

SINGER

109W100

LIST OF PARTS



MACHINE No. 109w100

THE SINGER MANUFACTURING COMPANY

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Instructions for Ordering

7

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 and Plated.
- B. Polished and Plated.
- C. Hardened only.
- D. Polished only.
- E. Soft, not polished.
- F. Hardened and Polished.
- H. Blued.
- J. Nickle Plated only
- R. Merlized.
- Y. Black Nickle Plated 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 350801 to 352000 are Roller Numbers.
202001 to 350000 are Numbers of Machine Parts.

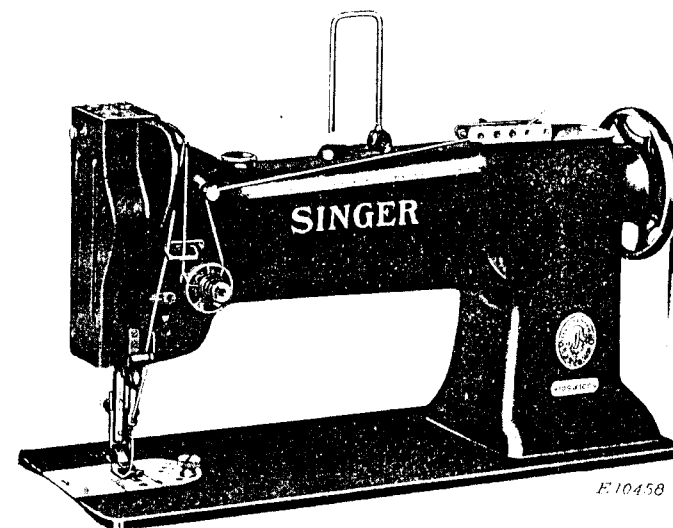
The figures in the second column refer only to the plate in which the illustration of the part is shown and are **NOT TO BE USED** in ordering.

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. 109w100

FOR TAILORING

Especially Adapted for Stitching Straight and
Bias Pieces Together, Making Them Come
Out Even at End of Seam

No.	Plate	Name
*210925	-	Arm
210990	-	" Cap and Thread Guide
210982	11601	" " " " " 210990 with 210991 and two 200179n
210991	11602	Arm Cap and Thread Guide Latch Spring
200179n	11602	Arm Cap and Thread Guide Latch Spring Screw
200278n	11602	Arm Cap Screw
202248	11602	" " " Washer
204235	11602	" Position Pin (2)
200010E	10245	" Screw (3)
202005	10245	" " Washer (3)
202633	11622	" Shaft with 200357E and 224392

Parts for Machine No. 109w100

No.	Plate	Name
202243	11601	Arm Shaft Bushing (back) with 202244
202244	—	Arm Shaft Bushing (back) Oil Packing (wick)
200338c	11602	Arm Shaft Bushing (back) Set Screw
207080	11601	Arm Shaft Bushing (front) with 202244
202244	—	Arm Shaft Bushing (front) Oil Packing (wick)
200502B	10246	Arm Shaft Bushing (front) Oil Packing Thumb Screw
200341c	11602	Arm Shaft Bushing (front) Set Screw
202634	11601	Arm Shaft Connection Belt
202635	11602	" " " " Pulley with 200327c, 200602c and two 202253
200602c	11602	Arm Shaft Connection Belt Pulley Position Screw
200327c	11602	Arm Shaft Connection Belt Pulley Set Screw
202253	11602	Arm Shaft Connection Belt Pulley Spring Flange
224392	—	Arm Shaft Oil Packing (wick)
200357E	11602	" " " " Stop Screw
202632	11601	" Side Plate
200462B	10245	" " " Thumb Screw
202255	11622	Balance Wheel (belt groove 2½ in. diam.), with 200328c and 200335c
200328c	11602	Balance Wheel Position Screw
200335c	11602	" " Set Screw
*210926	—	Bed with 210935
202258	12153	" Hinge Connection (2)
200570E	10245	" " " Screw (4)
210981	11601	" Plate (back)
200577H	10245	" " " Screw (2)
207966	11604	" Slide (front)
210530	11603	Bobbin
210912	11619	" Case Base
210729	—	" " Cap with 200592c, 201016F and 210845
210915	11621	Bobbin Case Cap complete, Nos. 200964c, 210729, 210736 and 210914
210913	11621	Bobbin Case Latch
210914	11621	" " " 210913 with 210734 and 210735

Parts for Machine No. 109w100

No.	Plate	Name
210735	11603	Bobbin Case Latch Fulcrum Pin ..
210734	11603	" " " Lever
210736	11603	" " " Spring
200964c	11603	" " " Stop Screw
210930	11603	" " Opening Lever
210922	11603	" " " " Crank with 201197c, 201542c and 203101
210932	11603	Bobbin Case Opening Lever Crank Hinge Stud with 210933
210933	—	Bobbin Case Opening Lever Crank Hinge Stud Oil Packing (wick) ..
200362c	11621	Bobbin Case Opening Lever Crank Hinge Stud Set Screw
210934	11603	Bobbin Case Opening Lever Crank Link
210935	—	Bobbin Case Opening Lever Crank Link Oil Leader (brass)
201197c	11621	Bobbin Case Opening Lever Crank Screw Stud (eccentric)
201542c	11621	Bobbin Case Opening Lever Crank Screw Stud Nut
203101	—	Bobbin Case Opening Lever Crank Screw Stud Oil Packing (wick) ..
201009c	11603	Bobbin Case Opening Lever Screw
210937	11603	" " Stop
210983	11603	" " " Position Pin (2) ..
200157B	10939	" " " Screw
210845	11603	" " Tension Spring
201016F	11603	" " " " Regulating Screw
200592c	11621	Bobbin Case Tension Spring Screw
210916	11619	Bobbin Case complete, Nos. 210912 and 210915
200459B	10939	Cloth Guide Thumb Screw
210911	11618	Face Plate
202135	11605	" " Position Pin
200473B	11605	" " Thumb Screw
207961	11601	Feed Bar
200641c	10246	" " Hinge Screw (driving) ..
201522E	10246	" " " " Nut
202276	11605	" " Slide Block
202298	10245	" " " " Crank with 200038c
203124	—	Feed Bar Slide Block Crank 202298 with 200205F, 201518c and 202276
200038c	10245	Feed Bar Slide Block Crank Pinch Screw

Parts for Machine No. 109w100

No.	Plate	Name
200205r	11605	Feed Bar Slide Block Hinge Screw
201518e	10245	" " " " " "
		Nut
210979	11611	Feed Dog, 46 needle hole, for needle sizes 16 and 18
200106e	10245	Feed Dog Screw (2)
202648	11604	" Driving Connection
203074	11605	" " " Crank with 200038c
200038c	10245	Feed Driving Connection Crank Pinch Screw
200545c	10245	Feed Driving Connection Hinge Screw
201518e	10245	Feed Driving Connection Hinge Screw Nut
202650	11605	Feed Driving Eccentric Fork with 200029c
203050	—	Feed Driving Eccentric Fork 202650 with 200833c, 201522e, 202300, 202635, 202648, 202651, two each 201014c and 201525e
200833c	11605	Feed Driving Eccentric Fork Hinge Screw
201522e	10246	Feed Driving Eccentric Fork Hinge Screw Nut
200029c	11605	Feed Driving Eccentric Fork Pinch Screw
202651	11605	Feed Driving Eccentric Fork Slide Block (bronze)
202277	—	Feed Driving Eccentric Fork Slide Block Oil Packing (wick)
202300	10246	Feed Driving Eccentric Regulating Bracket
201014c	11605	Feed Driving Eccentric Regulating Bracket Hinge Screw
201525e	10245	Feed Driving Eccentric Regulating Bracket Hinge Screw Nut
202301	10246	Feed Driving Eccentric Regulating Bracket Plunger
202595	10246	Feed Driving Eccentric Regulating Bracket Plunger Spring
200607c	10246	Feed Driving Eccentric Regulating Bracket Plunger Spring Stop Screw
201014c	11605	Feed Driving Eccentric Regulating Bracket Stop Screw
201525e	10245	Feed Driving Eccentric Regulating Bracket Stop Screw Nut

Parts for Machine No. 109w100

No.	Plate	Name
200429c	10246	Feed Driving Eccentric Regulating Screw
200383c	10246	Feed Driving Eccentric Regulating Screw Check Screw
202304	—	Feed Driving Rock Shaft
207962	—	" " " " 202304 with 200641c, 201522e and 207961
202305	10245	Feed Driving Rock Shaft Center (2)
200043c	10246	" " " " " Set Screw (2)
202653	11604	Feed Lifting Connection with 200054e and 202277
202307	10246	Feed Lifting Connection Eccentric with 200382c and 200437c
200437c	10246	Feed Lifting Connection Eccentric Position Screw
200382c	11603	Feed Lifting Connection Eccentric Set Screw
200545c	10245	Feed Lifting Connection Hinge Screw
201518e	10245	Feed Lifting Connection Hinge Screw Nut
202277	—	Feed Lifting Connection Oil Packing (wick)
200054e	10246	Feed Lifting Connection Pinch Screw
202654	11622	Feed Lifting Rock Shaft
202305	10245	" " " " Center (2)
200043c	10246	" " " " " Set Screw (2)
202310	11601	Feed Regulating Spindle with 202311, 202443 and 202619
*202311	—	Feed Regulating Spindle Head
202443	11605	" " " " Pin
202619	11605	" " " " Position Pin
		Per 100
*210940	—	Hook (sewing)
210945	11606	" 210940 with 200145c, 202064, 203101, 210941, 210942, 210944 and three 200596r
210917	—	Hook and Bobbin Case complete, Nos. 210916 and 210945

Parts for Machine No. 109w100

No.	Plate	Name
210941	11606	Hook Gib
200596F	11606	" " Screw
203101	—	" Oil Wick
*210942	—	" Shaft, 13 $\frac{3}{8}$ in. long
202321	11606	" Shaft Bushing (back)
210943	11606	" " " (front)
200346C	10245	" " " Set Screw (2) ..
202661	11602	" " Connection Belt Pulley with 202324 and two 200378C
200378C	11602	Hook Shaft Connection Belt Pulley Set Screw
202324	11602	Hook Shaft Connection Belt Pulley Spring Flange
202260	—	Hook Shaft Oil Packing (wick) (2)
202064	11606	" " Pin
210944	11606	" Washer Needle Guard
200145C	11606	" " " " Screw ..
208490	11622	Knee Lifter Connection Lever
202988	—	" " " " 208490 with 202447, 202687 and two 200262H
200262H	11623	Knee Lifter Connection Lever Hinge Screw
202447	11622	Knee Lifter Connection Lever Lift- ing Rod with 202302
202302	11621	Knee Lifter Connection Lever Lift- ing Rod Cotter Pin
202687	11622	Knee Lifter Lifting Lever
200262H	11623	" " " " Hinge Screw
202976	11604	Needle Bar (hollow) with 200141F
202552	11607	" " Connecting Link
236073	11607	" " " " Oil Guard
200161D	11607	Needle Bar Connecting Link Oil Guard Screw
202333	11607	Needle Bar Connecting Link Stud with 202254
202254	—	Needle Bar Connecting Link Stud Oil Packing (wick)
200383C	10246	Needle Bar Connecting Link Stud Set Screw
200374C	—	Needle Bar Connecting Link Stud Set Screw
*206891	—	Needle Bar Connecting Stud
202329	11607	" " " " 206891 with 200086C and 202330

Parts for Machine No. 109w100

No.	Plate	Name
202330	—	Needle Bar Connecting Stud Oil Packing (wick)
200086C	11607	Needle Bar Connecting Stud Pinch Screw
202662	11601	Needle Bar Crank with 200335C, 200374C, 200383C, 200428C and 202333
210965	—	Needle Bar Crank 202662 with 202329, 202398 to 202400 and 202552
203172	11607	Needle Bar Crank Friction Washer
200428C	11607	" " " Position Screw ..
200335C	11602	" " " Set Screw
202664	11604	" " Rock Frame
203127	—	" " " " 202664 with 202976
210910	11607	Needle Bar Rock Frame Hinge Stud with 202277
202277	—	Needle Bar Rock Frame Hinge Stud Oil Packing (wick)
200347C	—	Needle Bar Rock Frame Hinge Stud Set Screw
202666	11607	Needle Bar Rock Frame Position Bracket
200098F	11607	Needle Bar Rock Frame Position Bracket Screw
202667	11622	Needle Bar Rock Frame Rock Shaft
210978	—	Needle Bar Rock Frame Rock Shaft 202667 with 200387C and 210920
202668	11607	Needle Bar Rock Frame Slide Block
210920	11619	Needle Bar Rock Frame Slide Block 202668 with 201141C
201141C	11621	Needle Bar Rock Frame Slide Block Stud
200387C	11623	Needle Bar Rock Frame Slide Block Stud Set Screw
200141F	11607	Needle Set Screw
244033	—	Presser Bar (hollow)
202335	11604	" " 244033 with 200074F ..
207072	11607	" " Bushing (2)
200396C	11607	" " " Set Screw (2) ..
202671	11623	" " Lifter
200653C	11623	" " " Hinge Screw ...
207963	11623	" " Lifting Releasing Lever Bracket

Parts for Machine No. 109w100

No.	Plate	Name
200975F	11623	Presser Bar Lifting Releasing Lever Bracket Guide Screw
206608	11623	Presser Bar Lifting Releasing Lever Bracket Spring
202337	11621	Presser Bar Position Guide
202338	11621	" " " " Lever with 200086F
200086F	11607	Presser Bar Position Guide Lever Pinch Screw
200363C	11623	Presser Bar Position Guide Set Screw
207965	11622	Presser Bar Spring (flat)
210949	11623	" " " Bracket with 200086C
200086C	11607	Presser Bar Spring Bracket Pinch Screw
200538C	11623	Presser Bar Spring Regulating Screw
200948F	11623	Presser Bar Spring Support Screw
202090	11623	" Foot Hinge Pin
203013	—	" " Plate
215911	—	" " Shank
229882	11613	Presser Foot (hinged) complete, Nos. 202090, 203013 and 215911 ..
200074F	11623	Presser Foot Screw
226057	10939	Quilter Bracket with 200481B
200118F	10939	" " Screw
200481B	10939	" Thumb Screw
202068	12153	Spool Holder Base
200575H	11623	" " " Screw
204296	12153	" " Wire
200079H	11623	" " " Hinge Screw ..
204297	12153	Spool Holder complete, Nos. 200079H, 202068 and 204296
202398	11609	Take-up Lever
202399	11609	" " Driving Stud with 202277
202277	—	Take-up Lever Driving Stud Oil Packing (wick)
202400	11609	Take-up Lever Hinge Stud with 202423
202423	—	Take-up Lever Hinge Stud Oil Packing (wick)
200383C	10246	Take-up Lever Hinge Stud Set Screw
202401	—	Take-up Lever Oiling Felt
200132E	11609	" " " " Screw ..

Parts for Machine No. 109w100

No.	Plate	Name
244048	11610	Tension Disc (back)
207967	11610	" " (front)
210950	11609	" Release Driving Lever with 200394C and 202676
202676	11609	Tension Release Driving Lever Pin
202677	11609	" " " " " Slide Bar
210966	—	Tension Release Driving Lever Pin Slide Bar 202677 with 200167E and 210952
202678	11609	Tension Release Driving Lever Pin Slide Bar Spring
200394C	11609	Tension Release Driving Lever Set Screw
210951	11610	Tension Release Washer
202407	10881	" Spring
200625F	11610	" Stud with 204925
200061C	11623	" " Set Screw
204925	11610	" " Washer
201572B	10881	" Thumb Nut
210953	11610	Tension complete, Nos. 200625F, 201572B, 202407, 202682, 207967, 210951 and 244048
202682	11610	Thread Controller Spring
210952	11610	" " " Stop
200167E	11610	" " " " Screw
210954	11610	" Guide (lower)
210955	11610	" " (upper)
200582H	11610	" " Screw (3)
210956	11610	" Retainer Bracket with 200397H ..
200582H	11610	" " " Screw (2) ..
210960	11610	" " Disc
210961	11610	" " Plunger
210962	11610	" " " Spring
210993	11610	" " Sleeve
210963	11610	" " Socket
200389C	11610	" " " Set Screw
223844	11621	" " Spring
210957	11610	" " Stud
210958	11610	" " Collar
200397H	11610	" " " Set Screw
210959	11610	Thread Retainer (lower) complete, Nos. 210956 to 210958, 210993 and 223844
210980	11611	Throat Plate
200577H	10245	" " Screw (2)

ACCESSORIES

No.	Plate	Name
200157B	10939	Attachment Screw
210530	11603	Bobbin (5)
*225482	—	" Case Screw Driver Blade ...
*225483	—	" " " " Handle ...
225497	12153	Bobbin Case Screw Driver complete, Nos. 225482 and 225483 ...
231337	10939	Cloth Guide
135 x 5	—	Needles, three each, sizes 16 and 18
226056	10939	Quilter
228213	—	Drip Pan (long) with four 1 in. wire nails
41400	12153	Machine Rest Pin (wood)
120342	12153	Oiler 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)
		Wood Screws, 1 in., No. 13, R.H. (2)

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	11623	" Set Screw
225381	10884	Spindle
225444	10884	Stop Latch
200056c	10884	" " Screw
225458	10884	" " Thumb Lever
225459	10884	" " " " Hinge Stud
225459	10884	" " " " Joint Stud
202478	10884	" " Trip Lever
200299H	10884	" " " " Hinge Screw

Accessories

No.	Plate	Name
225461	10881	Tension Bracket with 201499B
200082D	10881	" " Screw
228026	10884	" " " 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. 200056c, 200082D, 200299H, 202473, 202478, 225381, 225433, 225444, 225453 to 225456, 225458, 225462, 228026, two each 225459 and wood screws ¾ in., No. 12, R.H.B.

KNEE LIFTER

2763	13395	Rock Shaft
228278	13395	" " Hanger (back) with 356c
228279	—	" " " 228278 with 202452 and 228282
228280	13395	Rock Shaft Hanger (front) with two 356c
228281	—	Rock Shaft Hanger 228280 with 202452 and 228282
228282	13395	Rock Shaft Hanger Bracket with two wood screws ¾ in., No. 12 ..
202452	10939	Rock Shaft Hanger Hinge Pin
202455	13395	" " Knee Arm
356c	11623	" " " " Set Screw ..
228284	13395	" " " Plate with 356c ..
356c	11623	" " " " Set Screw ..
228283	13395	" " Lifting Lever with two 356c
227728	13395	Rock Shaft Lifting Lever Rod with 227729
227729	—	Rock Shaft Lifting Lever Rod Cap
356c	11623	" " " " " Set Screw
356c	11623	Rock Shaft Lifting Lever Set Screw
356c	11623	" " Set Screw

Accessories

No.	Plate	Name
228285	13395	Knee Lifter Rock Shaft complete, Nos. 2763, 202455, 227728, 228279, 228281, 228283 and 228284

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

FEED DOGS

No.	Plate	Name
210901	11611	Feed Dog, 50 needle hole, for needle sizes 14 and 15, for close gauge work, for 210985
210908	11617	Feed Dog, 46 needle hole, for needle sizes 16 and 18, for 210907 and 210909
210939	11611	Feed Dog, 46 needle hole, for needle sizes 16 and 18, for close gauge work, for 210985
210902	11611	Feed Dog, 46 needle hole, for needle sizes 16 and 18, for binding up to $\frac{1}{2}$ in., for 210984
210986	11612	Feed Dog, 46 needle hole, for needle sizes 16 and 18, for binding $\frac{13}{16}$ in. or wider, for 210987
210903	11611	Feed Dog, 50 needle hole, for needle sizes 14 and 15, for shirts, etc., for 210905
210904	11611	Feed Dog, 46 needle hole, for needle sizes 16 and 18, for overalls and tailoring, for 210905
210979	11611	Feed Dog, 46 needle hole, for needle sizes 16 and 18, for tailoring, for 210980

FOOT LIFTER

Parts for Changing Machine from Knee

Lifter to Foot Lifter

210923	11618	Foot Lifter Lifting Lever
223733	11621	" " " Lever Extension
200082b	10881	" " " " "
		Screw (2)
227561	11621	Foot Lifter Lifting Lever Spring
201355c	11621	" " " " "
		Stop Screw

PRESSER FEET

No.	Plate	Name
202090	11623	Presser Foot Hinge Pin
206998	11613	" " Holder with 200543u.
200543u	11613	" " " Screw
203013	-----	" " Plate
210988	-----	" " "
*202943	-----	" " "
215911	-----	" " Shank
*202942	-----	" " "
202944	11613	Presser Foot (hinged) complete, Nos. 202090, 202942 and 202943 ..
210989	11613	Presser Foot (hinged) complete, Nos. 202090, 210988 and 215911 ..
229882	11613	Presser Foot (hinged) complete, Nos. 202090, 203013 and 215911 ..

THROAT PLATES

No.	Plate	Name
210905	11611	Throat Plate, for 210903 and 210904
210909	11617	" " " 210907 and 210908
210980	11611	" " " 210979
210984	11611	" " " 210902
210985	11611	" " " 210901 and 210939
210987	11612	" " " 210986

GUIDE

(ADJUSTABLE, HINGED)

For Tailoring Work and Close Edge Stitching on
Coats, Vests, Overcoats, etc.

No.	Plate	Name
28971	11617	Guide
28972	11617	" Holder
35610	11621	" " Friction Washer
940D	11623	" " Hinge Screw
210906	11617	" " Shank
286D	11623	" Thumb Screw
7071	11623	" " Washer
210907	11617	Guide (adjustable, hinged) complete, Nos. 286D, 940D, 7071, 28971, 28972, 35610 and 210906
210908	11617	Feed Dog, 46 needle hole, for needle sizes 16 and 18
210989	11613	Presser Foot (hinged) complete, Nos. 202090, 210988 and 215911 ..
210909	11617	Throat Plate

FOLDER

For Fly Work on Overalls and Work Pants

210918	11620	Double Edge Folder on Shank
210919	11619	Presser Foot, 50 needle hole
210921	11620	Double Edge Folder on Shank
286D	11623	" " " Thumb Screw
35610	11621	" " " " " Washer

OBSOLETE PARTS

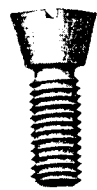
No.	Plate	Name
210929	11603	Bobbin Case Base
210730	11603	Bobbin Case Cap complete, Nos. 200964E, 210729, 210736 and 210778
210733	11603	Bobbin Case Latch
210778	-----	" " " 210733 with 210734 and 210735
202646	11604	Face Plate
200533B	11605	" " Thumb Screw

PLATE 10245—FULL SIZE

200010



200545



200462



200570



200577



202135



202305



202276



200205



200038



200139



200196



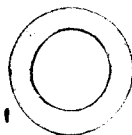
201518



201014



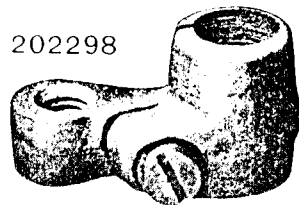
202005



201525



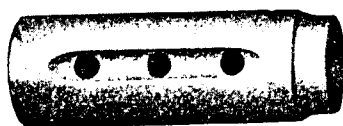
202298



202321



202322

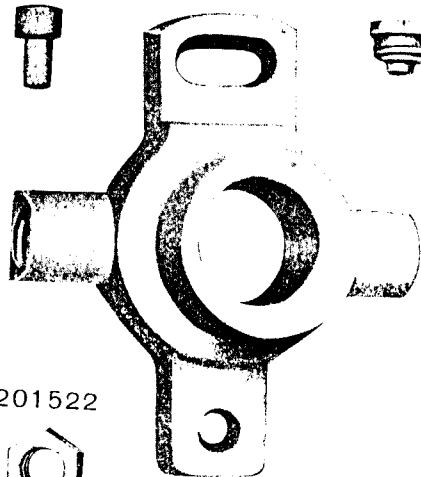


200346



PLATE 10246—FULL SIZE

200641 202301 202300 200607



201522



202595



200429



200054



202446



200043



200437



200383



202307

200502

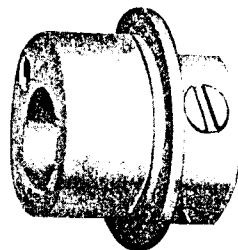
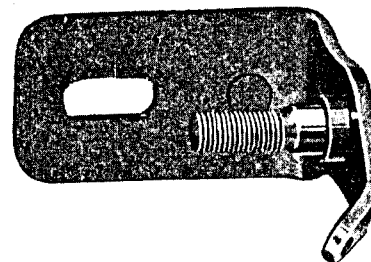


PLATE 10881—FULL SIZE

225461



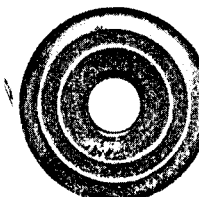
200082



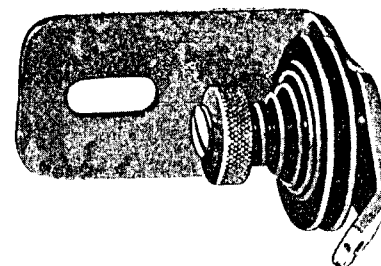
202104



2102



225462



202407



201499



201572



PLATE 10884—FULL SIZE

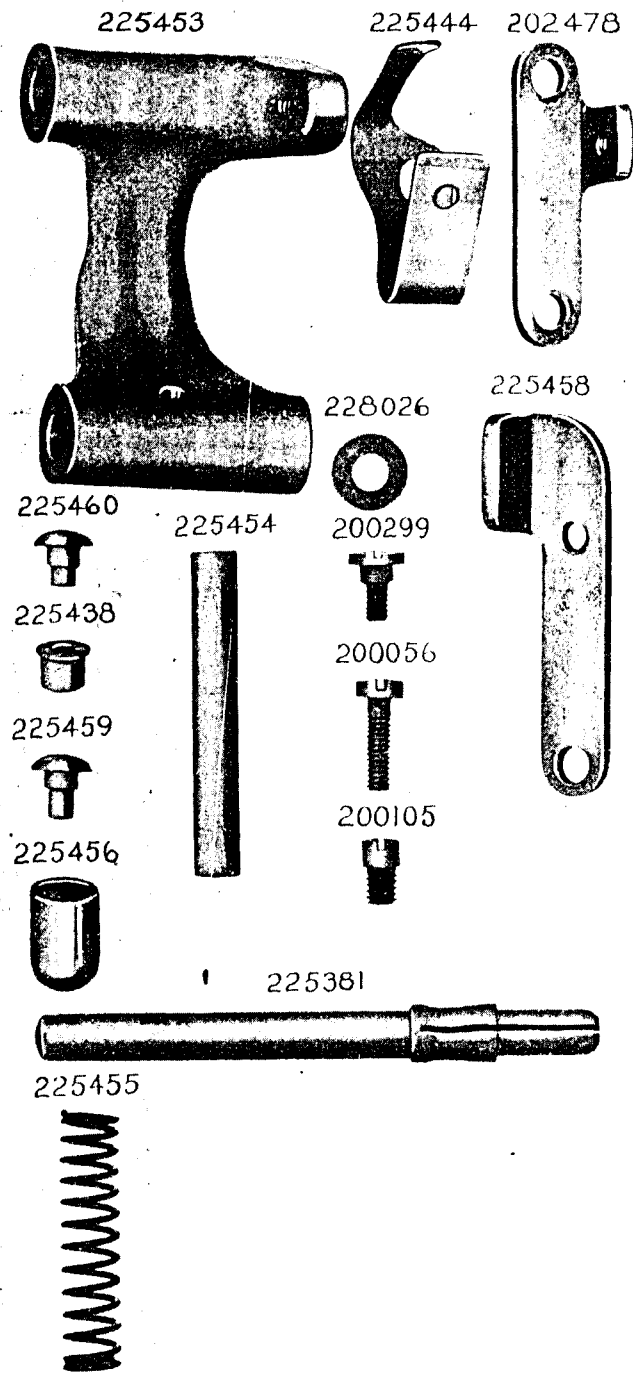


PLATE 10885—ONE-FOURTH SIZE

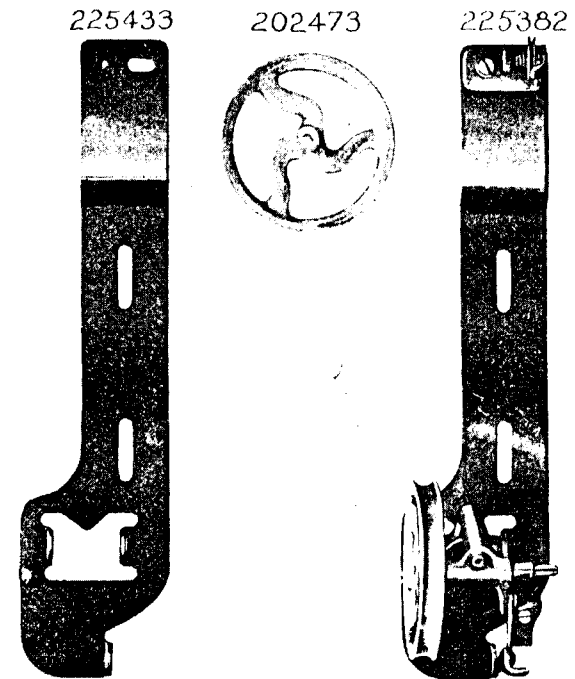


PLATE 10939—FULL SIZE

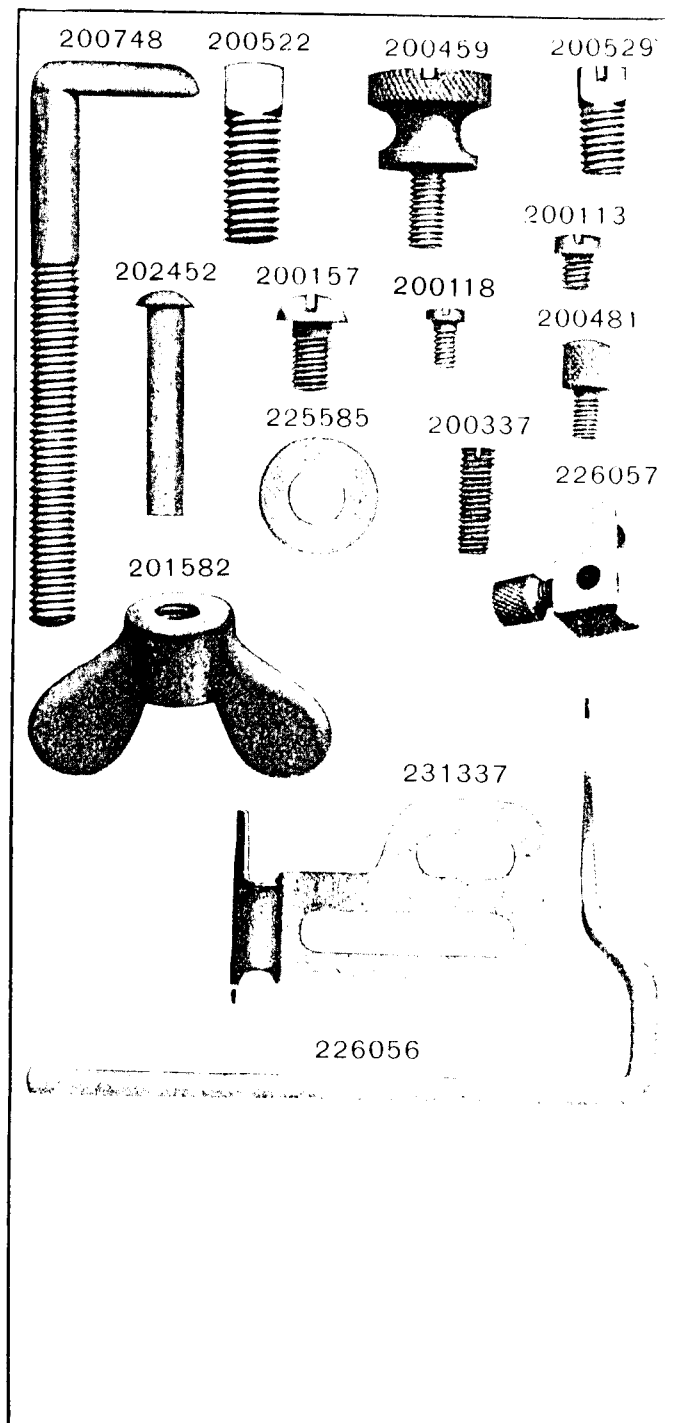


PLATE 11601—ONE-HALF SIZE

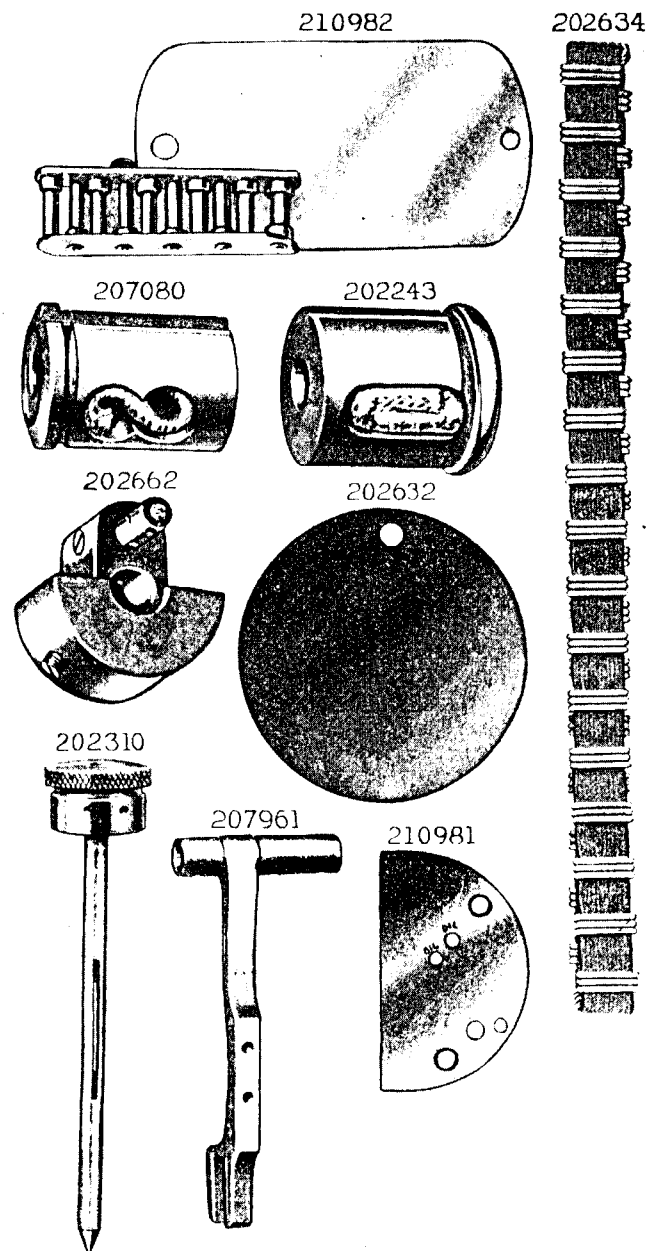


PLATE 11602 -FULL SIZE

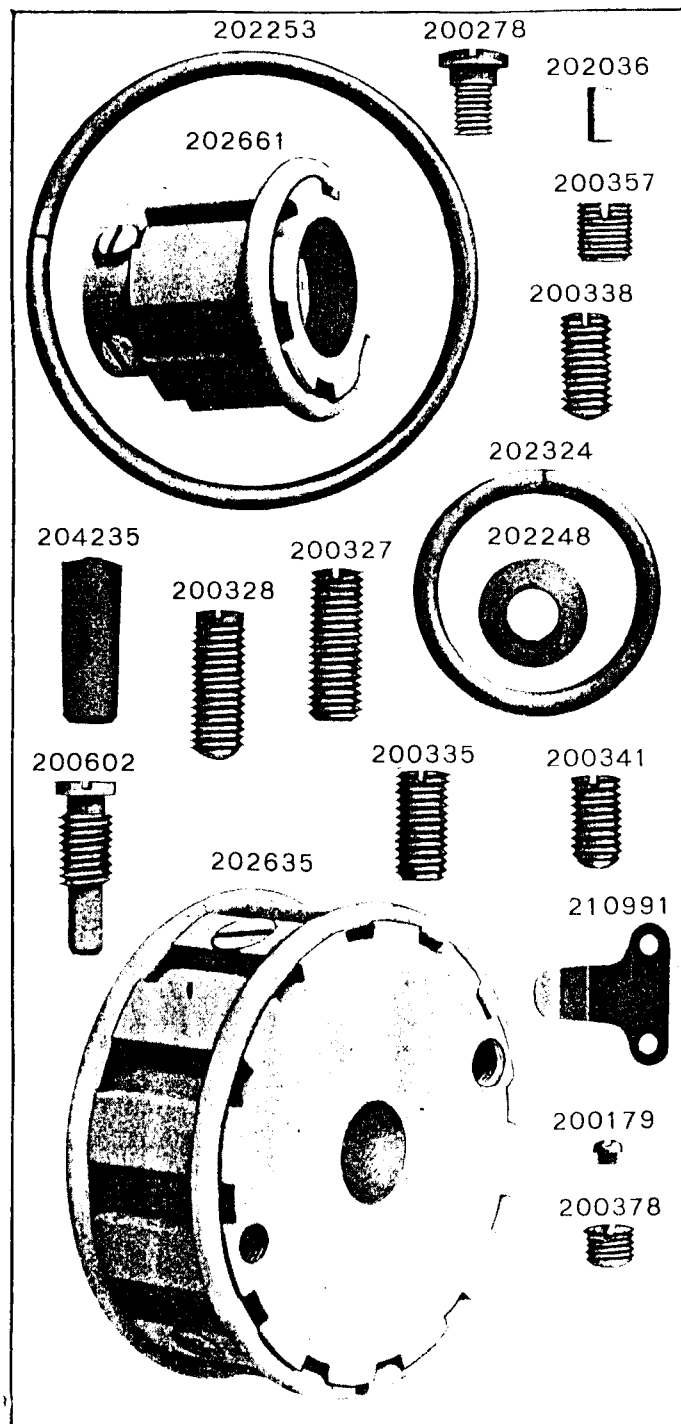


PLATE 11603 -FULL SIZE

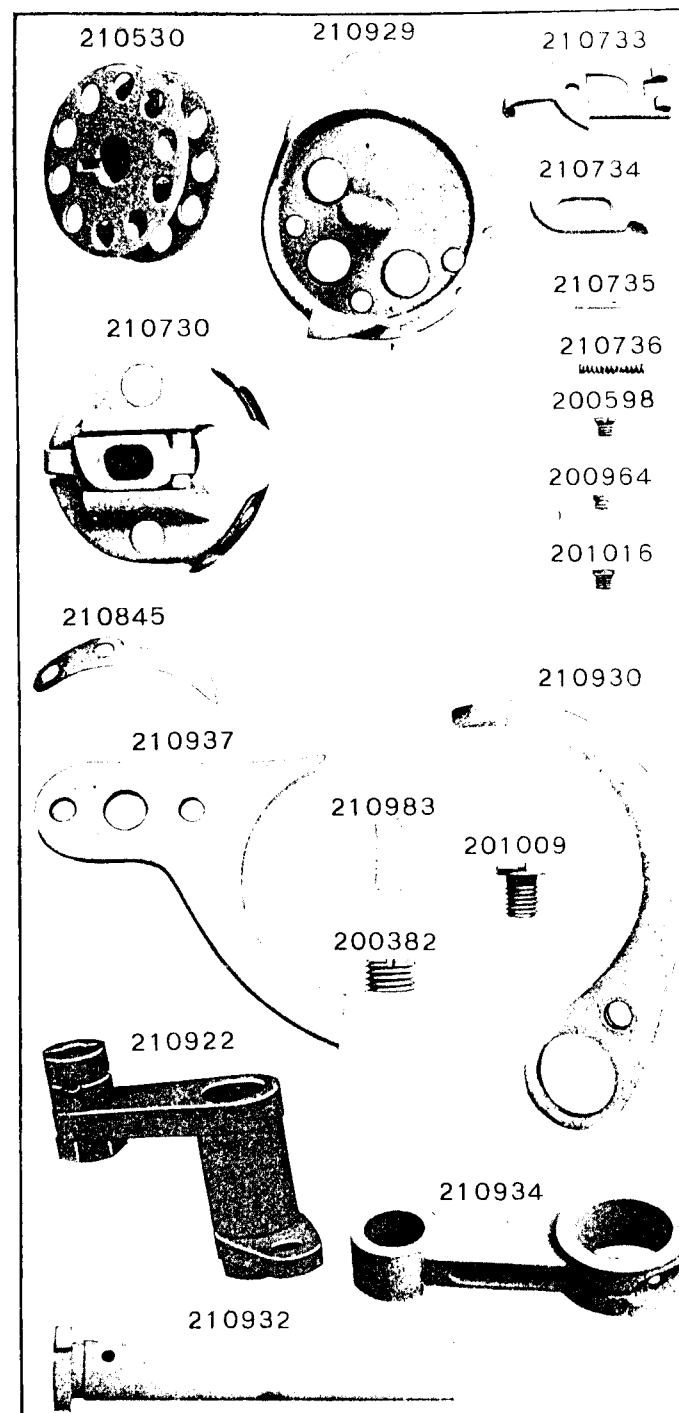


PLATE 11604 —ONE-HALF SIZE

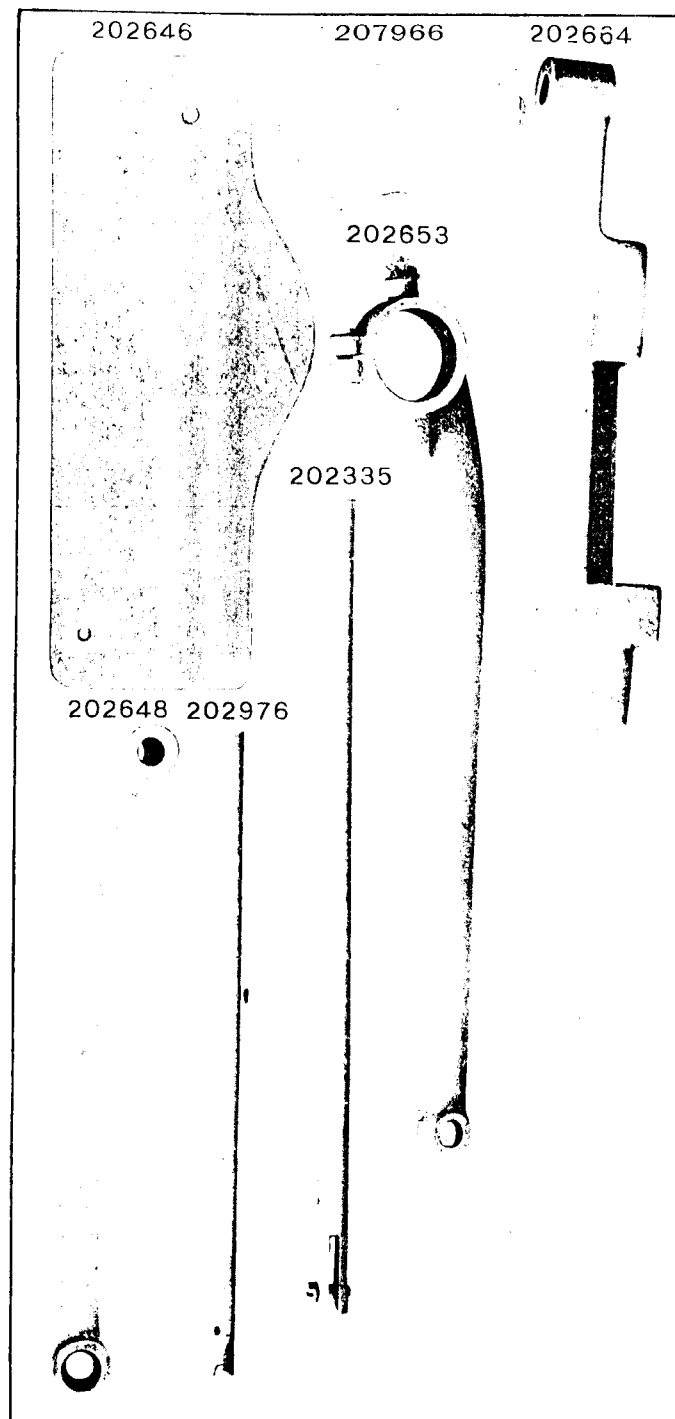


PLATE 11605 —FULL SIZE

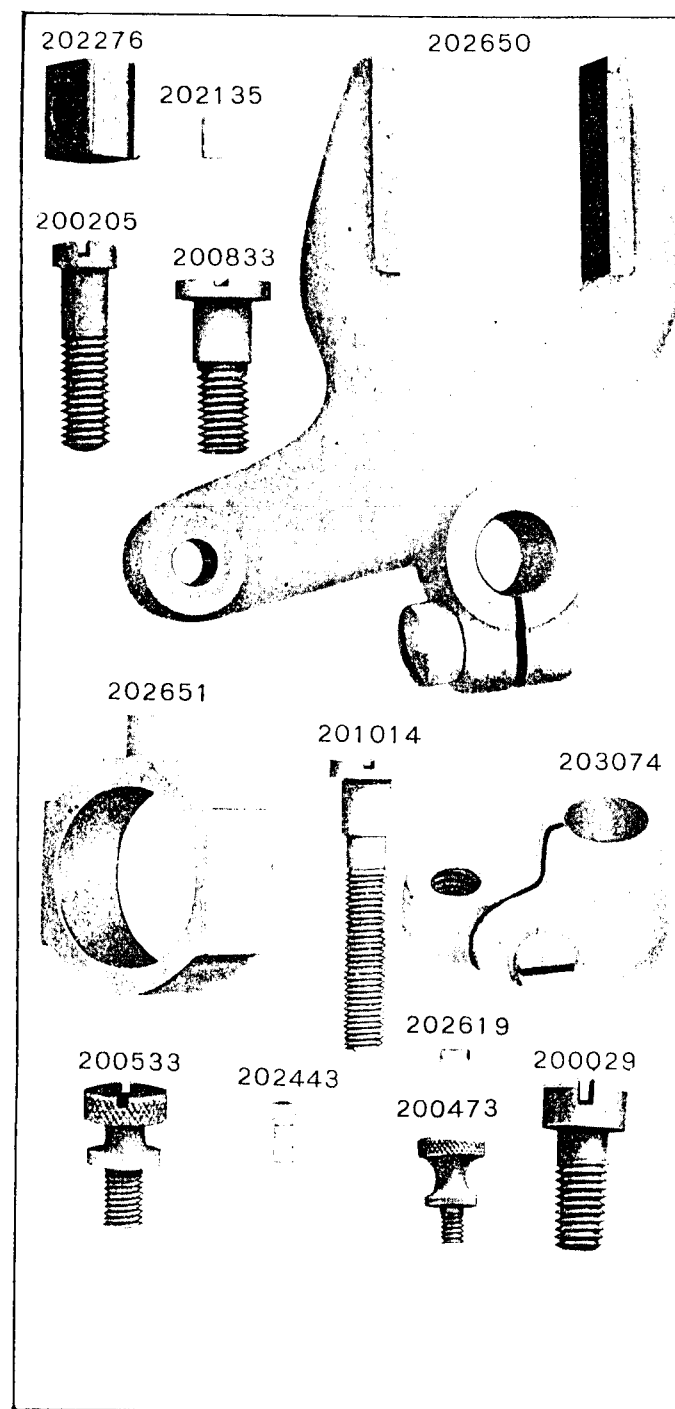


PLATE 11606 - FULL SIZE

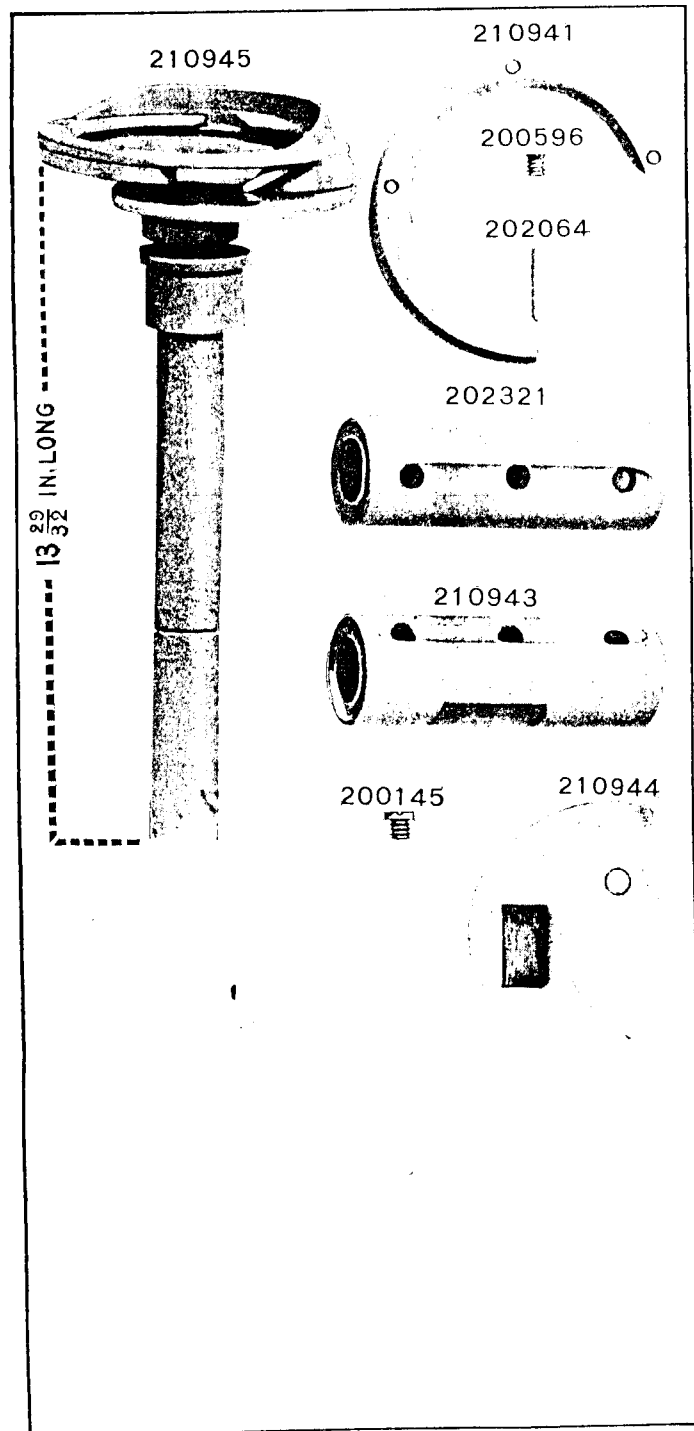


PLATE 11607 - FULL SIZE

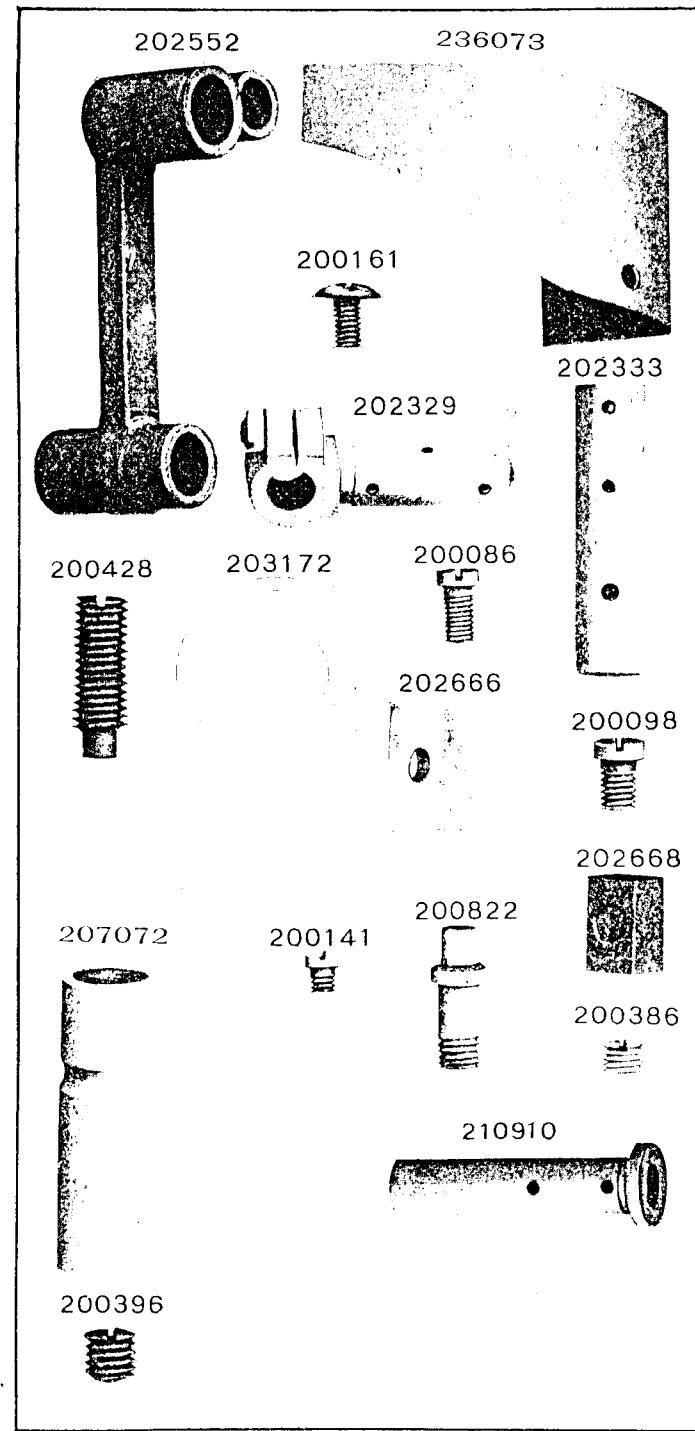


PLATE 11609 -FULL SIZE

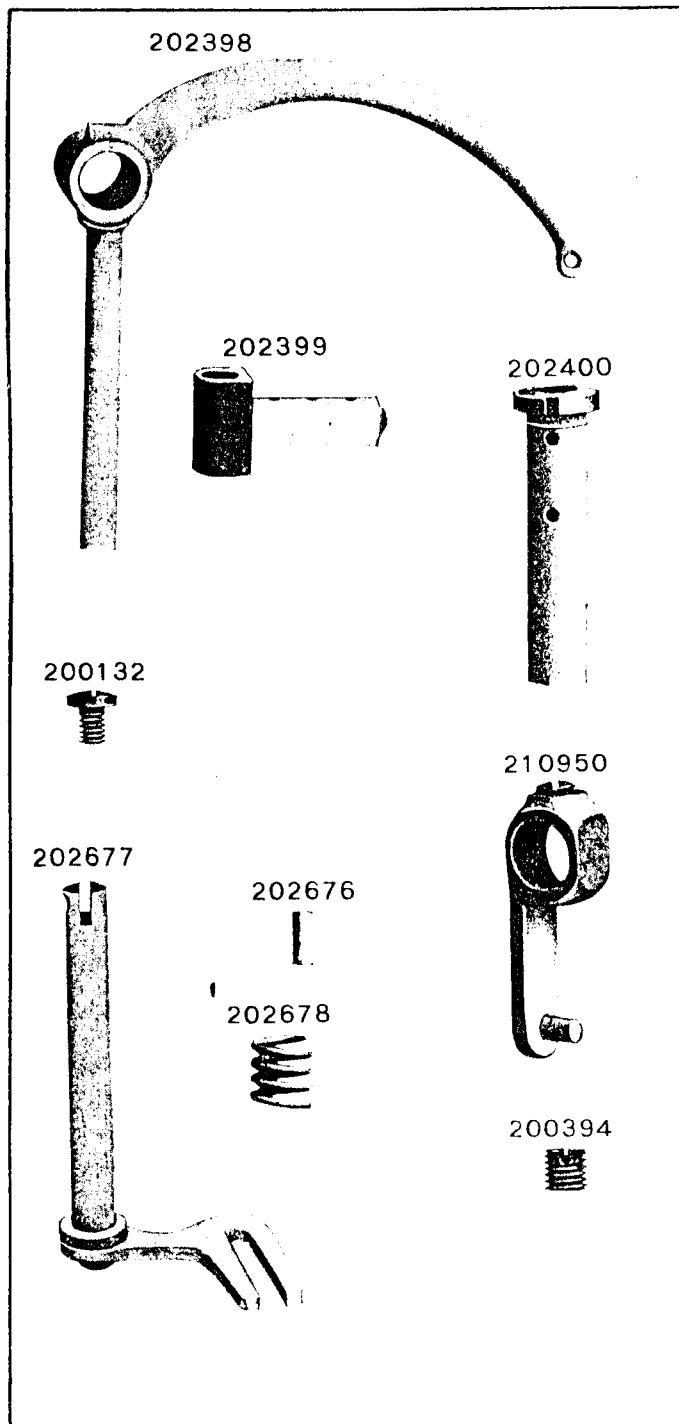


PLATE 11610 -FULL SIZE

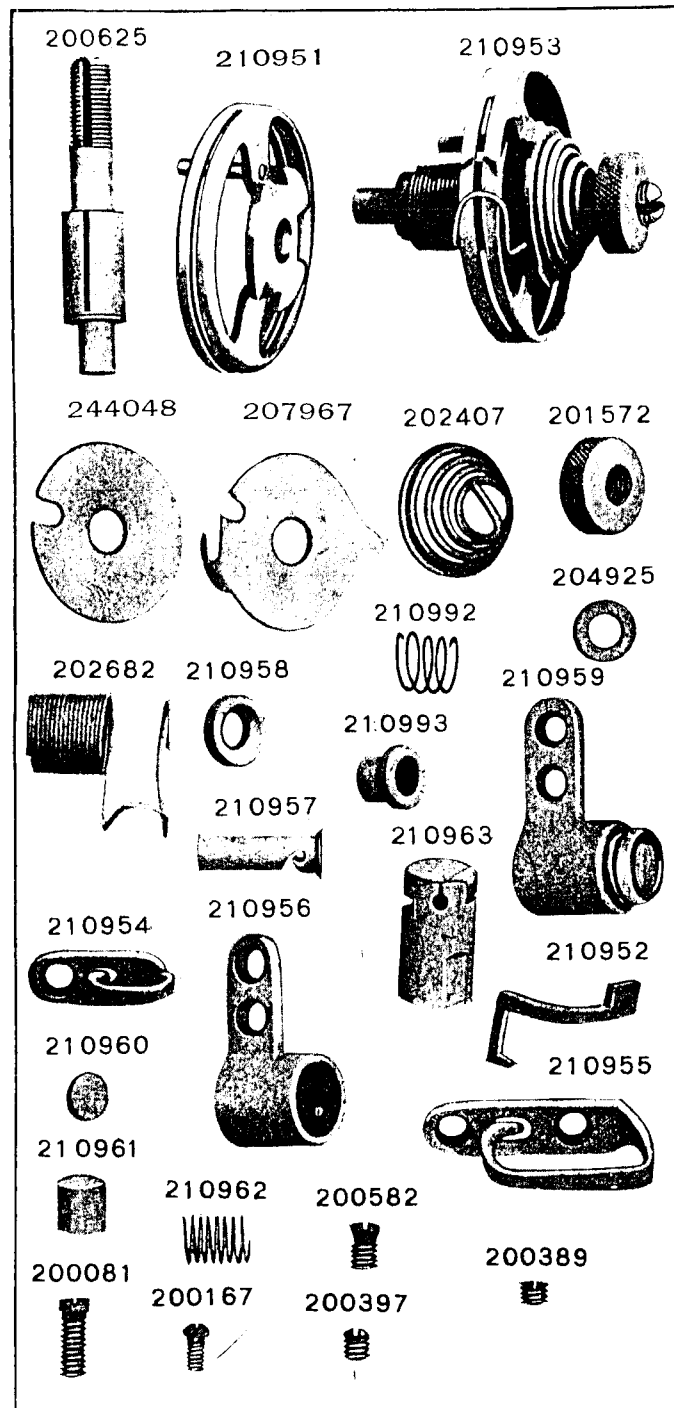


PLATE 11611—FULL SIZE

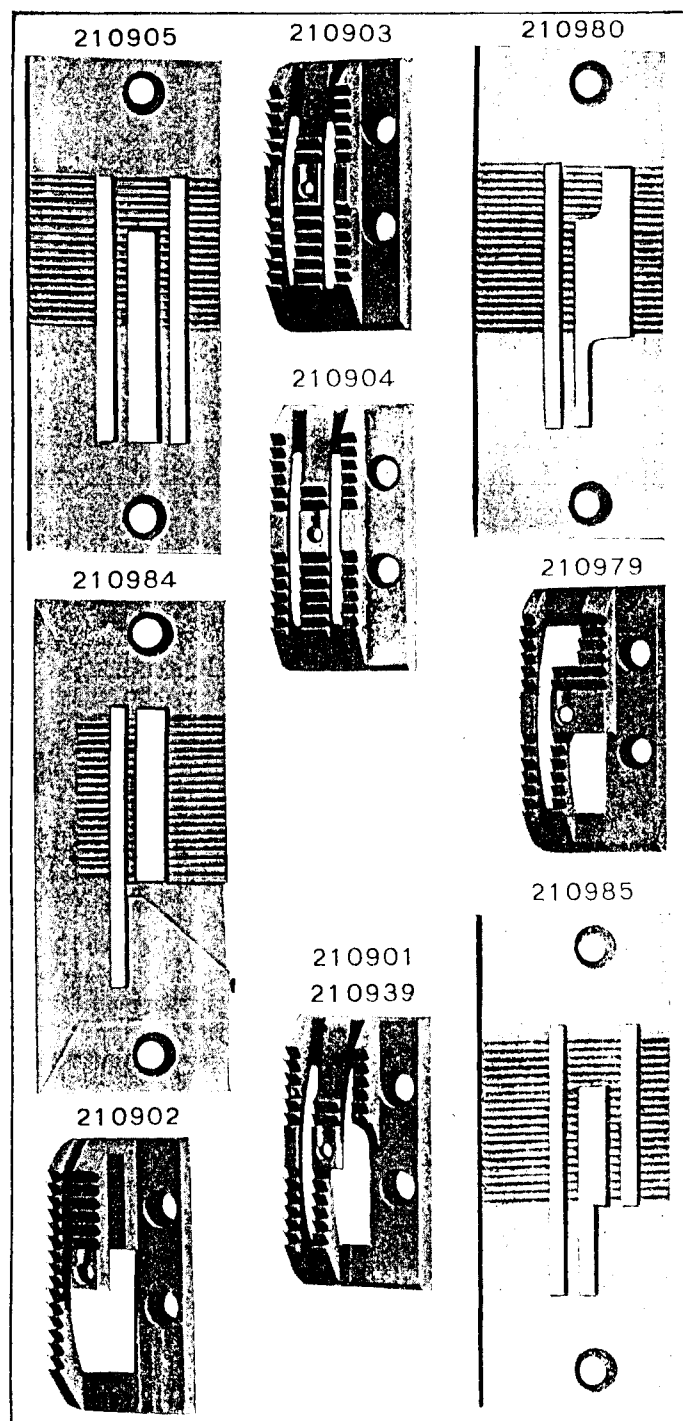


PLATE 11612—FULL SIZE

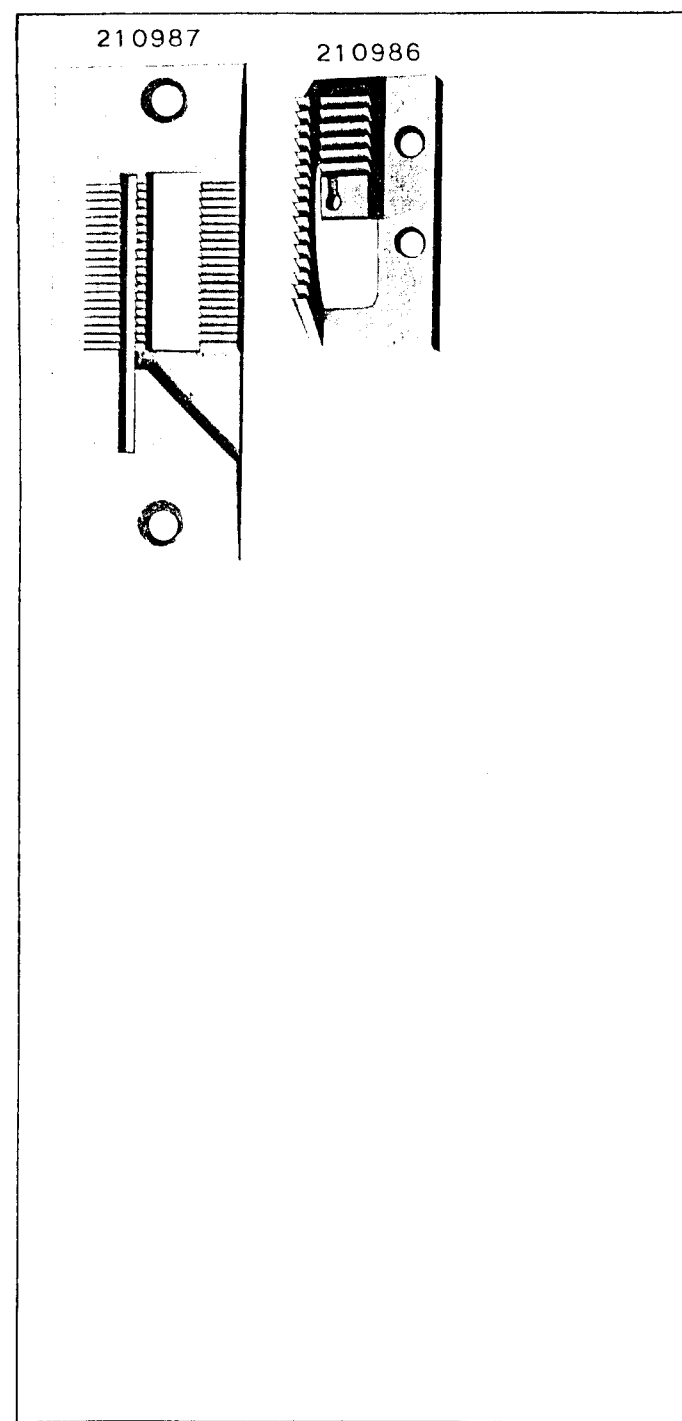
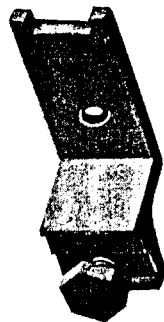


PLATE 11613--FULL SIZE

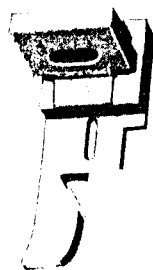
206998



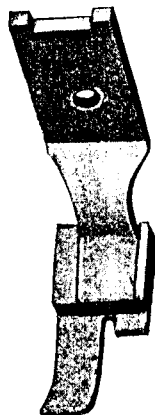
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202944



210989

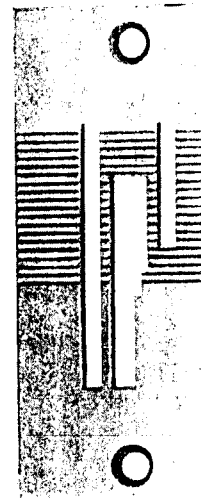


229882

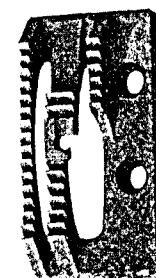


PLATE 11617 FULL SIZE

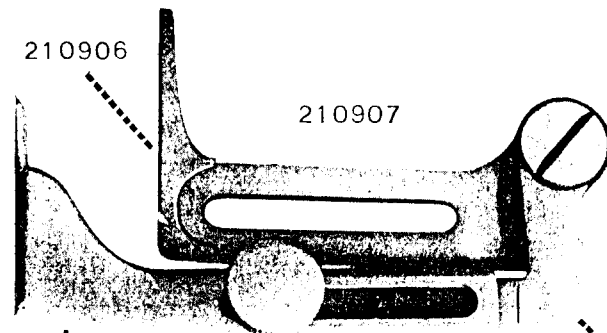
210909



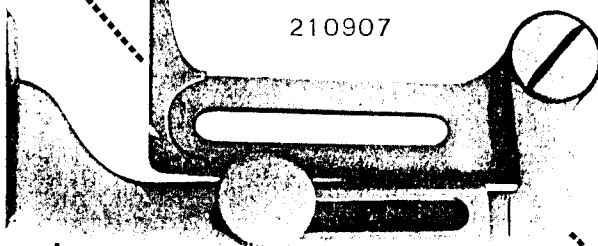
210908



210906



210907



28971

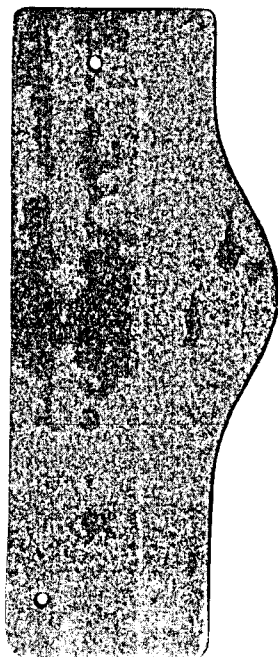


28972



PLATE 11618—ONE-HALF SIZE

210911

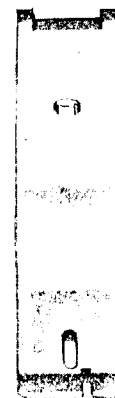


210923



PLATE 11619—FULL SIZE

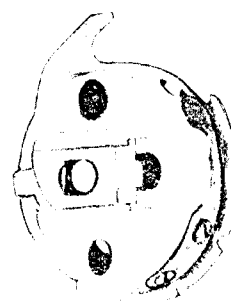
210919



210920



210916



210912

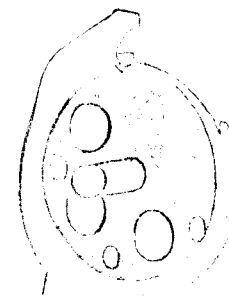


PLATE 11620-ONE-HALF SIZE

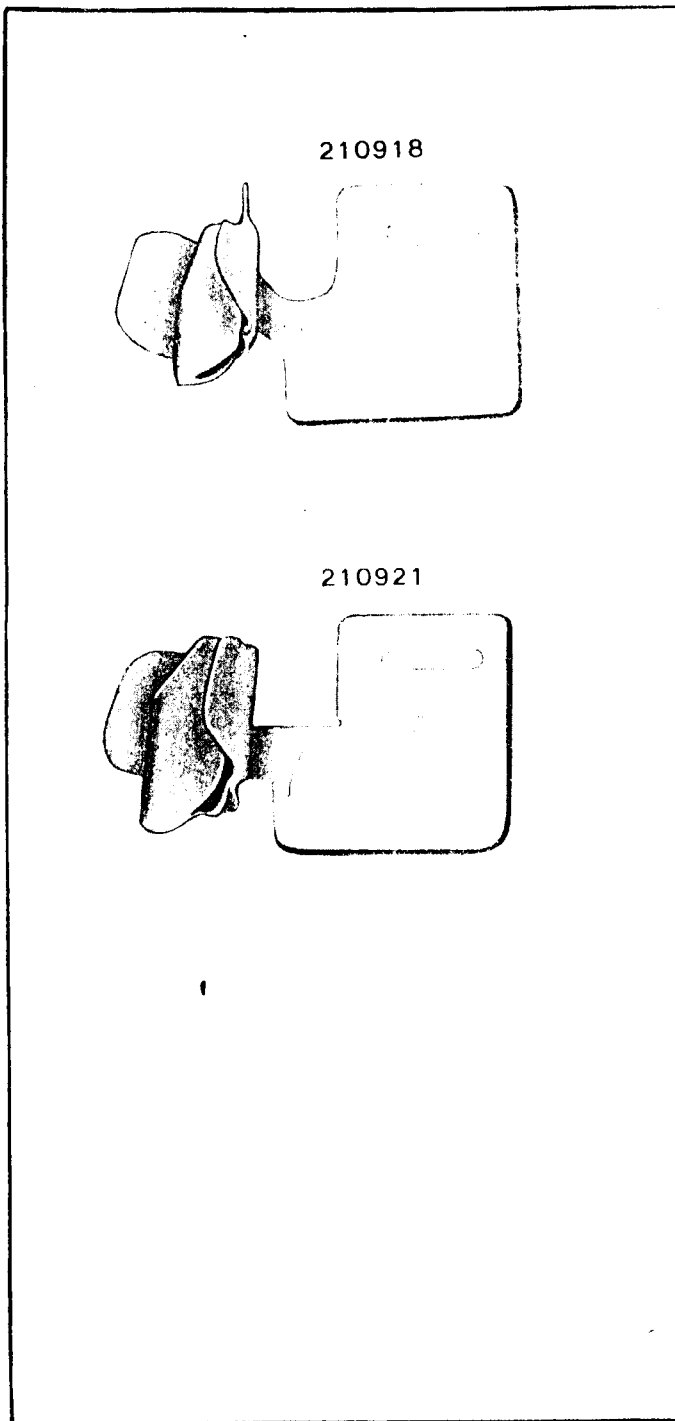


PLATE 11621-FULL SIZE

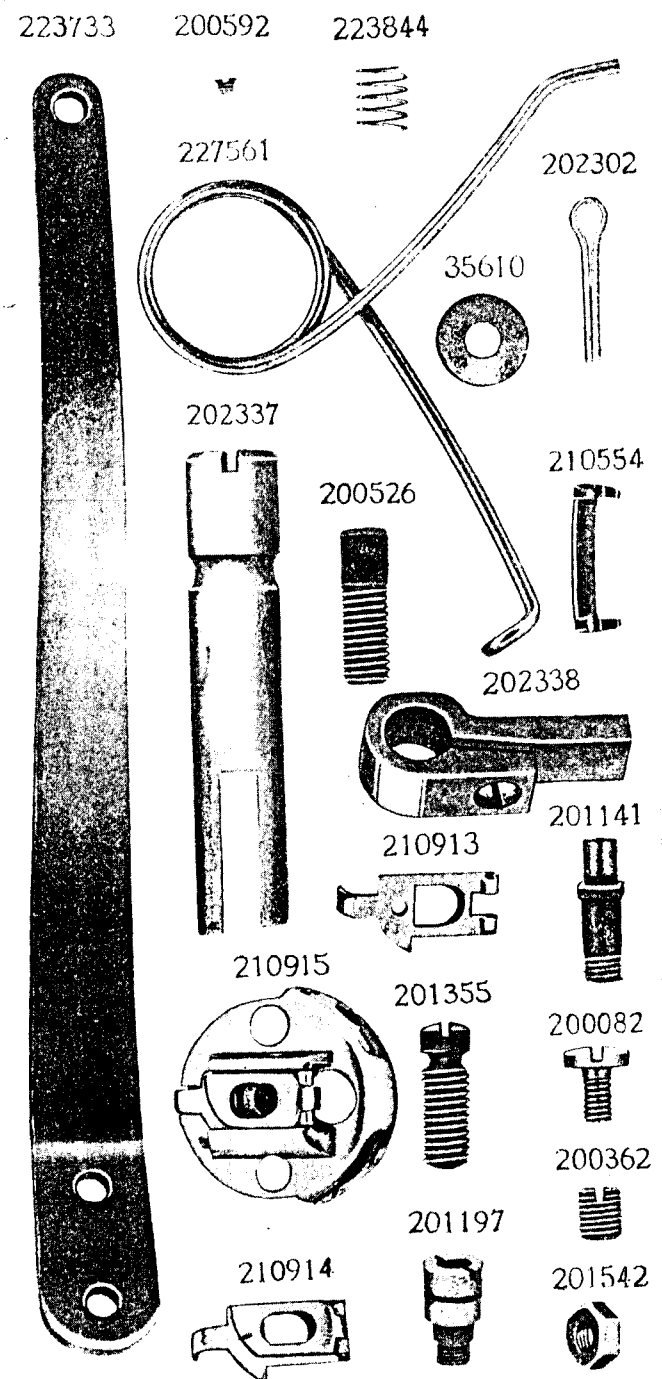


PLATE 11622—ONE-FOURTH SIZE

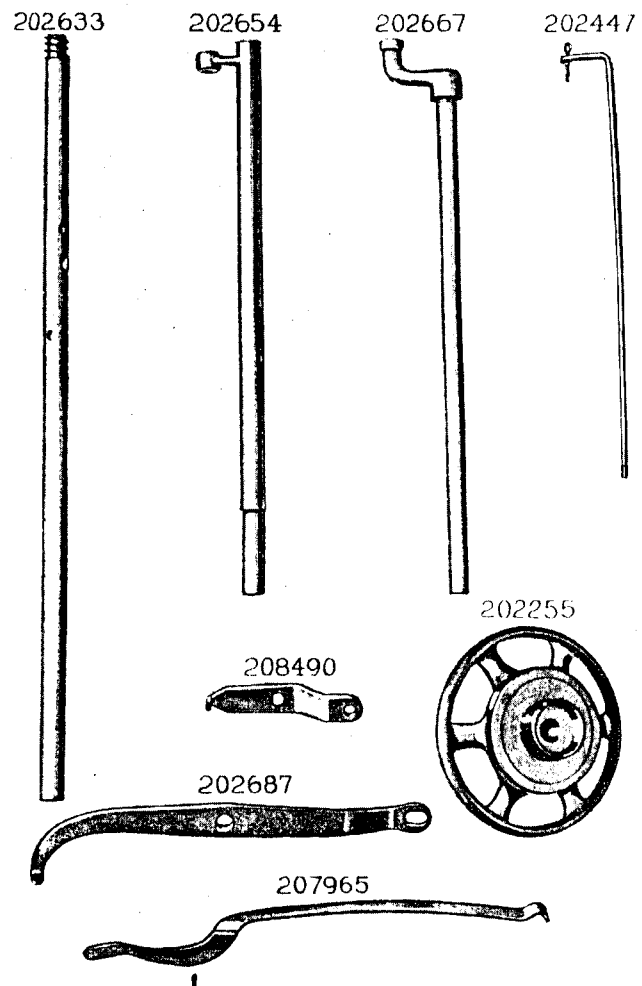


PLATE 11623—FULL SIZE

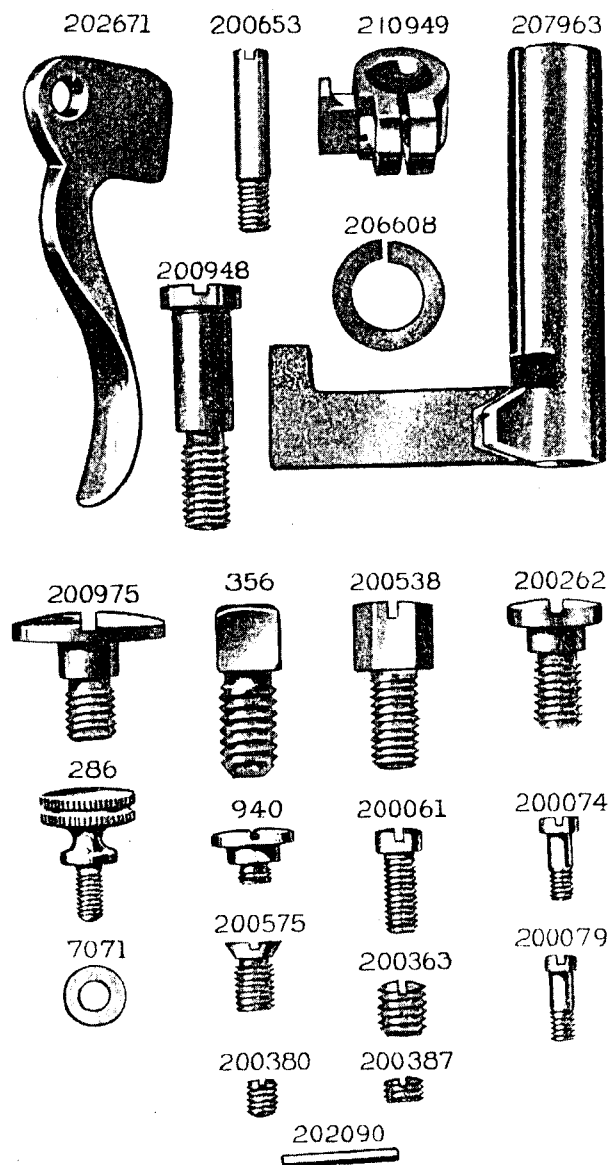


PLATE 12153—ONE-HALF SIZE

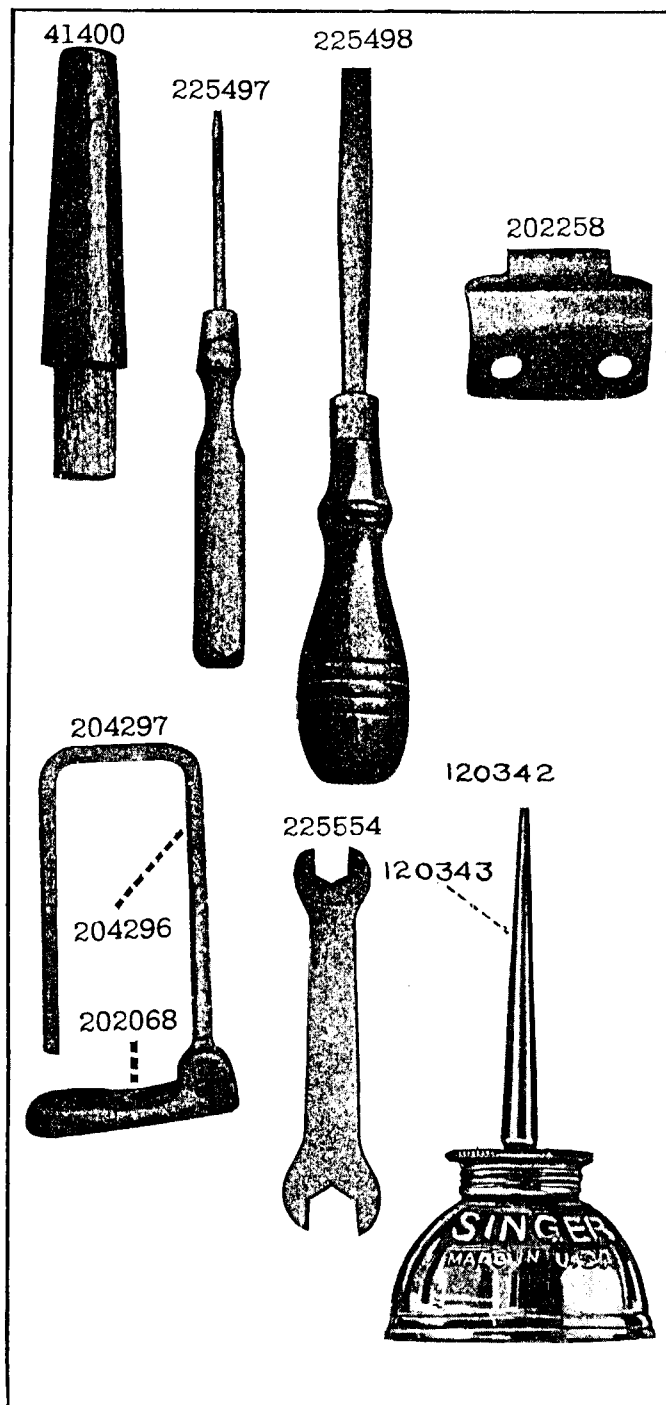


PLATE 13395—ONE-FOURTH SIZE

