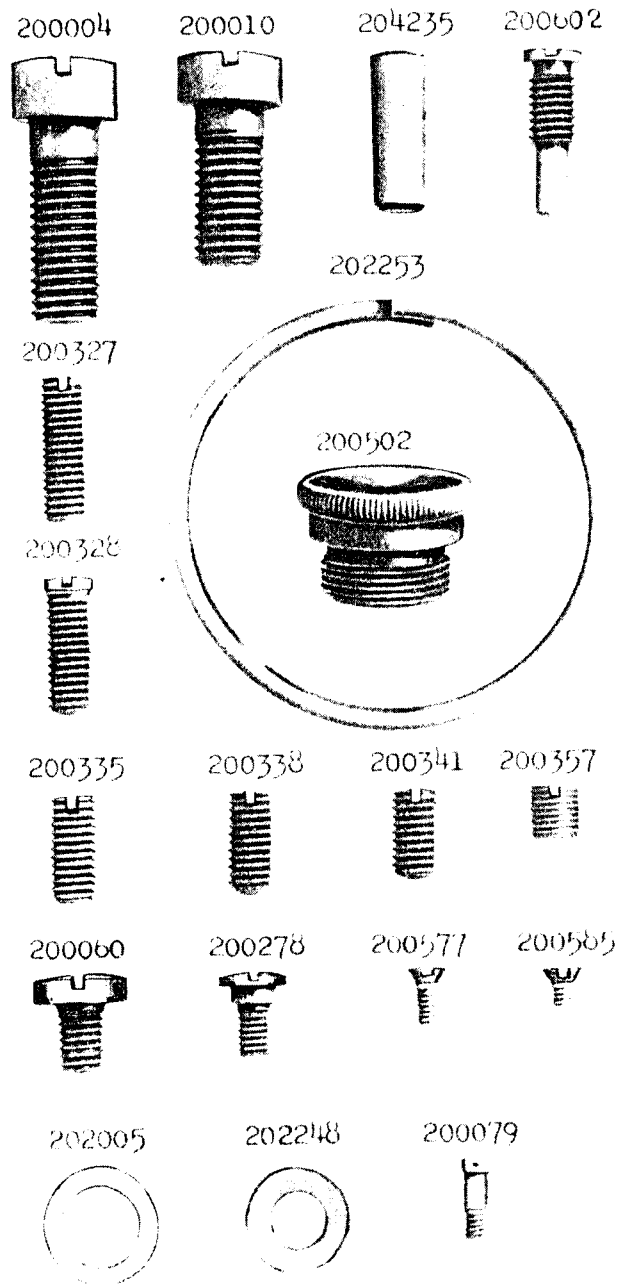
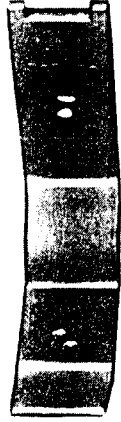




PLATE 13071 - FULL SIZE

229101



229102



229103

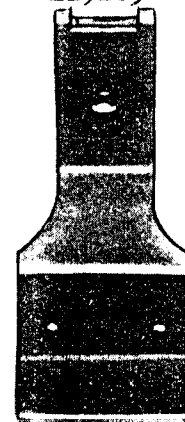


229104

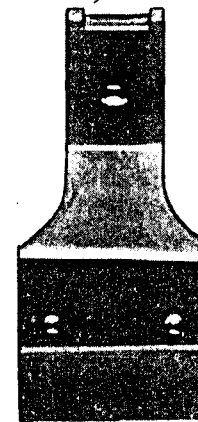


PLATE 13072 - FULL SIZE

229105



229106



229577



229572



229573



229575



229107



229578



PLATE I3079 - FULL SIZE

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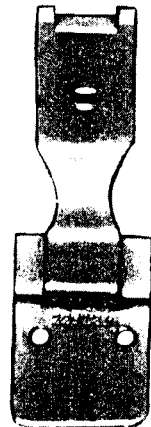
229129



229163



229135



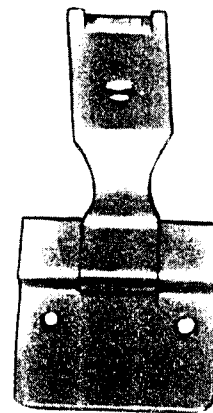
229133



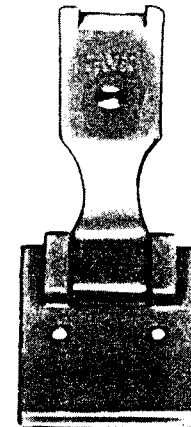
PLATE I3080 - FULL SIZE

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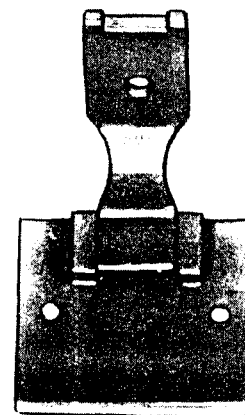
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229139



229145



229147

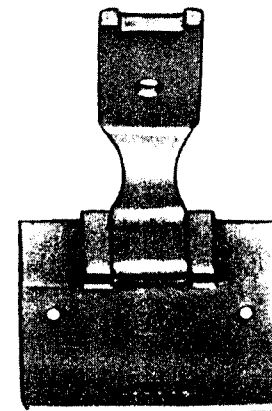
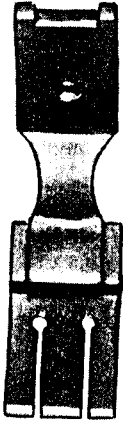
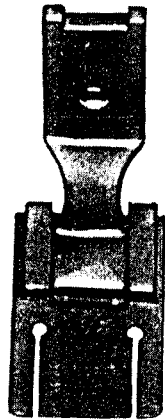


PLATE 13095 - FULL SIZE

229262



229264



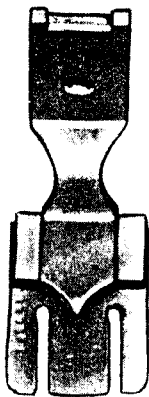
229278



229280



229282



229284

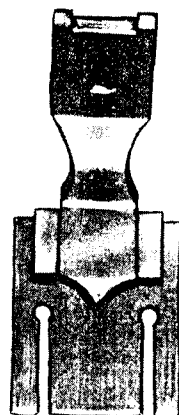
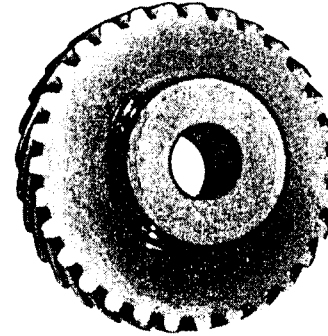


PLATE 13234 - FULL SIZE

223867



201222



200362



200378



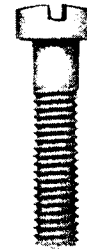
201253



201142



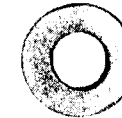
200006



210910



225585



202446



200374



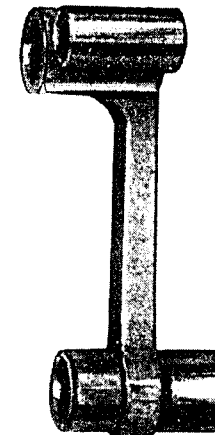
200096



202302



202552



200009



200347



244048

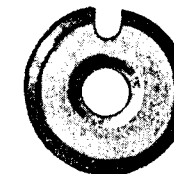
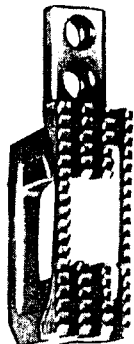


PLATE 13247 - FULL SIZE

236401



236403



236415



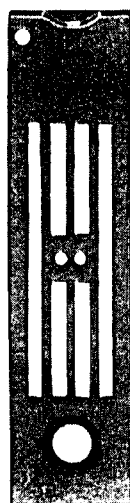
236416



236402



236404  
236405  
236406



236417  
236418  
236465

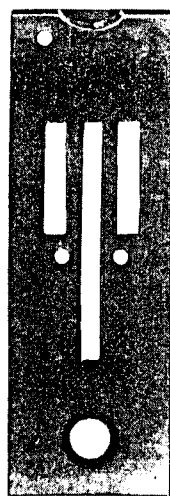
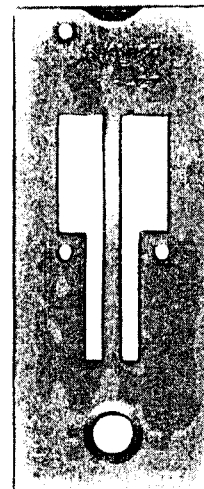


PLATE 13248 - FULL SIZE

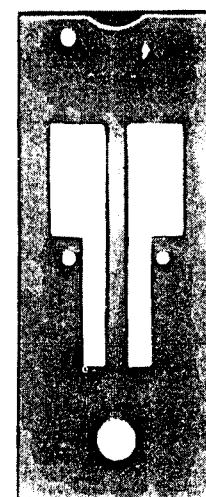
236427  
236428  
236429



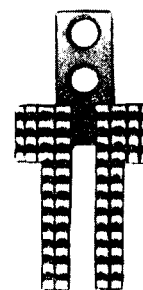
211669



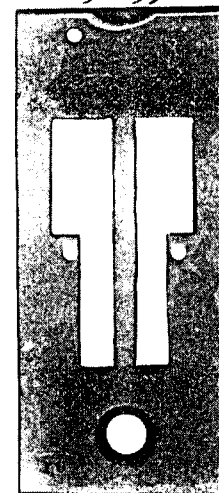
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236431  
236432



211679



236433  
236434  
236435



211674

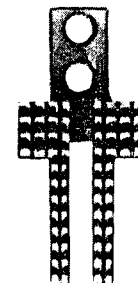
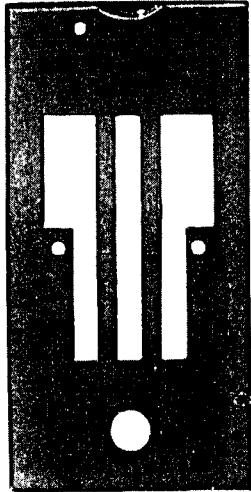
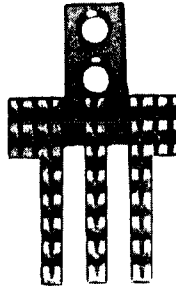


PLATE 13249 - FULL SIZE

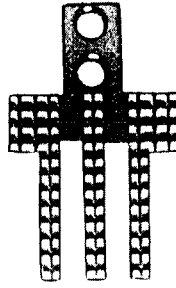
236436  
236437  
236438



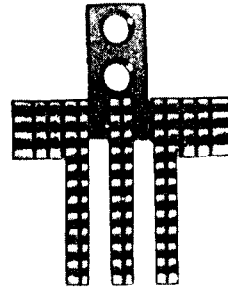
211684



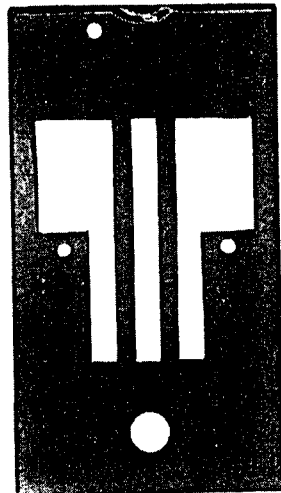
211685



236439



236441  
236442  
236443



236440

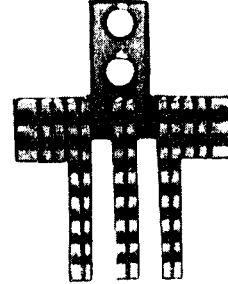
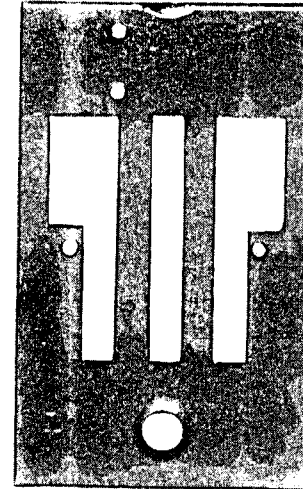
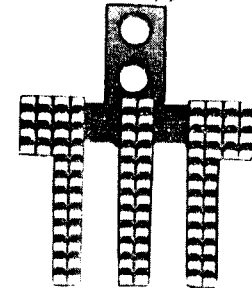


PLATE 13250 - FULL SIZE

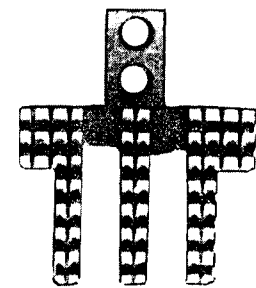
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236445  
236446



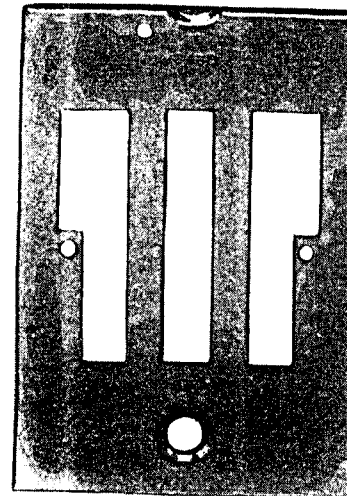
211693



211694



236450  
236451



211698

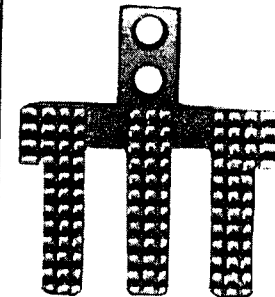
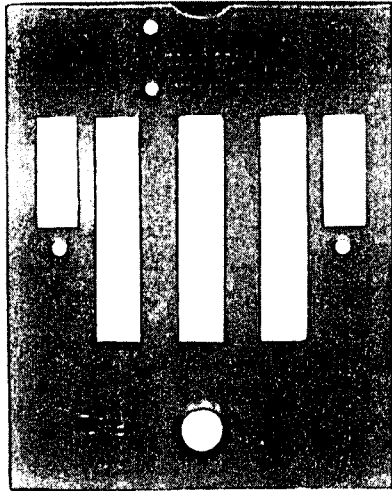
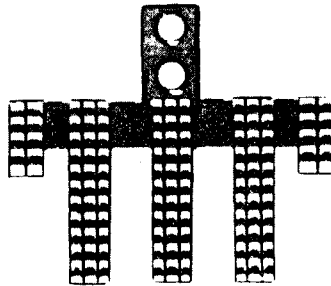


PLATE 13251 - FULL SIZE

236454  
236455



236452



236453

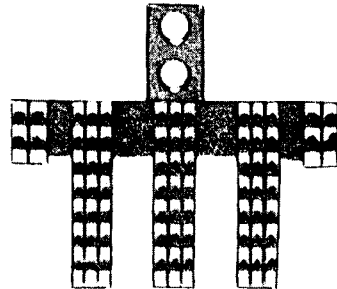
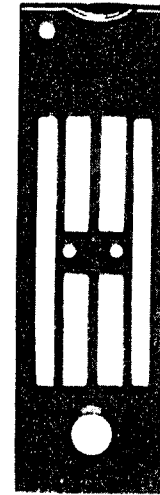


PLATE 13252 - FULL SIZE

236408  
236409  
236410



236412  
236413  
236414



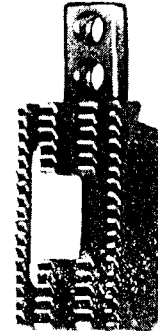
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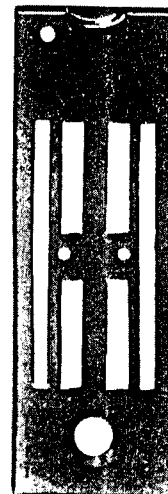
212571



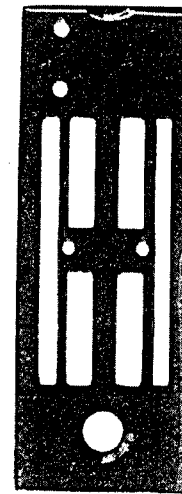
236419



236420  
236421  
236422



236424  
236425  
236426



236423

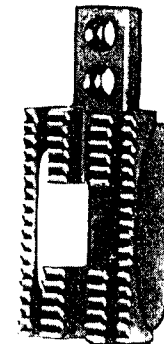
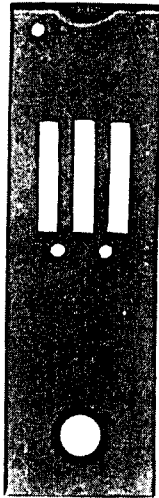
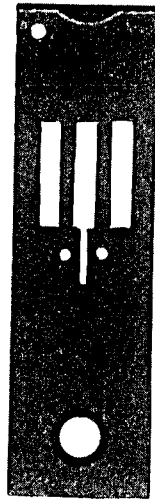


PLATE 13253 - FULL SIZE

236459  
236460  
236461



236463  
236467



236462

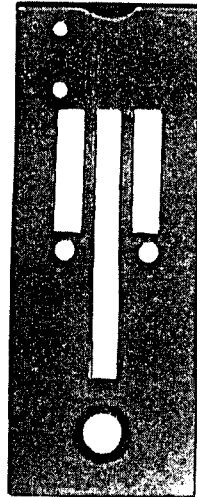
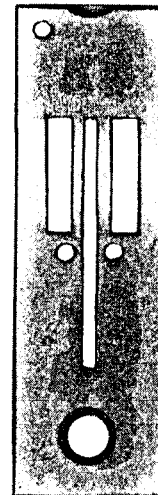
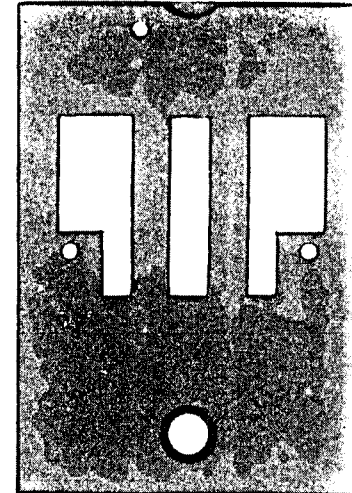


PLATE 13254 - FULL SIZE

236457



236448  
236449



236458



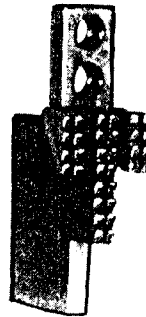
211739



236464



236466



236456



236447

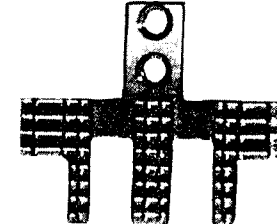


PLATE 13267 - FULL SIZE

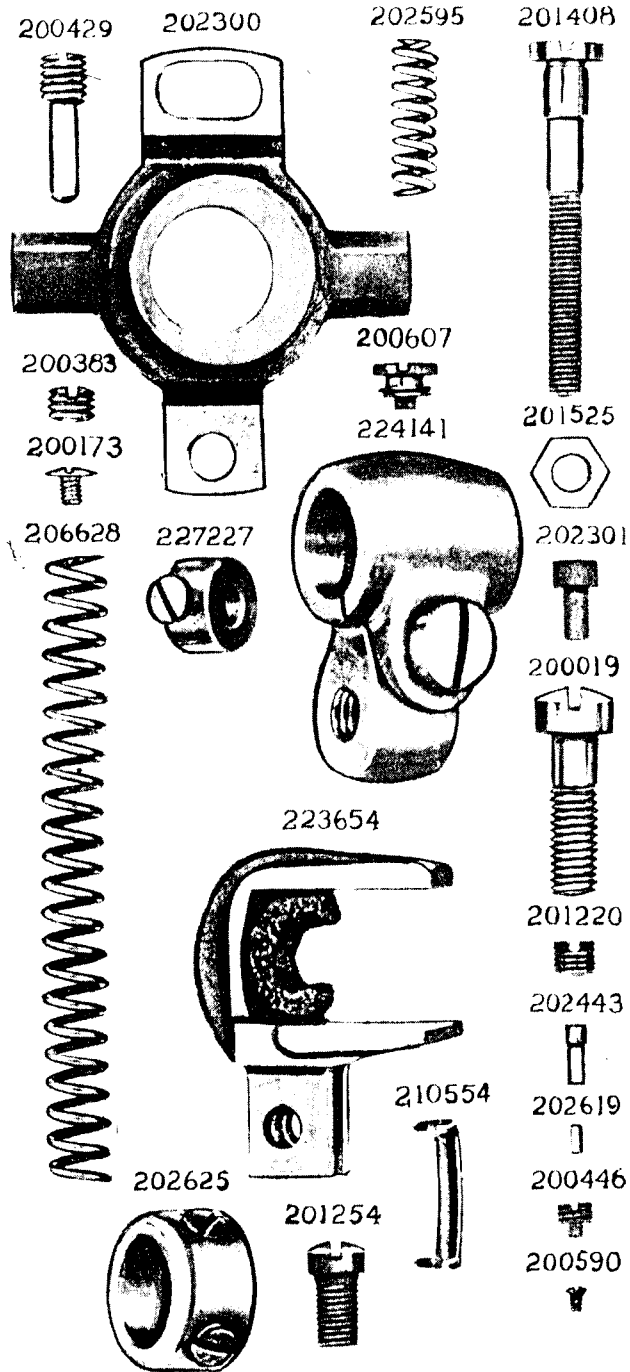


PLATE 13290 - FULL SIZE

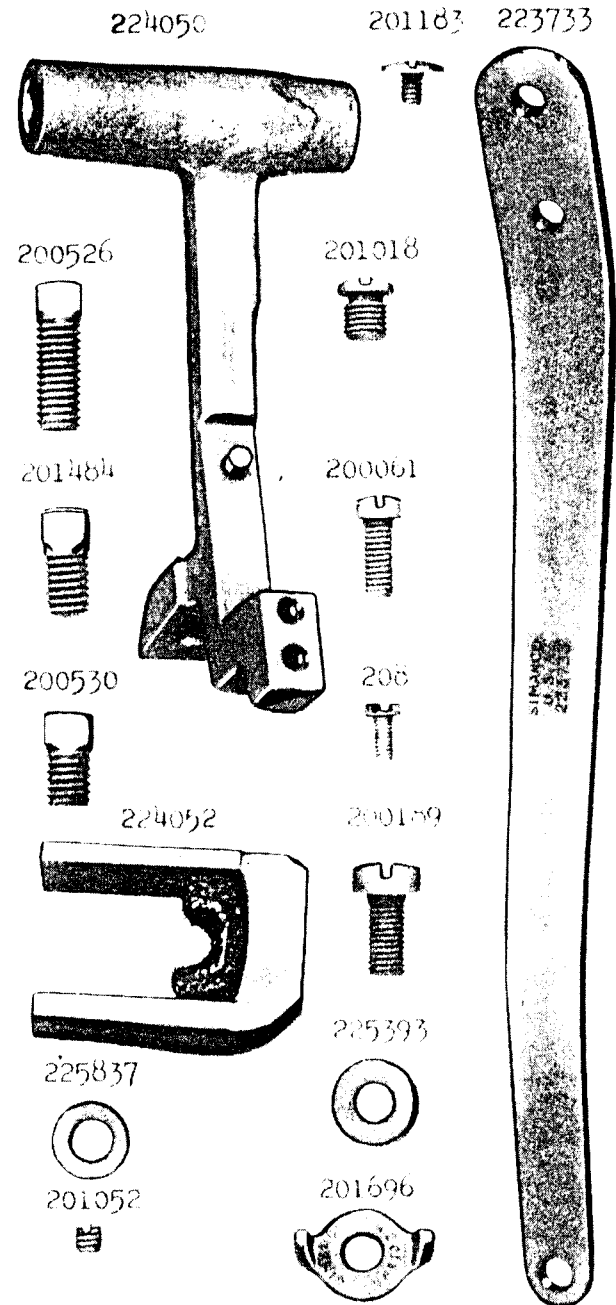
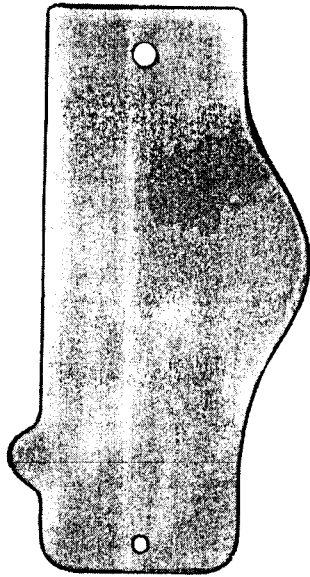


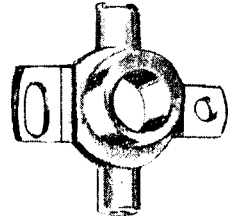


PLATE 13293 - ONE-HALF SIZE

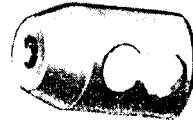
202274



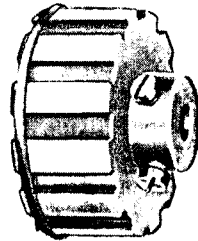
202300



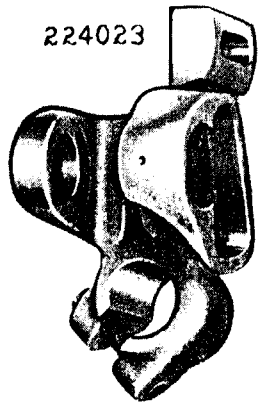
224111



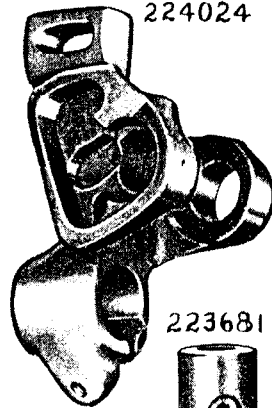
224112



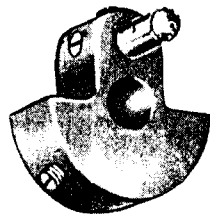
224023



224024



202692



223680



223681



PLATE 14383 - ONE-HALF SIZE

225497



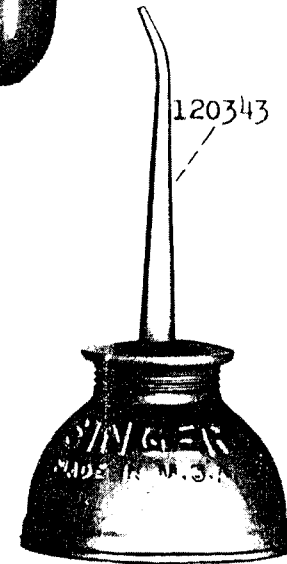
225498



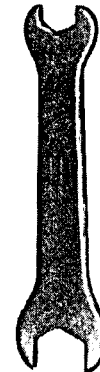
41400



120342



225554



120343

PLATE 15352 - ONE-FOURTH SIZE

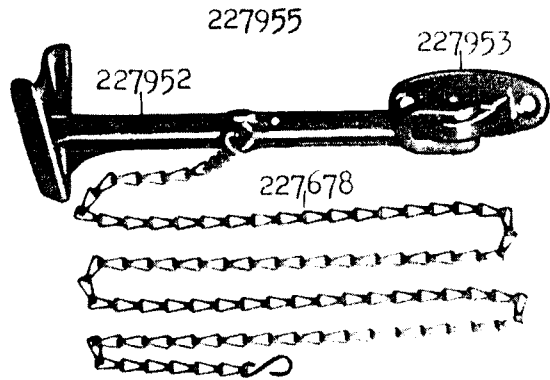


PLATE 15786 - FULL SIZE

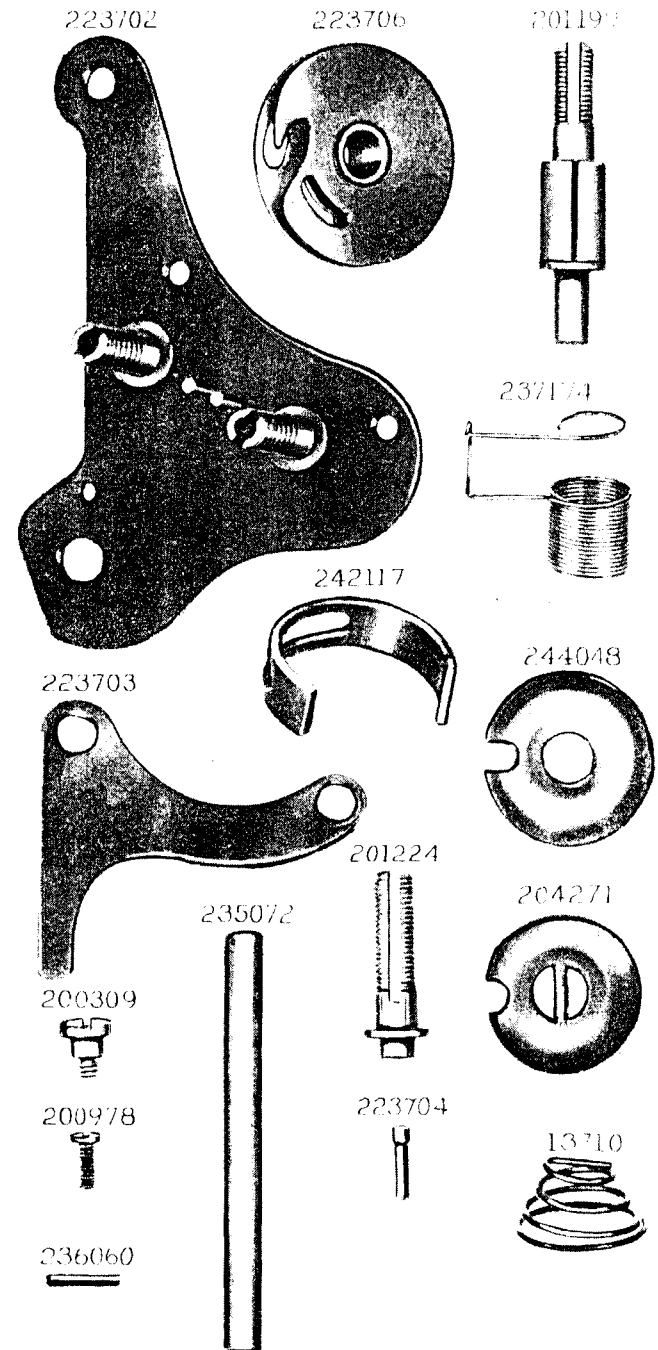


PLATE 15815—ONE-SIXTH SIZE

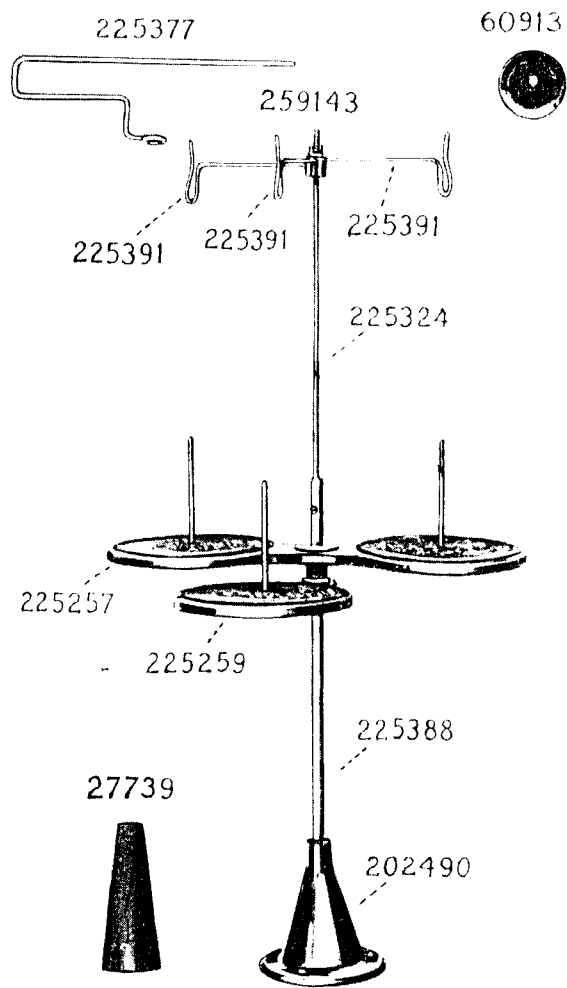


PLATE 15911—ONE-FOURTH SIZE

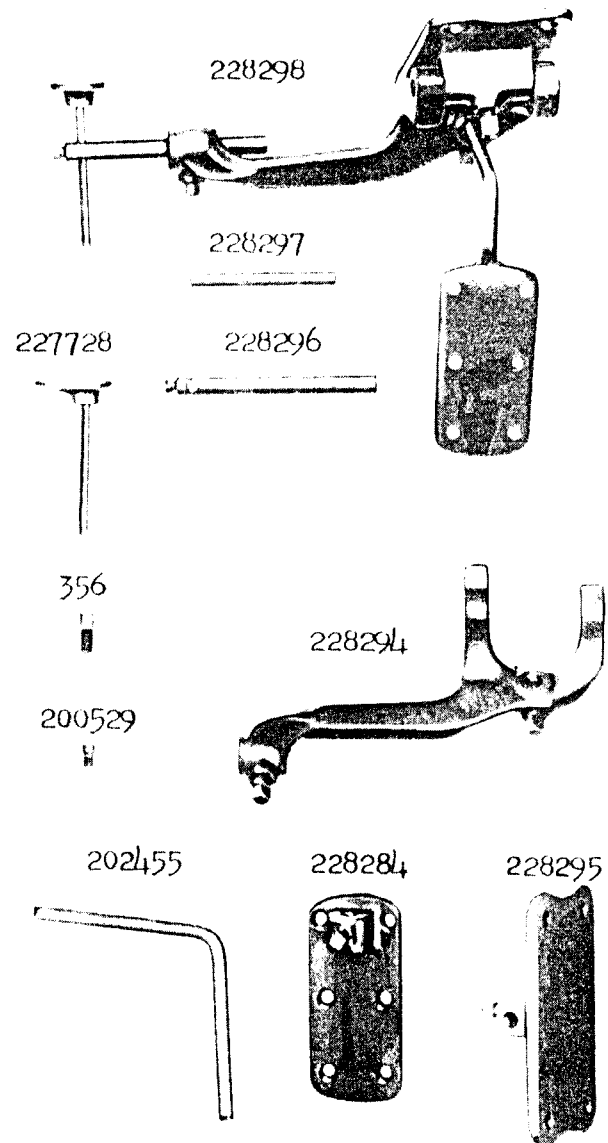


PLATE 16228 - FULL SIZE

691



200161



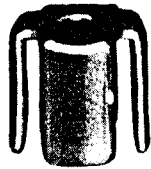
200157



201018



225326



225322



201696



200835



208



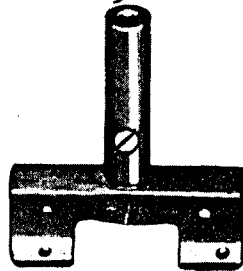
203376



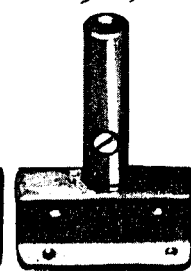
350280



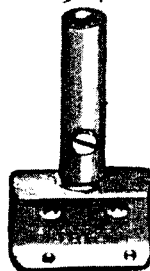
223880



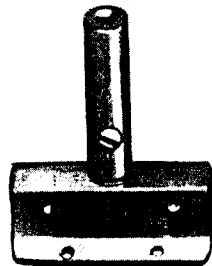
223879



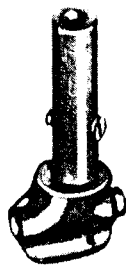
223878



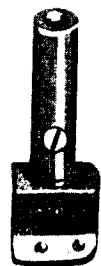
223863



236649



236648



236650

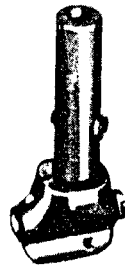


PLATE 16229 - FULL SIZE

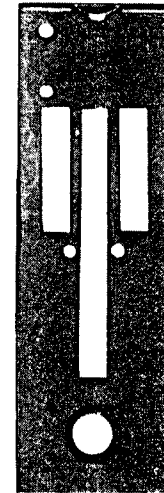
236470



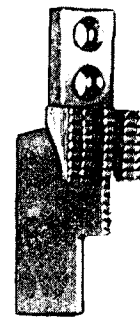
236477



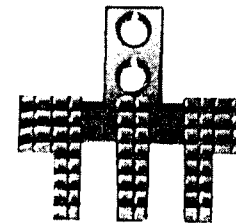
236472



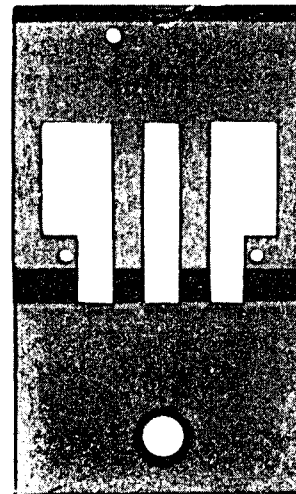
236471



236469



236468



236485

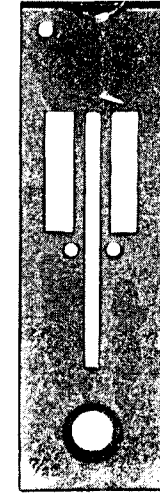


PLATE 16230 - FULL SIZE

229008



229092



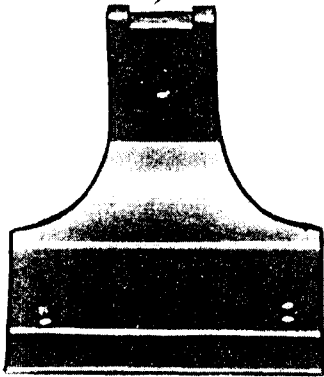
222226



229542



229604



224148



224153



229541 224149 224150 200175 202090



200172

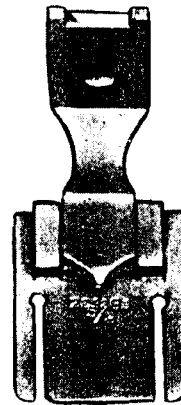


202989

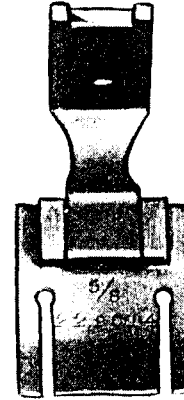


PLATE 16231 - FULL SIZE

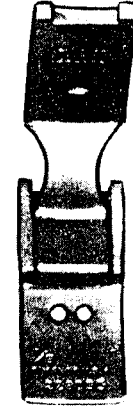
229286



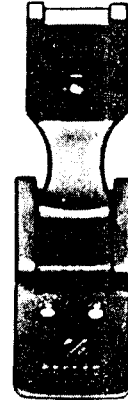
229015



229094



229096



229098



229100

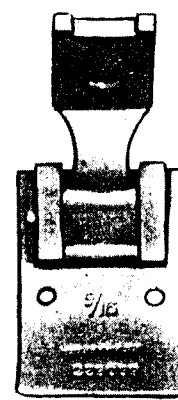
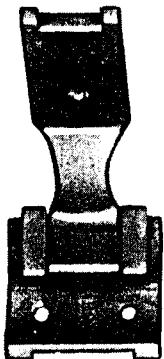


PLATE 16232 - FULL SIZE

229012



230697



230831

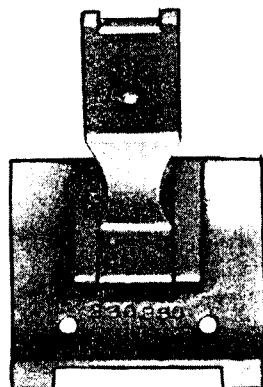


PLATE 16233 - FULL SIZE

229169



229188



229192



229194



223904



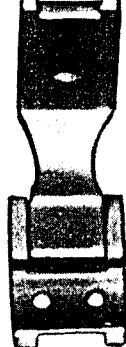
229935



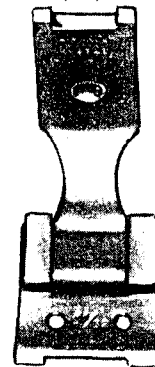
223901



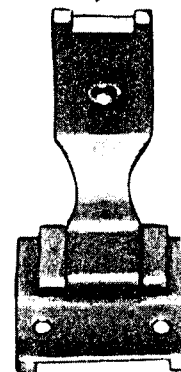
229167



229198



229202



229204

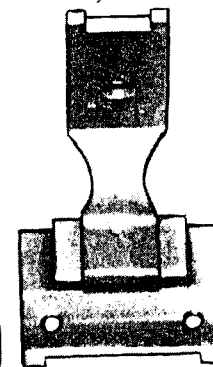


PLATE 16234 - FULL SIZE

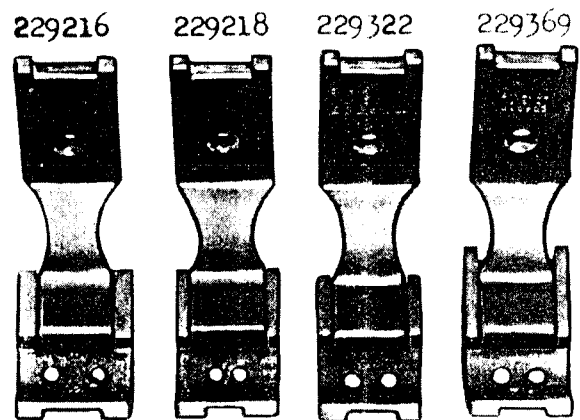


PLATE 16235 - FULL SIZE

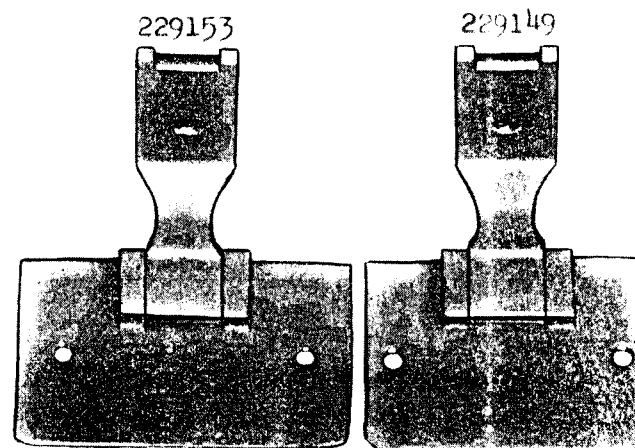
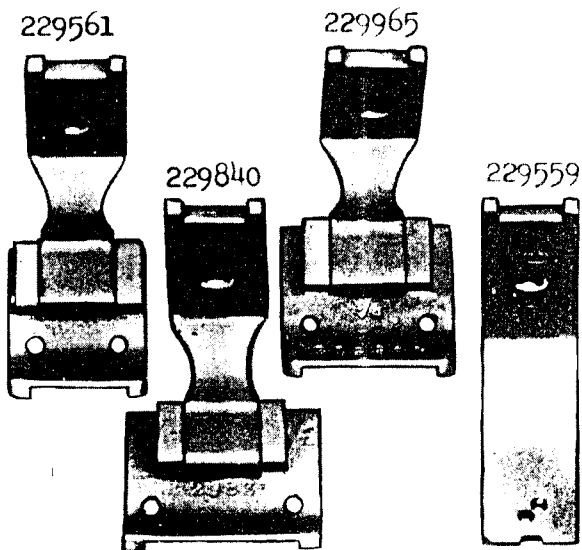
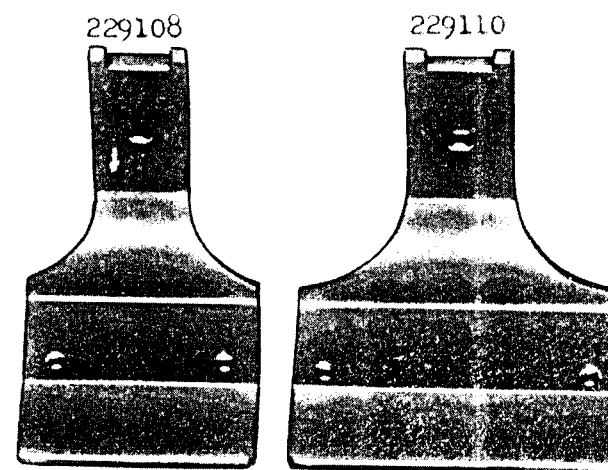


PLATE 16236 - FULL SIZE

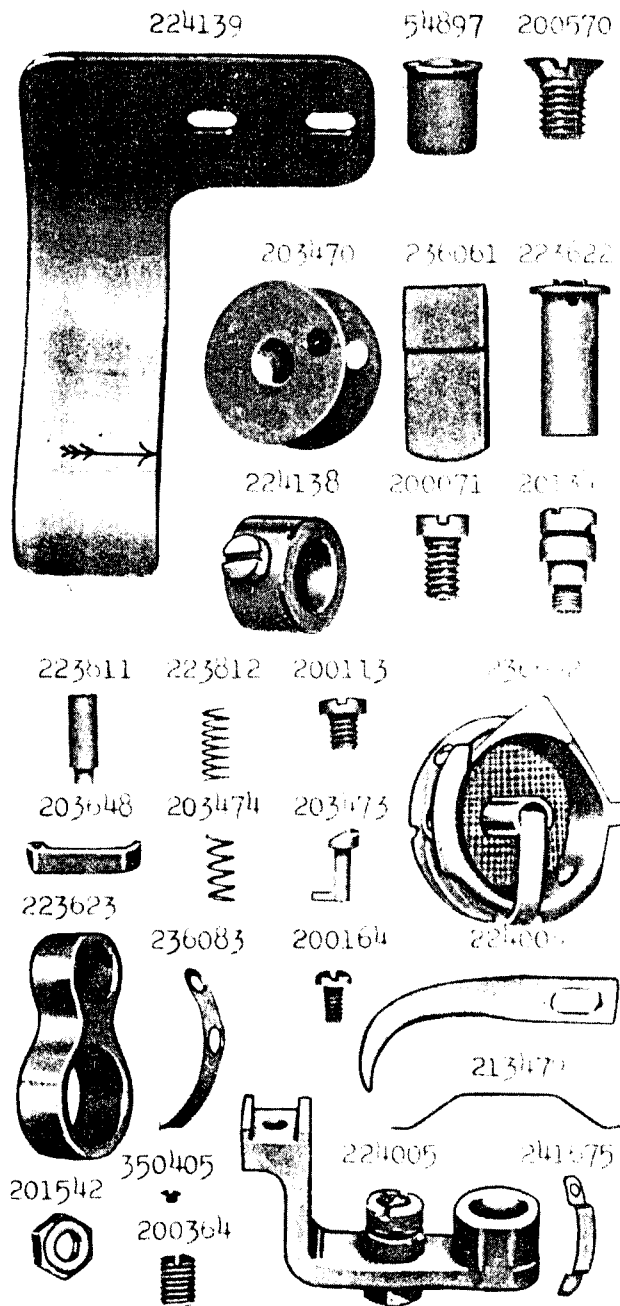


PLATE 16237 - FULL SIZE

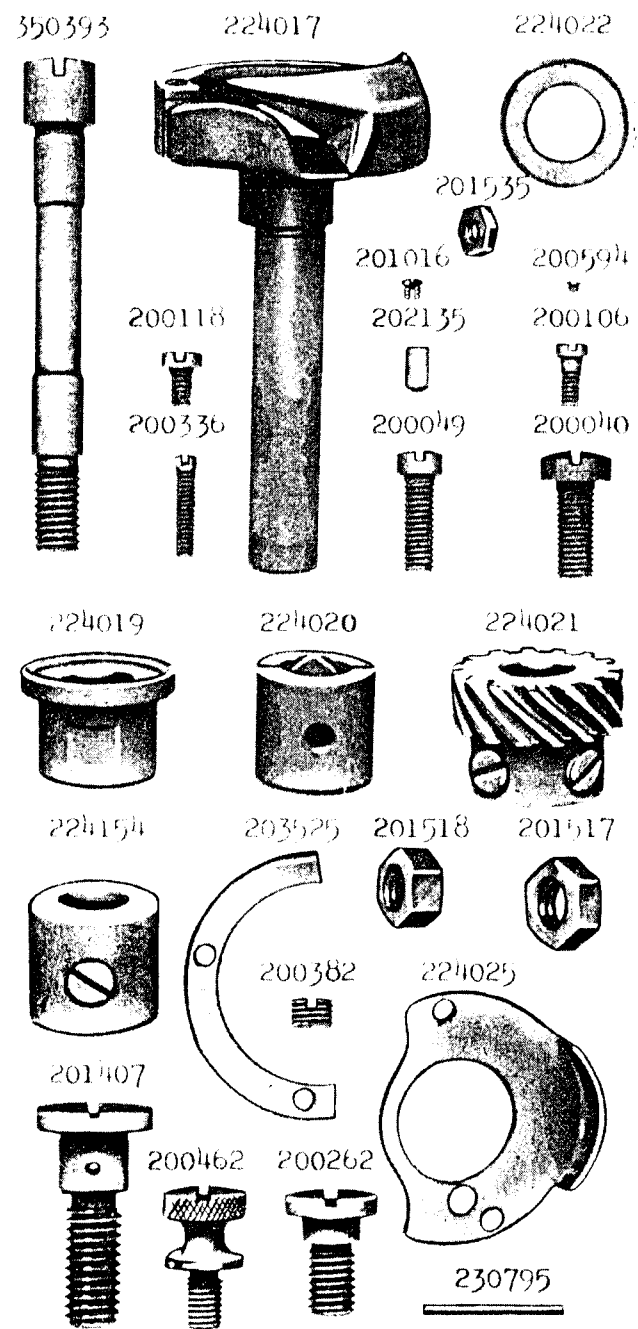




PLATE 16238 - ONE-HALF SIZE

223684 208566

224196

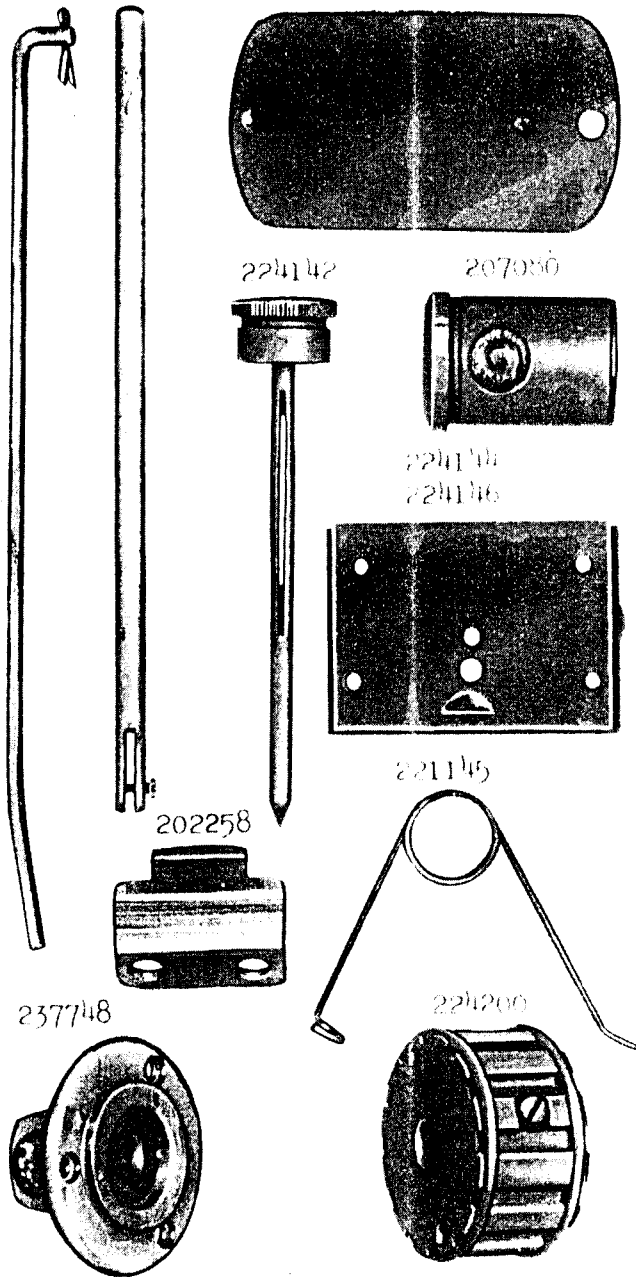


PLATE 16239 - ONE-FOURTH SIZE

224110 224137 223050 224103 224105

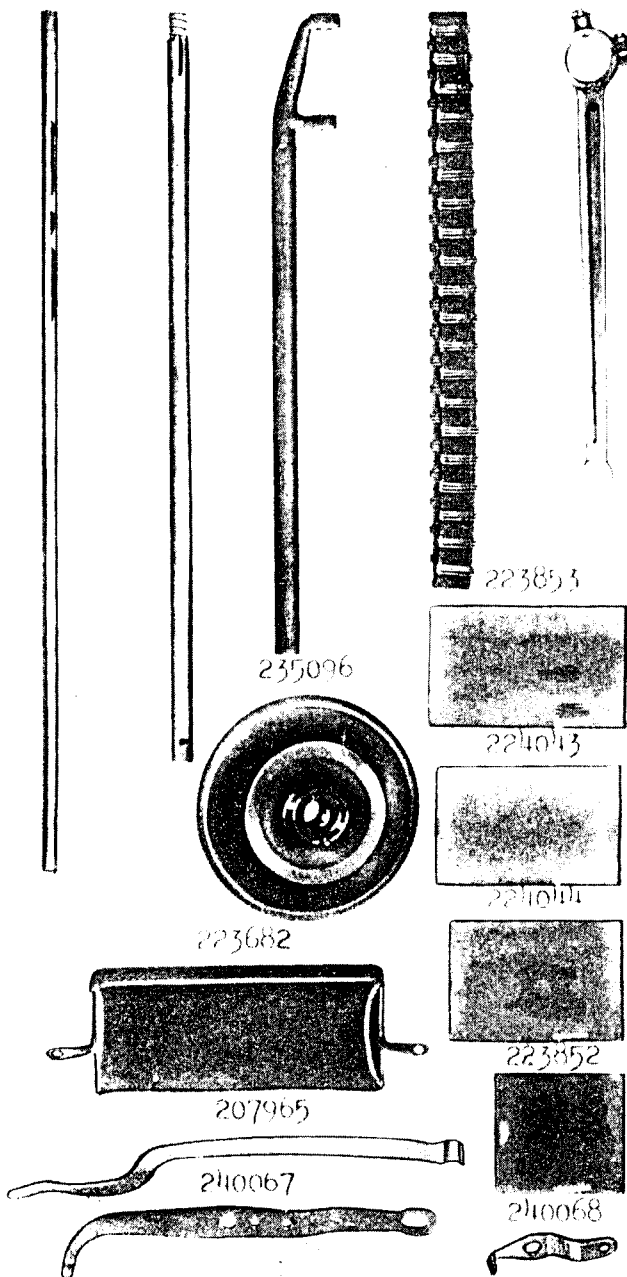


PLATE 16240 - FULL SIZE

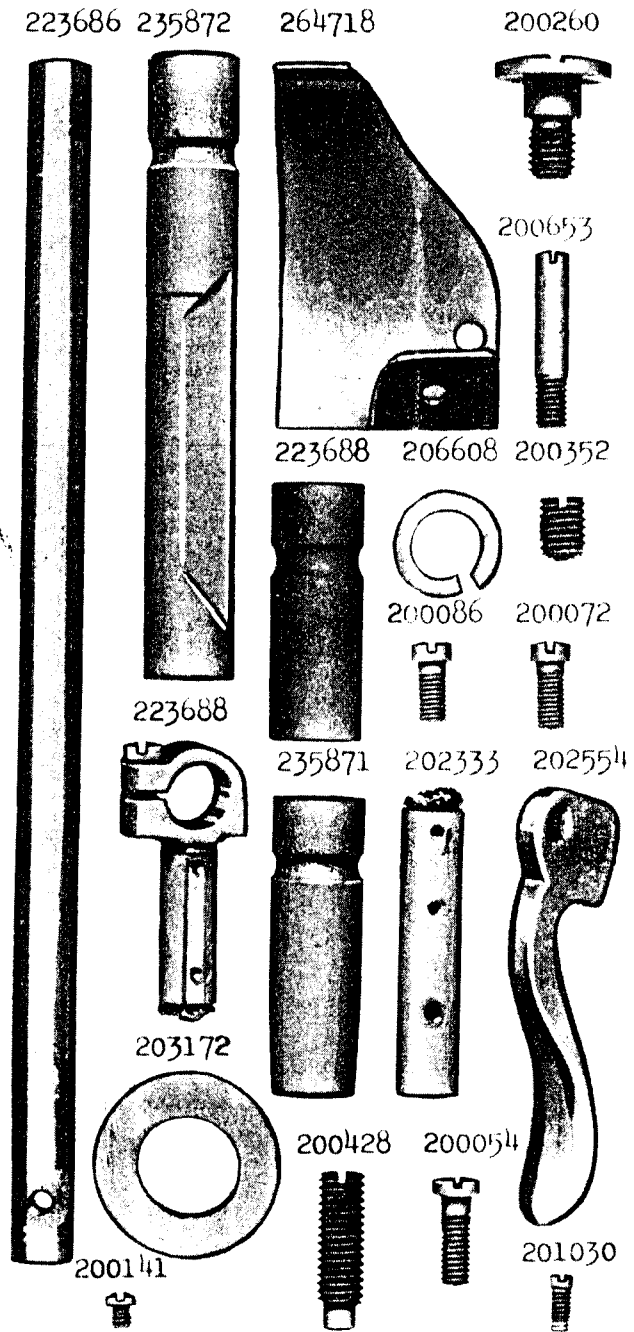


PLATE 16241 - FULL SIZE

