

Form 19087
(537)
Printed in U. S. A.

LIST OF PARTS



MACHINES
Nos. 176-11, 176-12
and 176-13

THE SINGER MANUFACTURING COMPANY

INSTRUCTIONS FOR OILING

To ensure easy running and prevent unnecessary wear of the parts which are in movable contact, the machines require oiling each day.

Apply Singer "Stainless Oil for High Speed Sewing Machines" to all oil holes accessible from the outside. Remove the top cover and the front cover and lubricate all oiling points thus uncovered.

Copyright, U. S. A., 1935 and 1937,
by The Singer Manufacturing Co.
All Rights Reserved for all Countries

INDEX

	Page
Accessories.....	16
Feeding Disc Opening and Starting Parts.....	16
Machine Base.....	16
Machine No. 176-11.....	5
Machine No. 176-12.....	10
Machine No. 176-13.....	11
Numerical List of Parts.....	19
Spool Stands.....	18

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 in every case the number of the single part only.

Every combination of parts sent out as such has its specific number, which, although not stamped on the parts, 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
- F.J-Hardened, Polished and Nickel Plated
- G-Bright Rumbled and Nickel Plated
- H-Blued
- J-Nickel Plated Only
- K-Hardened and Nickel Plated
- L-Brass Plated
- M-Oxidized
- N-Japanned, Dull
- P-Japanned, Bright
- R-Merlized
- S-Cadmium Plating
- T-Copper Plated
- T.A-Hardened, Polished, Copper and Nickel Plated and Buffed
- T.B-Copper and Nickel Plated and Polished
- T.J-Copper and Nickel Plated Only
- T.K-Hardened, Copper and Nickel Plated
- T.M-Copper Plated and Oxidized
- T.L-Copper and Brass Plated
- U-Zinc Plated
- V-Silver Plated
- W-Polished and Nickel Plated
- Y-Black Nickel Plated Only
- Z-Chromium Plated
- Z.B-Polished, Nickel Plated, Buffed and Chromium Plated
- Z.J-Nickel and Chromium Plated

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

In this series:

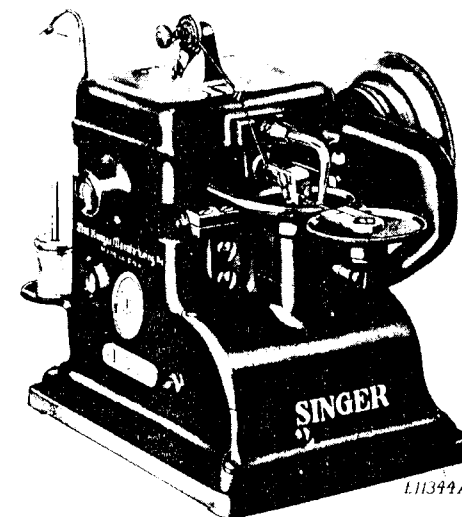
1 to 1500, 50001 to 51500 and 140001 to 142000 are Screw Numbers
 1501 to 1800 and 51501 to 51800 are Nut Numbers
 1801 to 2000 and 51801 to 52000 are Roller Numbers
 2001 to 50000 and 52001 to 140000 and 142001 to 190000 are Sewing Machine Parts, 190001 and upward are numbers of Electrical Parts.

The figures in the second column refer only to the plates, illustrating the parts, and are NOT TO BE USED in ordering.

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

LIST OF PARTS COMPLETE

FOR



MACHINE No. 176-II

For Light and Medium Fur Work. Horizontal needle bar with 1 inch stroke. Three movement looper. Can be adjusted to make from 8 to 36 stitches per inch. Discs have 1/8 inch wide toothed feed surface for regular work and 1/16 inch for ermine and mink. Speed 2000 R. P. M.

No.	Plate	Name
176001	22628	Balance Wheel, 2 1/8 in. diam. pulley, with 435C.....
	435C	22627 Balance Wheel Set Screw.....
176002	22628	" " Shaft.....
176003	22628	" " " Bushing (left).....
	998C	22627 " " " " " Set Screw.....
176004	22628	Balance Wheel Shaft Bushing (right).....
	998C	22627 " " " " " Set Screw.....
176005	22631	Balance Wheel Shaft Counterbalance.....
	180E	22627 " " " " " Screw
176008	22627	" " Washer (felt).....

No.	Plate	Name
178051	22832	Looper Driving Shaft Frame.....
178233	-----	" " " " 178051 with 178047,178049,178061 and 178064.....
178052	22832	Looper Driving Shaft Frame Crank.....
178053	22832	" " " " " 178052 with 178054.....
178232	-----	Looper Driving Shaft Frame Crank 178053 with 51869J and 178055.....
178054	22832	Looper Driving Shaft Frame Crank Driving Stud.....
178055	22832	Looper Driving Shaft Frame Crank Hinge Bracket.....
178199	22830	Looper Driving Shaft Frame Crank Hinge Bracket Packing (.004 in. thick)....
178200	-----	Looper Driving Shaft Frame Crank Hinge Bracket Packing (.008 in. thick)....
178154	-----	Looper Driving Shaft Frame Crank Hinge Bracket Packing (.020 in. thick)....
1396C	22830	Looper Driving Shaft Frame Crank Hinge Bracket Screw.....
51869J	22827	Looper Driving Shaft Frame Crank Nut....
178057	22830	" " " " Hinge Screw Stud.....
51869J	22827	Looper Driving Shaft Frame Hinge Screw Stud Nut.....
178059	22831	Looper Oscillating Cam with 889C.....
178228	-----	" " " 178059 with 178005 and two 180E.....
178060	22830	Looper Oscillating Cam Pin.....
889C	22827	" " " Set Screw.....
178061	22830	" " Crank with 50203E....
178062	22830	" " Ball.....
178234	-----	" " " 178062 with 178063.....
178063	22830	Looper Oscillating Crank Ball Stud.....
50203E	22830	" " " " Clamp- ing Screw.....
178064	22830	Looper Oscillating Crank Pin.....
*178050	-----	Needle Bar (hollow).....
178065	22831	" " 178050 with 178058 and 178075
178066	-----	Needle Bar complete, Nos.140082F,140083F 140084F,178065,178070,178071, 178073 and 178074.....
178067	22830	Needle Bar Bushing with 178101.....
51862C	22833	" " " Lock Nut.....
178101	22833	" " " Steady Pin.....
178068	22831	" " Connection with two 152E....
152E	22833	" " " Clamping Screw....
178069	22831	" " Eccentric with 449C.....

No.	Plate	Name
178009	22827	Needle Bar Eccentric Pin.....
449C	22833	" " " Set Screw.....
178070	22833	" " Thread Guide.....
140082F	22833	" " " Screw.....
140083F	22833	" " " Nipper Screw.....
178071	22833	" " " Bushing..
178072	22832	" " " Slide Rod.....
50421C	22833	" " " " " Set Screw.....
178073	22833	Needle Bar Thread Nipper Spring.....
178074	22833	" Clamp.....
*178058	-----	" " Body.....
140084F	22833	" " Screw.....
178075	22833	" " Steady Pin.....
178076	22833	" Guide, for Regular Work.....
178208	22833	" " " Ermine and Mink.....
50128F	22833	" " Screw.....
178077	22833	Stitch Indicator.....
178078	22833	" Regulating Screw Stud.....
178079	22833	" " " 178078 with 178038 and 178080.....
178080	22833	Stitch Regulating Screw Stud Block.....
178038	22830	" " " " Pin..
1850C	22827	" " " Nut.....
178082	22833	" " " Washer.
178083	22833	" " " Slide Block
51863J	22833	" " " Thumb Nut..
633C	22834	Tension Screw Stud.....
58592	-----	" " " 633C with 1580C.....
2102	22834	" Disc.....
1580C	22834	" Regulating Thumb Nut.....
178084	22834	" Spring.....
178085	-----	Tension complete, Nos. 58592,178084 and two 2102.....
178086	22832	Work Guide.....
440C	22827	" " Set Screw.....
*15404	-----	Trade Mark.....
15405	-----	" " Rivet.....

MACHINE No. 176-12

For Medium and Heavy Fur Work. Also used for closing and sleeve operations. Horizontal needle bar with 1 1/8 inch stroke. Three movement looper. Can be adjusted to make from 8 to 36 stitches per inch. Discs have 1/8 inch wide toothed feed surface. Speed 1750 R. P. M.

NOTE: THIS MACHINE IS THE SAME AS THE 176-11 WITH THE FOLLOWING EXCEPTIONS:

No.	Plate	Name
176223	-----	Feeding Disc (front) 178028 with 50128F, 178037, 178214 and twelve 178038, in place of 178221 and 176222 ..
*176208	-----	Head of Machine with 15404 and two each 15405 and 178009, in place of 178039
176209	22832	Looper, in place of 178048.....
176231	-----	" Driving Eccentric 178048 with 178229, in place of 178230.....
176210	22832	Looper Driving Shaft Frame, in place of 178051.....
176235	-----	Looper Driving Shaft Frame 178210 with 178047, 178049, 178081 and 178084, in place of 178233.....
176211	22832	Looper Driving Shaft Frame Crank Hinge Bracket (back) in place of one 178055.....
176212	22831	Looper Oscillating Cam with 889C, in place of 178059.....
176229	-----	Looper Oscillating Cam 178212 with 178005 and two 180E, in place of 178228.....
176218	22831	Needle Bar 178050 with 178058 and 178075 in place of 178065.....
176217	-----	Needle Bar complete, Nos. 140082F, 140083F, 140084F, 178070, 178071, 178073, 178074 and 178218, in place of 178068.....
176219	22831	Needle Bar Eccentric with 449C, in place of 178089.....
176213	22832	Needle Bar Thread Nipper Slide Rod, in place of 178072.....
176214	22833	Needle Guide, in place of 178076 and 176206

LIST OF PARTS COMPLETE FOR

MACHINE No. 176-13

For Heaviest of Fur Work. Horizontal needle bar with 1 3/8 inch stroke. Three movement looper. Can be adjusted to make from 4 to 10 stitches per inch. Discs have 5/32 inch wide toothed feed surface. Speed 1500 R. P. M.

No.	Plate	Name
176100	22638	Balance Wheel, 3 15/16 in. diam. pulley, with 445C.....
	445C	Balance Wheel Set Screw.....
176102	22635	" " Shaft.....
176103	22635	" " " Bushing (left).....
	998C	" " " " " Set Screw
176104	22635	" " " " (right).....
	998C	" " " " " Set Screw.....
176105	22635	Balance Wheel Shaft Counterbalance (large).....
176108	22635	Balance Wheel Shaft Counterbalance (small).....
	145E	Balance Wheel Shaft Counterbalance Screw (long).....
	159E	Balance Wheel Shaft Counterbalance Screw (short).....
176107	22634	Balance Wheel Washer (felt).....
176108	22635	Feed Connection.....
	140086C	" " Hinge Screw.....
176109	22635	" Eccentric with 889C.....
176110	22634	" " Pin.....
	889C	" " Set Screw.....
176111	22635	" Lever.....
176112	22636	Feeding Disc (back) with two 445C.....
	445C	" " " Set Screw.....
176113	22635	" " " Shaft.....

No.	Plate	Name
176114	22635	Feeding Disc (back) Shaft Reinforcing Sleeve with two 445C.....
445C	22634	Feeding Disc (back) Shaft Reinforcing Sleeve Set Screw.....
176150	22635	Feeding Disc (back) Worm Gear with two 445C.....
445C	22634	Feeding Disc (back) Worm Gear Set Screw.
176151	22635	" " " " Wheel.....
176115	22637	" " " " " Driver with 440C.....
176017	22627	Feeding Disc (back) Worm Wheel Driver Collar with 460C.....
460C	22627	Feeding Disc (back) Worm Wheel Driver Collar Set Screw.....
176116	22634	Feeding Disc (back) Worm Wheel Driver Pressure Spring.....
176117	22634	Feeding Disc (back) Worm Wheel Driver Pressure Spring Stud.....
176118	22634	Feeding Disc (back) Worm Wheel Driver Screw Stud.....
176119	22634	Feeding Disc (back) Worm Wheel Driver Wearing Screw Stud.....
51664C	22634	Feeding Disc (back) Worm Wheel Driver Wearing Screw Stud Nut.....
440C	22627	Feeding Disc (back) Worm Wheel Driver Wearing Screw Stud Set Screw.....
176120	22634	Feeding Disc (back) Worm Wheel Pin.....
176121	22637	" " " " " Shaft....
176122	-----	" " " " " " "
		176121 with 176120 and 176151.....
577C	22627	Feeding Disc (back) Worm Wheel Shaft Screw Center.....
176024	-----	Feeding Disc (back) Worm Wheel Shaft Screw Center 577C with 51661J.....
51661J	22627	Feeding Disc (back) Worm Wheel Shaft Screw Center Nut.....
176123	22637	Feeding Disc (back) Worm Wheel Stop Dog.
176124	22637	" " " " " " "
		Hinge Stud.....
435C	22627	Feeding Disc (back) Worm Wheel Stop Dog Hinge Stud Set Screw.....
176125	22637	Feeding Disc (back) Worm Wheel Stop Dog Spring.....
176126	22636	Feeding Disc (front).....
176224	-----	" " " " 176126 with 51285F, 176175, 176186 and fourteen 176134....
*176127	22638	Feeding Disc (front) Arm with 1396C.....
176128	22638	" " " " " 176127 with 176132, 176133 and two 176009.....

No.	Plate	Name
176129	22637	Feeding Disc (front) Arm Bell Crank.....
176130	22637	" " " " " " Shaft
577C	22627	" " " " " " " "
		Set Screw.....
176131	22637	Feeding Disc (front) Arm Pressure Spring
140087E	22641	" " " " " " "
		Screw.....
1714E	22630	Feeding Disc (front) Arm Pressure Spring Screw Nut.....
*176132	22638	Feeding Disc (front) Arm Shaft (lower)..
*176133	22638	" " " " " " (upper)..
176009	22627	" " " " " " Pin.....
176186	22636	" " " " " " Bearing Screw Stud.
1396C	22630	" " " " " " " "
		Clamping Screw.....
176134	22641	Feeding Disc (front) Roller.....
*176135	-----	Head of Machine with 15404 and two each 15405 and 176009:.....
176136	22637	Head of Machine Back Cover.....
176137	22637	" " " " " " Clamp.....
376J	22630	" " " " " " Screw.....
176138	22638	" " " " " " Front Cover.....
140088R	22634	" " " " " " Screw.....
176139	22638	" " " " " " Top Cover with three 176045.....
176009	22627	Head of Machine Top Cover Steady Pin....
176045	22630	" " " " " " Thread Eyelet.
176140	22639	Looper.....
176141	22640	" Clamping Nut.....
176142	22639	" Driving Eccentric with 889C.....
889C	22627	" " " " " Set Screw.....
176143	22639	" " " " " Shaft.....
176145	22639	" " " " " Frame.....
176146	22639	" " " " " Crank.....
176147	22639	" " " " " " 176148
		with 176148.....
176148	22639	Looper Driving Shaft Frame Crank Driving Stud.....
176149	22639	Looper Driving Shaft Frame Crank Hinge Bracket (back).....
176144	22639	Looper Driving Shaft Frame Crank Hinge Bracket (front).....
176153	-----	Looper Driving Shaft Frame Crank Hinge Bracket (front) Packing (.008 in. thick).....
176152	22639	Looper Driving Shaft Frame Crank Hinge Bracket (front) Packing (.020 in. thick).....
1396C	22630	Looper Driving Shaft Frame Crank Hinge Bracket Screw.....

No.	Plate	Name
1684J	22841	Looper Driving Shaft Frame Crank Nut....
176155	22638	" Oscillating Cam with 889C.....
176156	22640	" " " Pin.....
889C	22627	" " " Set Screw.....
176157	22640	" " " Crank with 164E.....
176158	22640	" " " Ball.....
176159	22640	" " " Stud.....
164E	22640	" " " Clamp- ing Screw.....
176160	22640	Looper Oscillating Crank Pin.....
*176081	-----	Needle Bar (hollow).....
176161	22639	" " 176081 with 176173.....
176162	-----	Needle Bar complete, Nos.140082F,140089F, 140090F,176161,176168,176169,176171, 176172 and 176174.....
176163	22640	Needle Bar Bushing with 176164.....
51665C	22634	" " " Lock Nut.....
176164	22640	" " " Steady Pin.....
176165	22636	" " " Connection with two 51320E...
51320E	22640	" " " Clamping Screw....
176166	22838	" " " Eccentric with 889C.....
176110	22634	" " " Pin.....
889C	22627	" " " Set Screw.....
176168	22640	" " " Thread Guide.....
140082F	22633	" " " " Screw.....
140089F	22640	" " " Nipper Screw.....
176169	22640	" " " " Bushing..
176170	22638	" " " " Slide Rod.....
440C	22627	" " " " " Set Screw.....
176171	22640	Needle Bar Thread Nipper Spring.....
176172	22640	" " Clamp.....
*176173	-----	" " Body.....
140090F	22640	" " Screw.....
176174	22640	" " Steady Pin.....
176175	22641	" " Guide.....
51285F	22641	" " Screw.....
176176	22641	Stitch Indicator.....
176177	22641	" " Regulating Screw Stud.....
176178	22641	" " " " 176177 with 176179 and 176180.....
176179	22641	Stitch Regulating Screw Stud Block.....
176180	22641	" " " " " Pin..
1684C	22641	" " " " " Nut.....
176181	22641	" " " " " Washer.
176182	22641	" " " " " Slide Block
51466J	22641	" " " " " Thumb Nut..
633C	22634	Tension Screw Stud.....
58592	-----	" " " 633C with 1560C.....

No.	Plate	Name
2102	22634	Tension Disc.....
1560C	22634	" " Regulating Thumb Nut.....
176084	22634	" " Spring.....
176085	-----	Tension complete, Nos. 58592,176084 and two 2102.....
176183	22636	Work Guide.....
448C	22640	" " Set Screw.....
*15404	-----	Trade Mark.....
15405	-----	" " Rivet.....

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

ACCESSORIES

No.	Plate	Name
176203	-----	Belt, 1/4 in. round, 36 in. long, with 176088, for 176-11 and 176-12 Machines.....
176087	-----	Belt, 5/16 in. round, 36 in. long, with 25029, for 176-13 Machine.....
176088	22641	Belt Hook, for 176203.....
25029	22641	" " " 176087.....
120342	22642	Oiler (copper plated) with 120343.....
120343	22642	" Spout, 3 1/2 in. long.....
26026	22642	Screw Driver.....
176089	22642	Tweezers.....
176201	22642	Wrench for 176047, for 176-11 and 176-12 Machines.....
176202	22642	Wrench for 176141, for 176-13 Machine...

MACHINE BASE

No.	Plate	Name
176090	22643	Machine Base with four wood screws 1 in. No. 10 F.H., for 176-11 and 176-12 Machines.....
176184	22638	Machine Base with four wood screws 1 in. No. 10 F.H., for 176-13 Machine
49123	22642	Machine Base Oil Pipe.....
49124	22642	" " " " Drain Cock.....
145E	22634	" Screw, for 176-11 and 176-12 Machines.....
122E	22641	Machine Screw, for 176-13 Machine.....

FEEDING DISC OPENING
AND
STARTING PARTS

No.	Plate	Name
175216	22643	Feeding Disc Opening Treadle.....
175217	22641	" " " " Hinge Pin..
175218	22643	" " " " Stand.....
175219	22643	Feeding Disc Opening Treadle complete, Nos. 175216 to 175218 and two wood screws 1 in. No. 14 F.H.....
46848	22643	Feeding Disc Opening Treadle Pitman Rod (lower).....

No.	Plate	Name
46848	22643	Feeding Disc Opening Treadle Pitman Rod (upper).....
46849	22643	Feeding Disc Opening Treadle Pitman Rod (upper) Connecting Lever.....
46850	22643	Feeding Disc Opening Treadle Pitman Rod (upper) Connecting Lever Bracket....
24665	22634	Feeding Disc Opening Treadle Pitman Rod (upper) Connecting Lever Hinge Pin..
46851	22643	Feeding Disc Opening Treadle Pitman Rod (upper) Connecting Lever complete, Nos. 24665, 46849, 46850 and two wood screws 3/4 in. No. 10 R.H., for 176-11 and 176-12 Machines.....
152011	22643	Feeding Disc Opening Treadle Pitman Rod (upper) Connecting Lever complete, Nos. 24665, 46849, 46850 and two wood screws 3/4 in. No. 10 R.H., for 176-13 Machine.....
176207	22643	Feeding Disc Opening Treadle Pitman Rod (upper) Connecting Lever Chain (7 links) for 176-11 and 176-12 Machines
176185	22643	Feeding Disc Opening Treadle Pitman Rod (upper) Connecting Lever Chain (8 links) for 176-13 Machine.....
80223	22643	Feeding Disc Opening Treadle Pitman Rod Clamp with 361C.....
361C	22641	Feeding Disc Opening Treadle Pitman Rod Clamp Set Screw.....
123183	22634	Feeding Disc Opening Treadle Pitman Rod Cotter Pin.....
176091	22643	Feeding Disc Opening Treadle Pitman Rod complete, Nos. 80223 and two each 46848 and 123183.....
175216	22643	Starting Treadle.....
175217	22641	" " Hinge Pin.....
175218	22643	" " Stand.....
175219	22643	Starting Treadle complete, Nos. 175216 to 175218 and two wood screws 1 in. No. 14 F.H.....
46848	22643	Starting Treadle Pitman Rod (lower)....
46848	22643	" " " " (upper)....
80223	22643	" " " " Clamp with 361C.....
361C	22641	Starting Treadle Pitman Rod Clamp Set Screw.....
123183	22634	Starting Treadle Pitman Rod Cotter Pin..
176091	22643	Starting Treadle Pitman Rod complete, Nos. 80223 and two each 46848 and 123183.....

SPOOL STANDS

SPOOL STAND

FOR 176-11 and 176-12 MACHINES

No.	Plate	Name
176092	22844	Spool Base with 176093.....
176093	22844	" Pin.....
176094	22844	" Weight (large).....
176095	22844	" (medium).....
176096	22844	" (small).....
176097	22844	Thread Guide.....
176098	22844	Spool Stand complete, Nos. 176092 and 176094 to 176097.....
1396C	22830	Spool Stand Screw.....

SPOOL STAND

FOR 176-13 MACHINE

No.	Plate	Name
27882	22844	Spool Rest.....
60855	-----	" " 27882 with 27884.....
41514	22844	" Weight, 4 in. diam., with 41515...
41515	-----	" " Center Pin.....
27884	22844	Thread Eyelet Rod.....
27885	22844	Spool Stand complete, Nos. 41514, 60855 and two wood screws 3/4 in. No. 10 F.H..

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

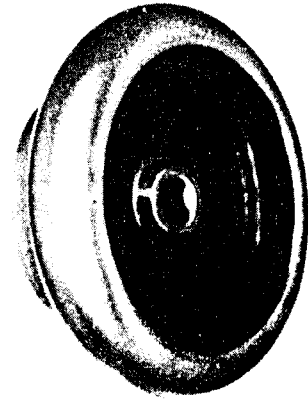
Needles in Containers marked
"For Singer Machines"
are not Singer made needles. 2

ILLUSTRATIONS
OF
PARTS

176002



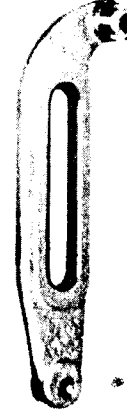
176001



176007



176010



176004



176003



176011



176204



176028

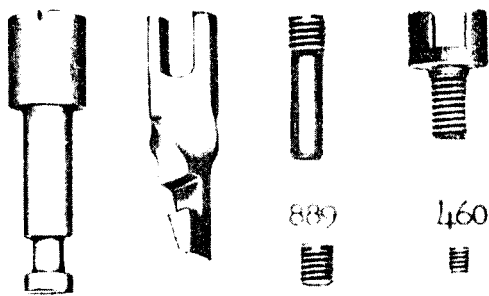


176205



PLATE 22627 - FULL SIZE

176026 176025 176020 176021



889
460

176009 176022 176018 176019

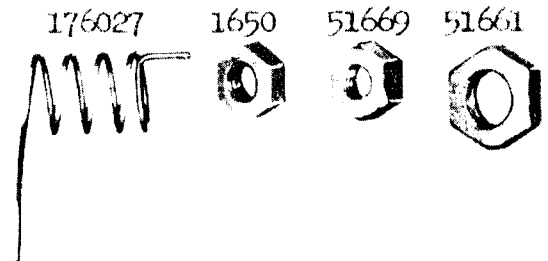
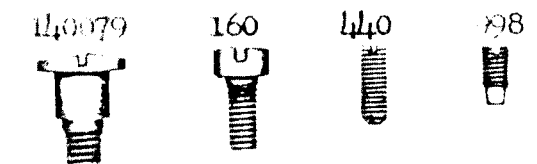
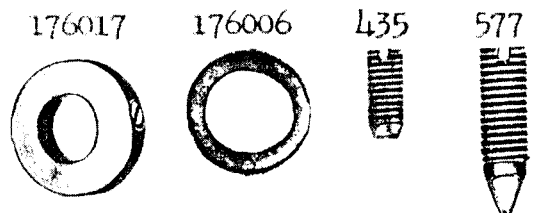
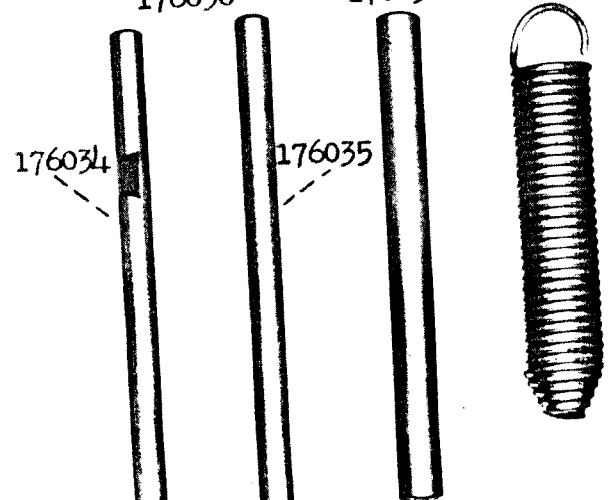
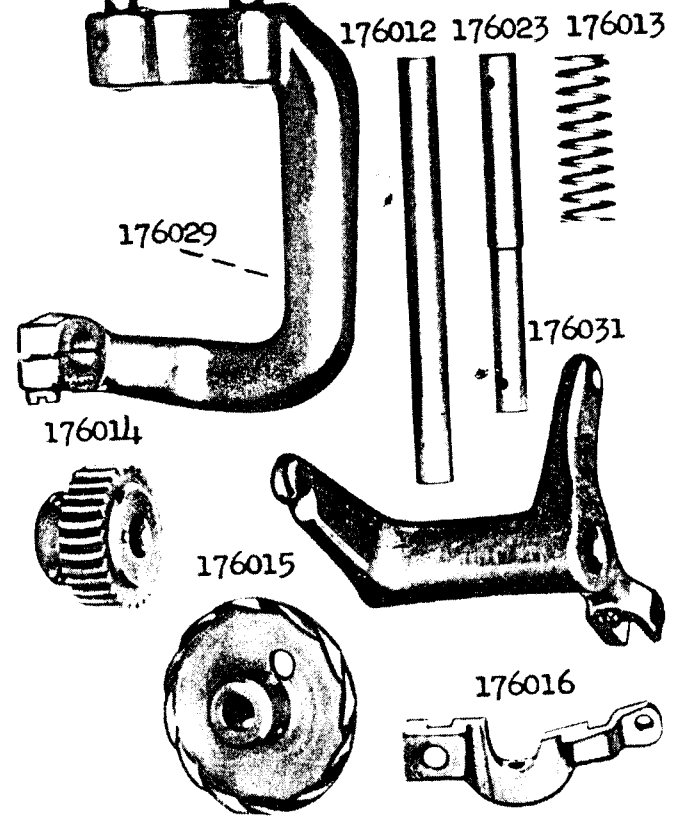


PLATE 22628 - ONE-HALF SIZE

176030 176032 176033



176034 176035



176012 176023 176013

176029

176014

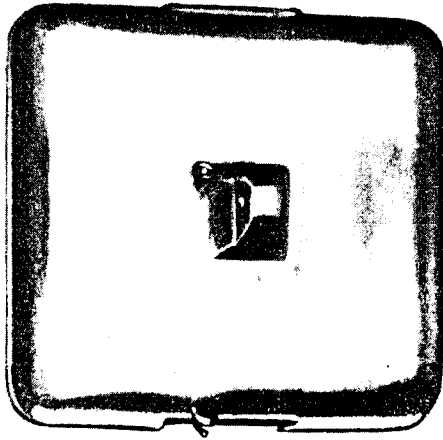
176015

176016

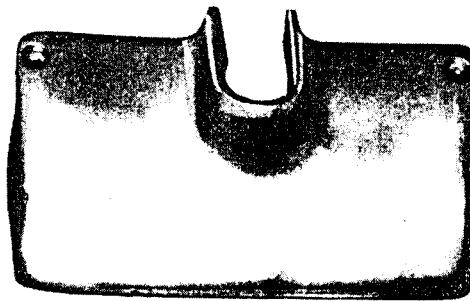
176031

PLATE 22629 - ONE-HALF SIZE

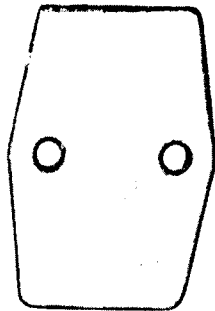
176043



176042



176040



176041



PLATE 22630 - FULL SIZE

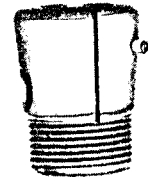
176037



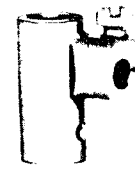
176047



176067



176061



1396



176057



140080



376



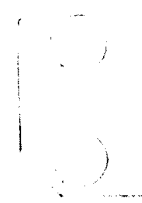
176060



50203



176199



140081



1714



176036 176062 176063

176064



176038



176045



PLATE 22631 - ONE-HALF SIZE

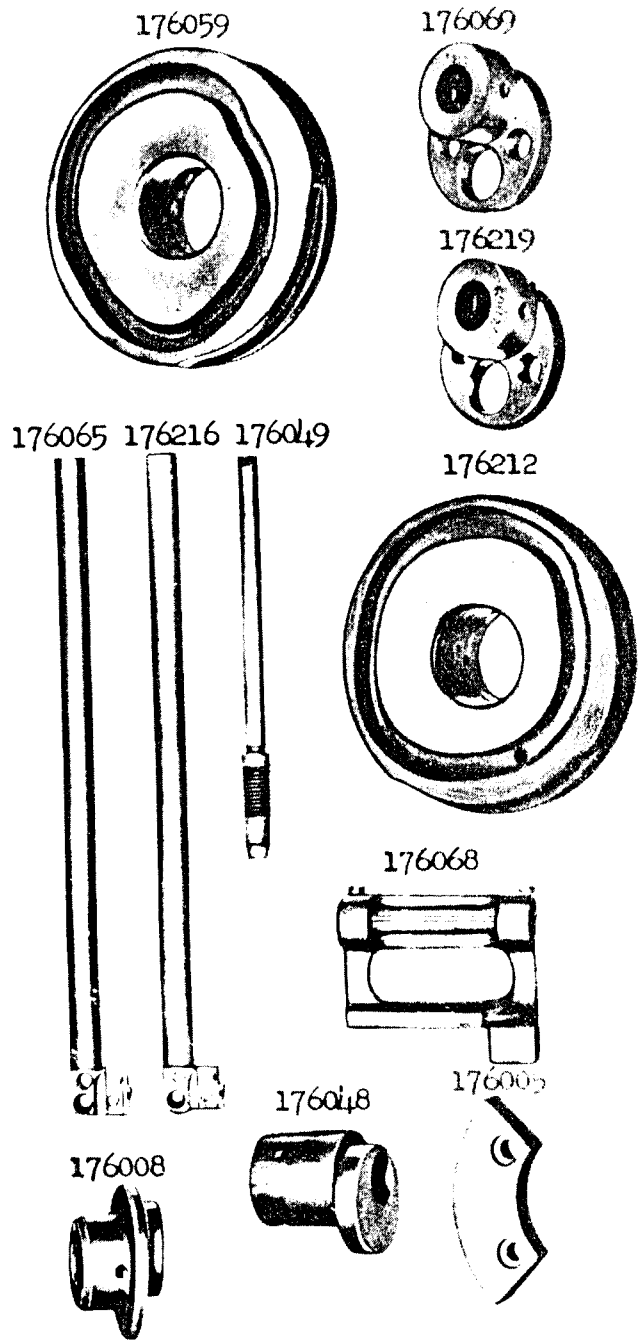


PLATE 22632 - ONE-HALF SIZE

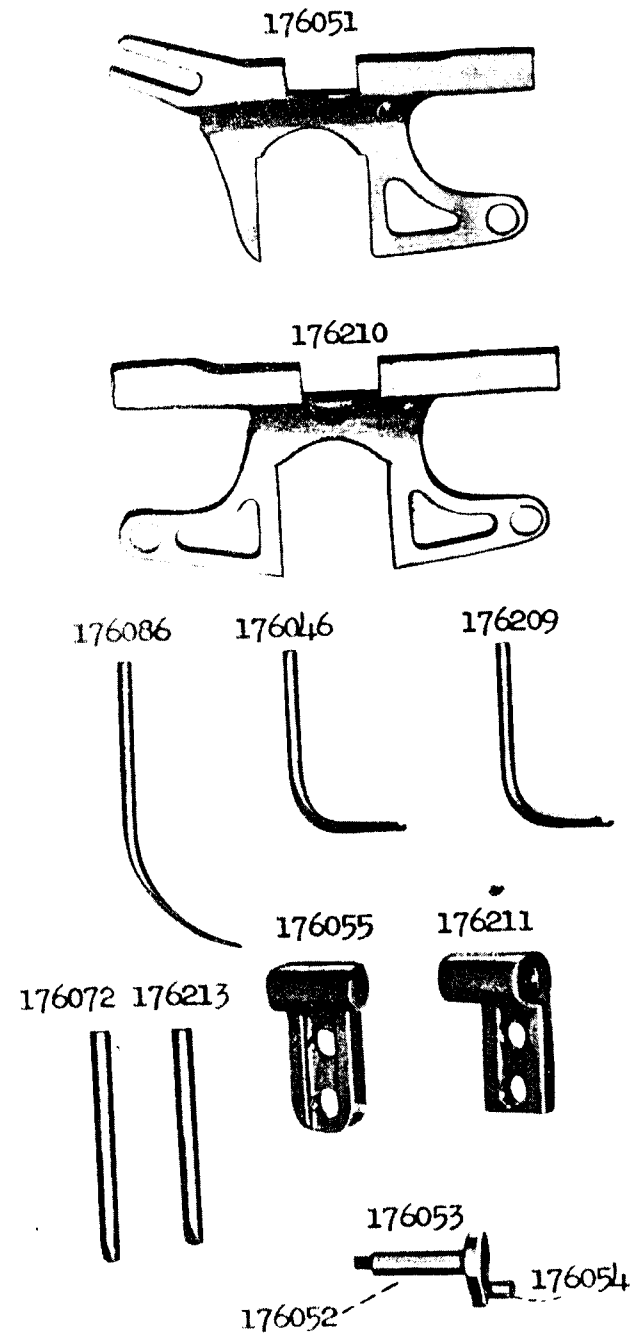


PLATE 22633 - FULL SIZE

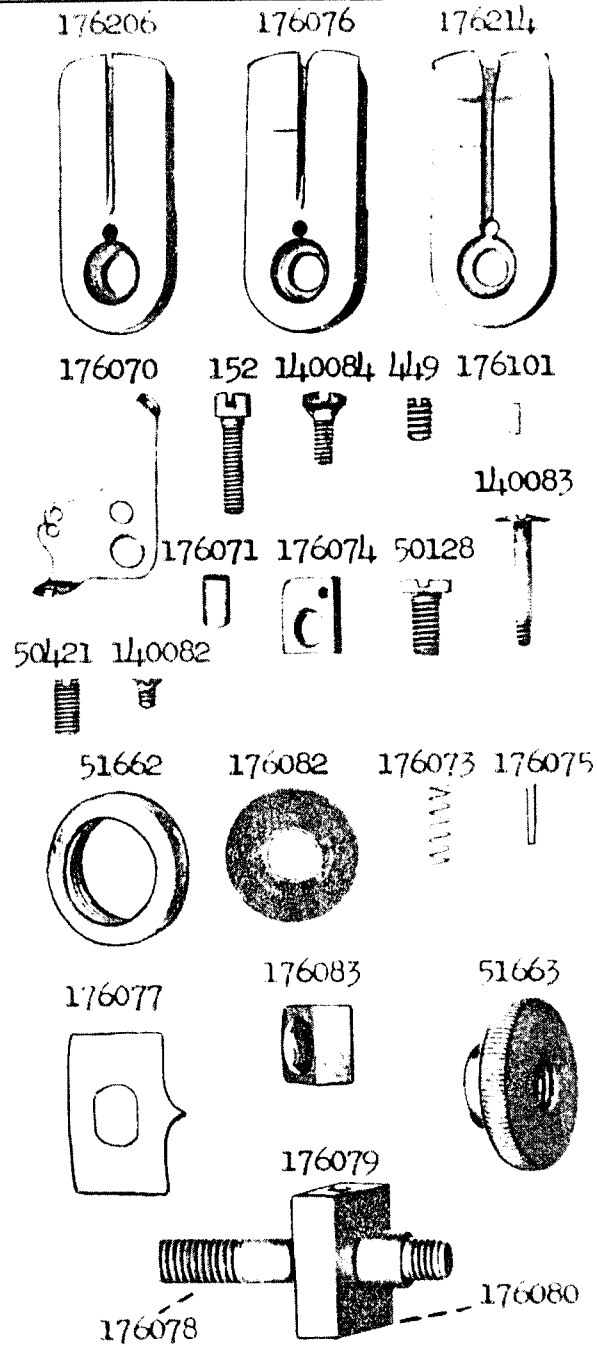


PLATE 22634 - FULL SIZE

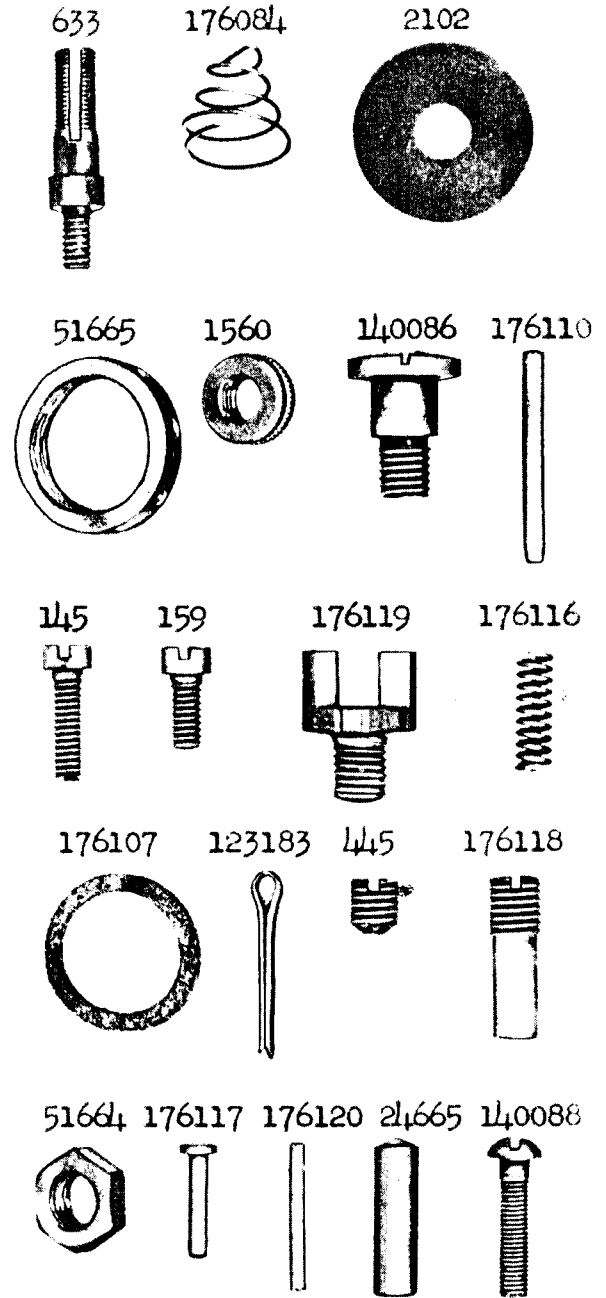


PLATE 22635 - ONE-HALF SIZE

176102 176113 176108 176111

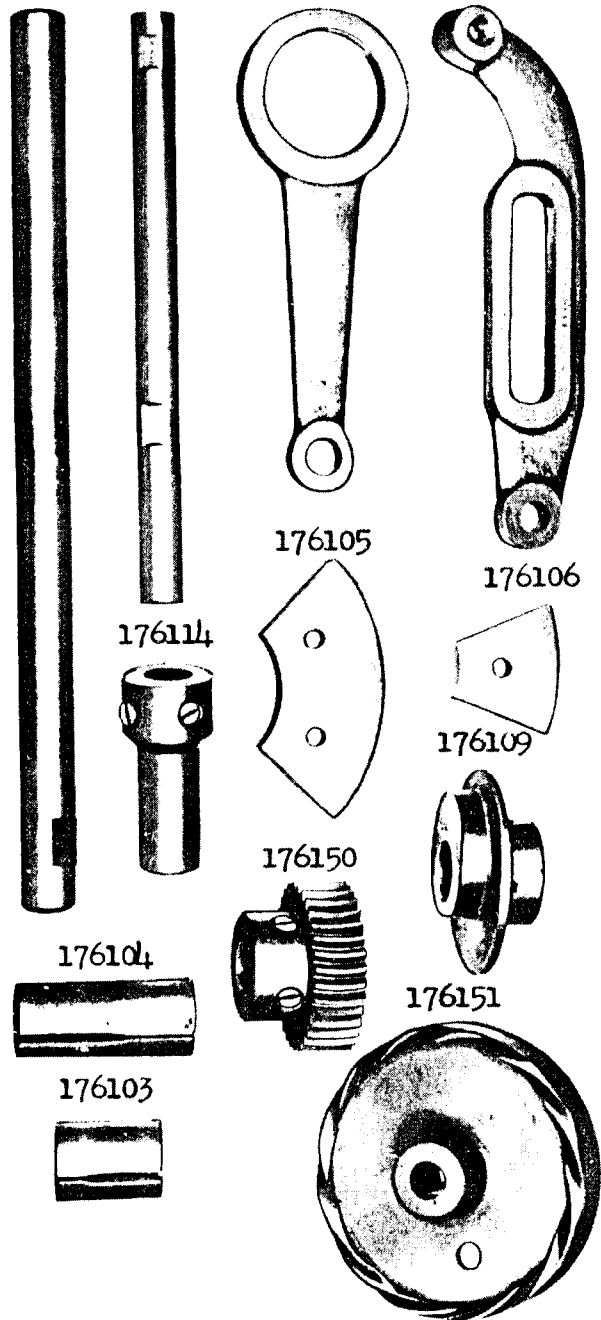


PLATE 22636 - ONE-HALF SIZE

176112 176165

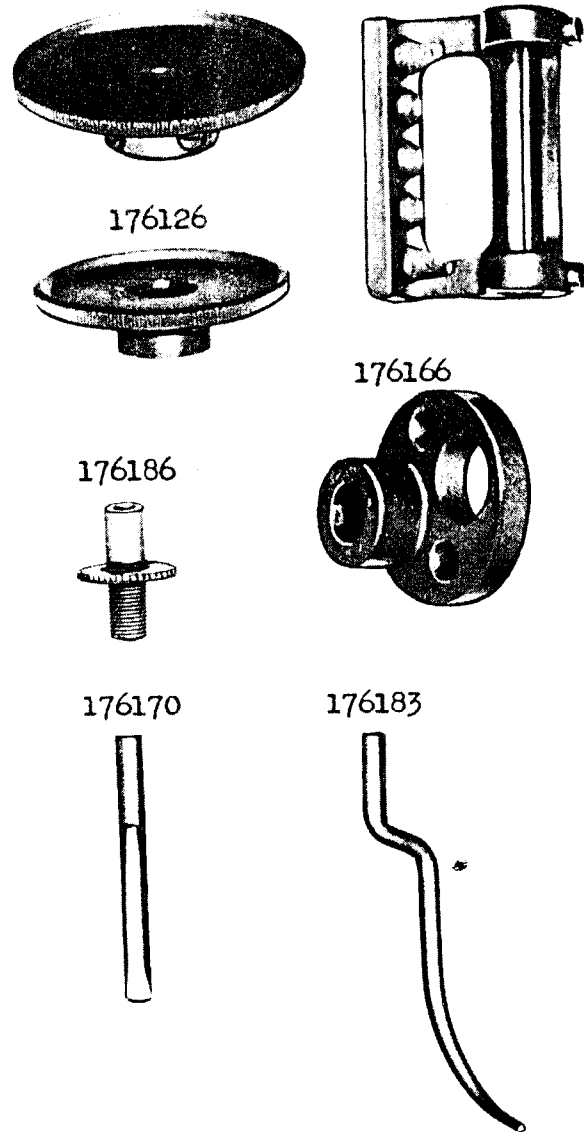
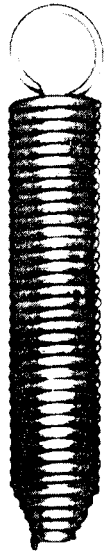


PLATE 22637 - ONE-HALF SIZE

176131 176130 176121 176124



176123



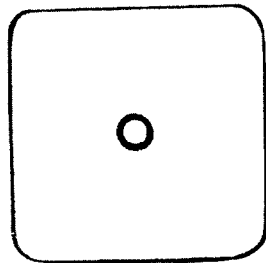
176137



176125



176136



176115



176129

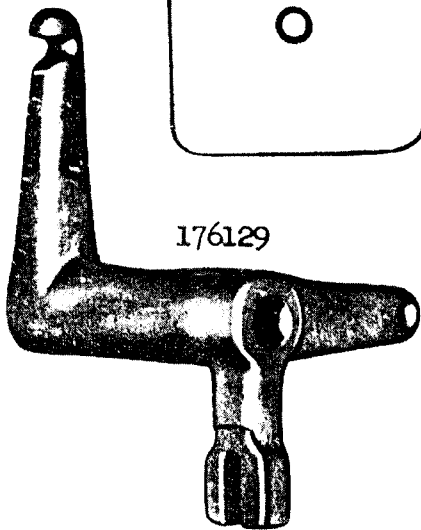
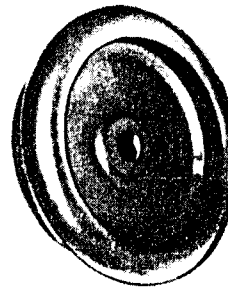
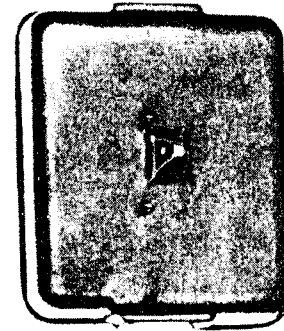


PLATE 22638 - ONE-FOURTH SIZE

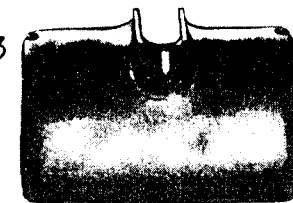
176100



176139



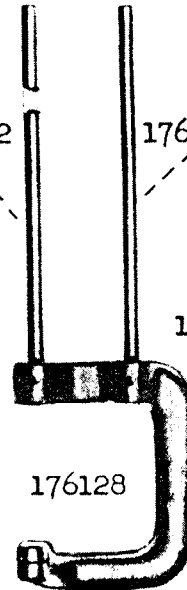
176138



176132

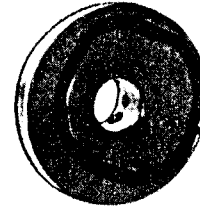
176133

176127



176128

176155



176184

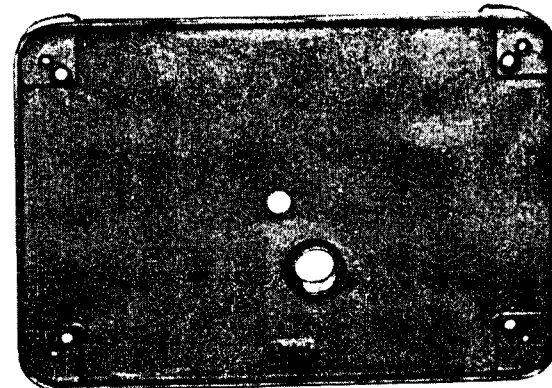


PLATE 22639 - ONE-HALF SIZE

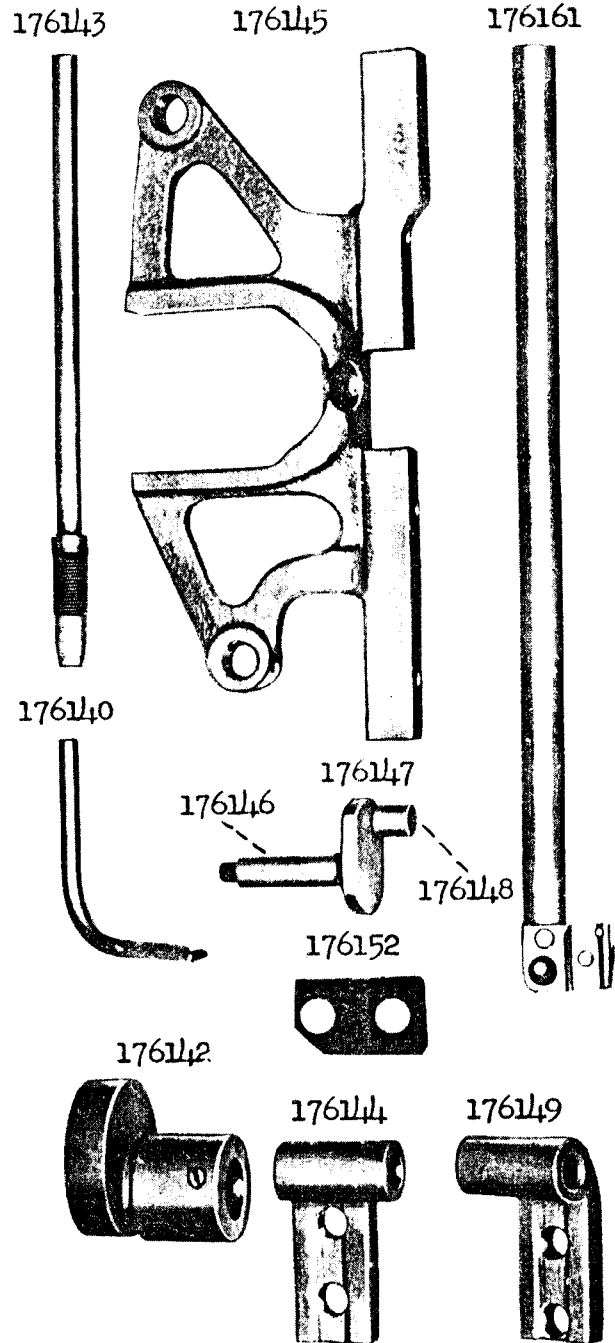


PLATE 22640 - FULL SIZE

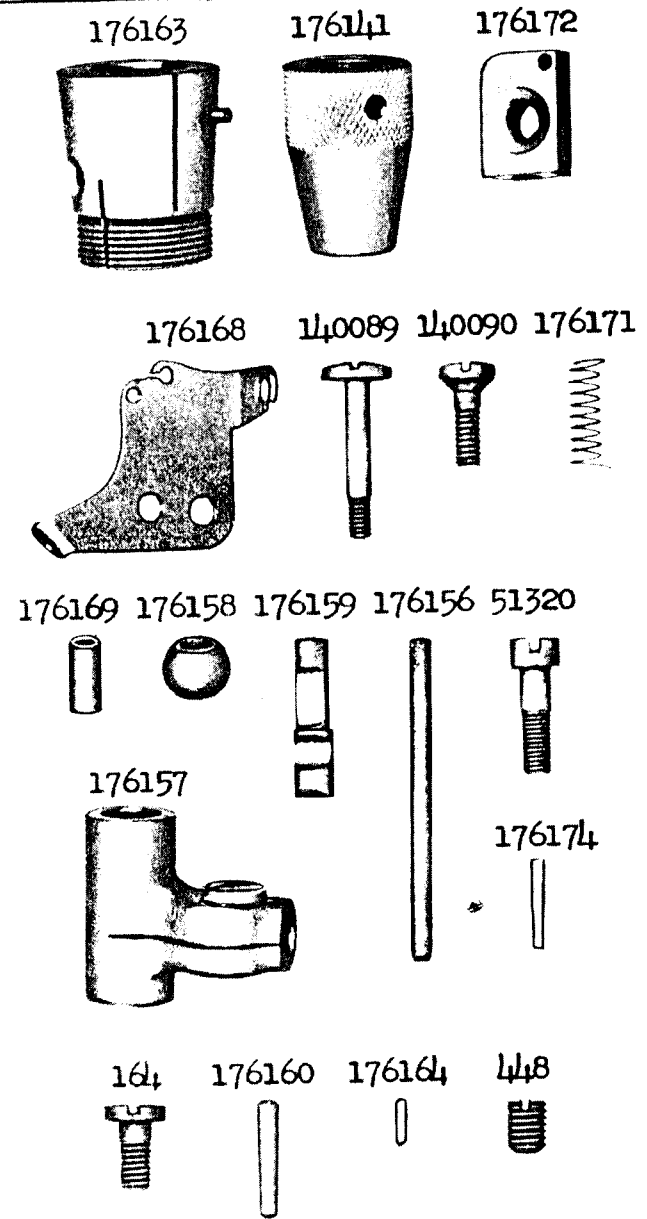
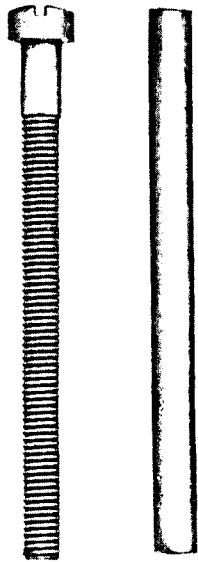
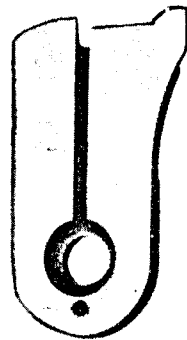


PLATE 22641 - FULL SIZE

140087 175217



176175



122



51285



176180



176088



25029



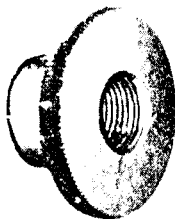
176134



361



51666



176182



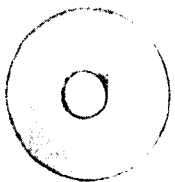
176176



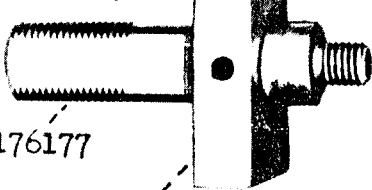
1684



176181



176178

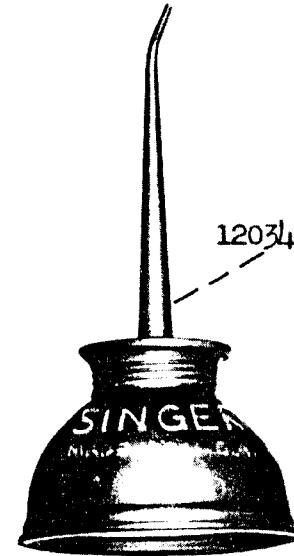


176177

176179

PLATE 22642 - ONE-HALF SIZE

120342



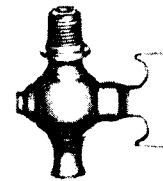
26026



49123



49124



176089



176201



176202



PLATE 22643 - ONE-FOURTH SIZE

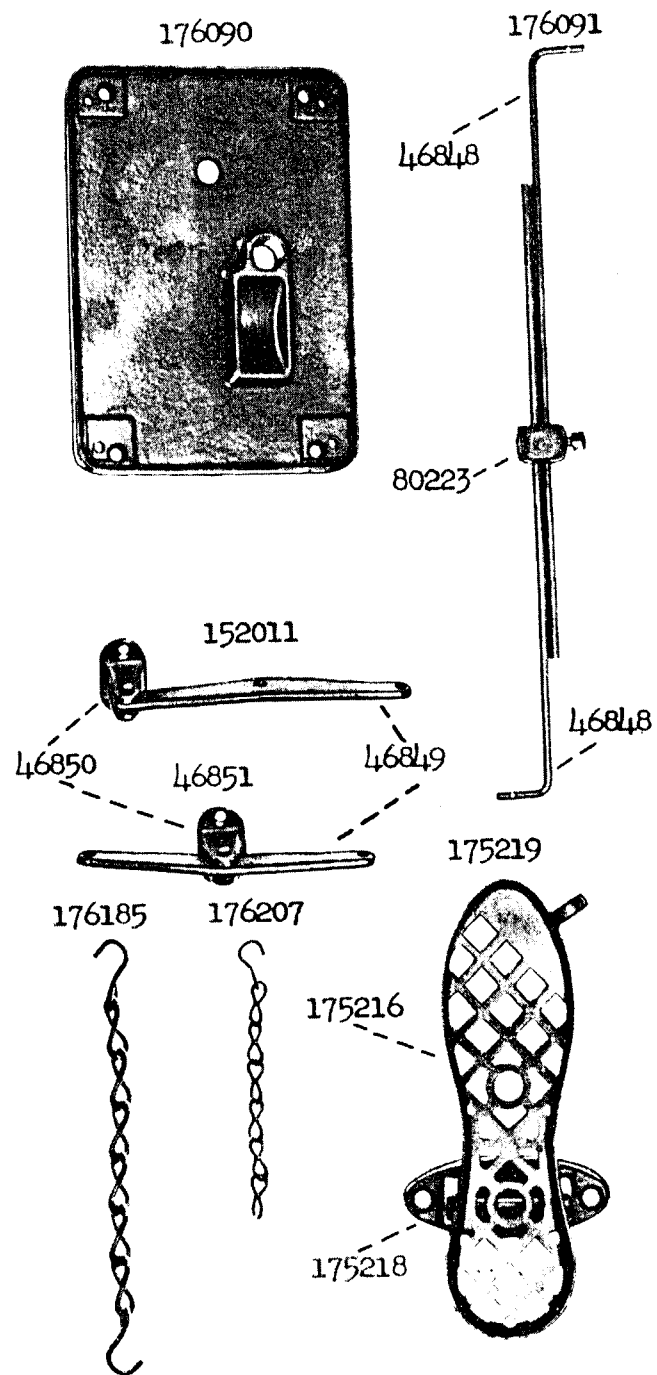


PLATE 22644 - ONE-FOURTH SIZE

