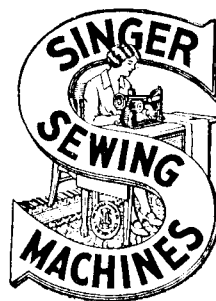


Form 18419
February, 1930
PRINTED IN U. S. A.

LIST OF PARTS



MACHINES

Nos. 147-30 and 147-31

THE SINGER MANUFACTURING COMPANY

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INSTRUCTIONS FOR ORDERING

In ordering from this list, use **ONLY** the part **NUMBER** in the **FIRST** column.

The number stamped on a Sewing Machine part is 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
- H—Blued
- J—Nickel Plated Only
- K—Hardened and Nickel Plated
- L—Brass Plated
- M—Oxidized
- N—Japanned, Dull
- P—Japanned, Bright
- R—Merlized
- 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
- 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 and 50001 to 51500 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 and upward are numbers of Machine Parts.

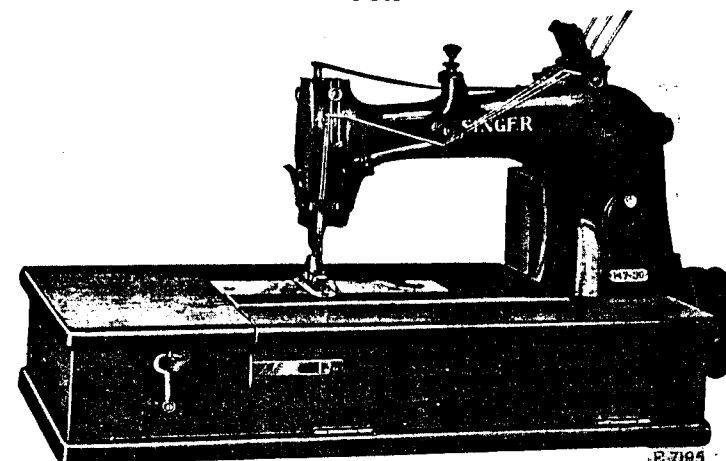
The figures in the second column refer only to the plates, illustrating the parts, and are **NOT TO BE USED** in ordering.

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

When ordering parts which differ as to **Gauge** (the distance between seams) the Gauge, as well as the **Number must be given** on order.

LIST OF PARTS COMPLETE

FOR



MACHINE No. 147-30

FOR GENERAL WORK IN FABRICS WHERE THREE-LINE STITCHING IS DESIRED. THREE NEEDLES AND THREE LOOPERS, FOR LAP SEAM FELLING. GAUGES FROM $\frac{3}{8}$ IN. TO $\frac{1}{16}$ IN. BETWEEN EACH NEEDLE. SPEED UP TO 3500, ACCORDING TO THE MATERIAL BEING STITCHED.

NO.	PLATE	NAME
*54001	—	Arm, upper and lower (solid) with 948d and 54034.....
42366	8901	Arm Oil Pad (braided cotton) for oiling
		Arm Rock Shaft Front Bearing.....
56006	8901	Arm Oil Pad (braided cotton) for oiling
		Arm Rock Shaft Intermediate Bearing.
56003	8985	Arm Oil Tube with 52045, for oiling 54326
52045	8901	" " " Packing (braided cotton)...
54002	8902	" Rock Shaft.....
54079	—	" " " 54002 with 54004, 54005 and 64255.....
64386	8901	Arm Rock Shaft Bushing (back).....
446c	8901	" " " " " Set Screw
64388	8901	" " " " " (intermediate)
423c	8901	" " " " " " Set Screw.....

NO.	PLATE	NAME
52045	8901	Arm Rock Shaft Bushing Oil Pad (braided cotton).....
54004	8901	Arm Rock Shaft Collar with two 453c...
453c	8901	" " " " Set Screw.....
54005	8901	" " " Crank (back) with two 50083c.....
50083c	8901	Arm Rock Shaft Crank (back) Set Screw,
64255	8911	" " " " (front) with 453c
2117	8901	" " " " " Pin.....
453c	8901	" " " " " Set Screw
54105	8901	" " " Flanged Bushing (front)
52045	8901	" " " " " " Oil Pad (braided cotton).....
453c	8901	Arm Rock Shaft Flanged Bushing (front) Set Screw.....
*54006	9880	Arm Rotary Shaft.....

NOTE: When No. 54006 is required for repairs, the Looper Driving Shaft and Feed Lifting Eccentric must be returned to the factory to be adjusted to the new part.

54384	—	Arm Rotary Shaft 54006 with 640b, 54008, 54088, 54113, 54383, 64351 and 64355.
54367	8985	Arm Rotary Shaft Bushing (front).....
52045	8901	" " " " " Oil Pad (braided cotton).....
51131E	9872	Arm Rotary Shaft Bushing (front) Set Screw.....
54007	8902	Arm Rotary Shaft Bushing (intermediate)
54089	—	" " " " " 54007 with 64508 and 64805.....
64508	8902	Arm Rotary Shaft Bushing (intermediate) Oil Pad, long (braided cotton).....
64805	8985	Arm Rotary Shaft Bushing (intermediate) Oil Pad, short (braided cotton).....
422c	8901	Arm Rotary Shaft Bushing (intermediate) Set Screw (long).....
50084c	9872	Arm Rotary Shaft Bushing (intermediate) Set Screw (short).....
54008	8901	Arm Rotary Shaft Collar with three 1259c
1259c	8958	" " " " Set Screw.....
54009	8902	" " " Flanged Bushing.....
54090	—	" " " " " 54009 with 58039 and 64805.....
58039	8902	Arm Rotary Shaft Flanged Bushing Oil Pad, long (braided cotton).....

NO.	PLATE	NAME
64805	8985	Arm Rotary Shaft Flanged Bushing Oil Pad, short (braided cotton).....
159F	8901	Arm Rotary Shaft Flanged Bushing Screw
49013	8904	" " " Front Bearing Oil Pad (braided cotton).....
144b	8901	Arm Rotary Shaft Screw.....
15196	8902	" Side Cover (back).....
286b	8904	" " " " Thumb Screw...
54010	8904	" " " (front).....
286b	8904	" " " " Thumb Screw...
64259	9874	Balance Wheel with two 430c.....
430c	8904	" " Set Screw.....
54011	9880	Cloth Plate.....
54012	8902	" " Slide (left).....
38419	8904	" " " " Spring.....
725J	8904	" " " " " Screw.....
54013	—	Cloth Plate Slide (left) complete, Nos. 38419, 54012, and two 725J.....
54055	9874	Cloth Plate Slide (right) for 54056.....
54057	9874	" " " " " 54058.....
38419	8904	" " " " Spring.....
725J	8904	" " " " " Screw...
54056	—	Cloth Plate Slide (right) complete for 54059, Nos. 38419, 54055 and two 725J
54058	—	Cloth Plate Slide (right) complete for 54060, Nos. 38419, 54057 and two 725J
68192	—	Cloth Plate Slide (right) complete for 68267, Nos. 38419, 68191 and two 725J
54059	—	Cloth Plate complete, for $\frac{3}{8}$ in. and $\frac{7}{16}$ in. gauges, for 68010, Nos. 54011, 54013 and 54056.....
54060	—	Cloth Plate complete, for $\frac{1}{8}$ in. and $\frac{9}{16}$ in. gauges, for 68010, Nos. 54011, 54013 and 54058.....
68267	—	Cloth Plate complete, for $\frac{5}{16}$ in. to $\frac{3}{4}$ in. gauges, for 68073, Nos. 54011, 54013 and 68192.....
1011F	8904	Cloth Plate Screw (left).....
50473F	8904	" " " (right).....
54104	9880	" " Thread Guard.....
1235b	9872	" " " " Screw.....
54017	8902	Crank Connecting Rod with 6575, 54018, 54218, 54897, 57222 and two each 896E and 1057E.....
54088	—	Crank Connecting Rod 54017 with 50069c
50069c	8904	" " " Ball Screw Stud

NO.	PLATE	NAME
761E	8901	Looper Driving Shaft and Feed Lifting Eccentric Bracket Bushing Set Screw..
948D	8958	Looper Driving Shaft and Feed Lifting Eccentric Bracket Screw.....
64315	9870	Looper Driving Shaft and Feed Lifting Eccentric Bracket Oil Hole Plug.....
227D	8958	Looper Driving Shaft and Feed Lifting Eccentric Bracket Oil Hole Screw.....
40326	8961	Looper Driving Shaft and Feed Lifting Eccentric Oil Pad (braided cotton)....
640D	8958	Looper Driving Shaft and Feed Lifting Eccentric Screw.....
54061	9869	Looper Holder with 1120c and 1147c....
704W	8958	" " Screw.....
68083	9871	" Thread Guide.....
1698E	9872	" " " Nut.....
59456	9870	" " " Washer.....
64319	9872	Needle Bar (hollow).....
54493	—	Needle Bar complete, Nos. 64319 and 128215.....
38456	8961	Needle Bar Bushing (lower).....
1133E	8958	" " " Set Screw...
64320	8961	" " " (upper).....
1133E	8958	" " " Set Screw...
54326	8961	" " Connecting Link.....
54329	—	" " " 54326 with 54327 and 54328.....
54327	8961	Needle Bar Connecting Link Hinge Stud
1520J	9872	" " " " " "
		Nut.....
54328	8961	Needle Bar Connecting Stud with 211F and two 187E.....
187E	8958	Needle Bar Connecting Stud Screw.....
128215	9872	" Clamp with three 1498E.....
54494	9872	" Guard, for $\frac{3}{32}$ in. to $\frac{9}{16}$ in. gauges between each needle.....
68247	—	Needle Guard, for $\frac{3}{32}$ in. to $\frac{9}{16}$ in. gauges between each needle.....
NOTE: When ordering No. 54494 or 68247 state gauge of machine for which required.		
54038	8961	Needle Guard Holder.....
176D	8958	" " " Screw.....
217F	8904	" " Screw.....
1498E	9872	" Set Screw.....
54108	—	Oil Tube.....
54109	—	" " Bracket.....

NO.	PLATE	NAME
49092	9870	Oil Tube Packing (felt).....
54110	9870	Oil Tube complete, for oiling Crank Connecting Rod (upper bearing) Nos. 49092, 54108 and 54109.....
64330	9873	Presser Bar with 25303.....
25303	8961	" " Ball, size $\frac{1}{4}$ in.....
64331	8911	" " Bushing (lower).....
1133E	8958	" " " Set Screw...
38456	8961	Presser Bar Bushing (upper).....
1133E	8958	" " " Set Screw...
54039	8985	" " Guide Bracket with 453c, 640W and 1963.....
640W	8958	Presser Bar Guide Bracket Adjusting Screw.....
11173	8985	Presser Bar Guide Bracket Guide.....
447C	8958	" " " " " Set Screw.....
1963	8985	Presser Bar Guide Bracket Roller and Stud.....
453C	8901	Presser Bar Guide Bracket Set Screw....
57257	8911	" " Lifter.....
57258	8911	" " " Hinge Pin.....
447C	8958	" " " " " Set Screw.
1872	8985	" " " Roller and Stud.....
1250C	8911	" " " Stop Screw.....
61047	8911	" " Lifting Bracket with 460C and 1872.....
68208	9873	Presser Bar Lifting Lever.....
61075	8911	" " " Connecting Stud.....
460C	9872	Presser Bar Lifting Lever Connecting Stud Set Screw.....
68184	9873	Presser Bar Lifting Lever Extension.....
161D	8958	" " " " " Screw
802D	8958	" " " " Hinge Screw...
54040	9873	" " Spring (flat).....
38468	9872	" " Stud.....
26276	8911	" Foot Hinge Pin.....
68202	—	" " Plate.....
46087	—	" " Shank.....
68203	9877	Presser Foot (hinged) complete, for $\frac{3}{32}$ in. to $\frac{9}{16}$ in. gauges, Nos. 26276, 46087 and 68202.....
190D	8958	Presser Foot Screw.....
574W	8958	Pressure Regulating Thumb Screw.....
1539W	9872	" " " " Lock Nut.....

NO.	PLATE	NAME
51381	9870	Slack Thread Controller.....
51242	9870	" " " Clamp.....
190b	8958	" " " " Screw....
54500	9870	" " Regulator.....
54042	9870	" " " Holder with 175E and two 50150c.....
175E	8958	Slack Thread Regulator Holder Clamping Screw.....
54043	9870	Slack Thread Regulator Holder Shaft
24292	9870	" " " " "
		Collar with 1019c.....
1019c	8958	Slack Thread Regulator Holder Shaft Collar Set Screw.....
54044	9870	Slack Thread Regulator Holder Shaft Crank (forked) with 1253c.....
1253c	—	Slack Thread Regulator Holder Shaft Crank Set Screw.....
50150c	8958	Slack Thread Regulator Set Screw.....
2102	8964	Tension (under thread) Disc.....
68001	9871	" " " Plate.....
742F	9872	" " " " Screw....
51570c	8964	" " " Regulating Thumb Nut.....
50326c	8964	Tension (under thread) Screw Stud.....
59539	—	" " " " " 50326c with 51570c.....
59534	8964	Tension (under thread) Spring.....
59537	8964	" " " " Bushing (large).....
59538	8964	Tension (under thread) Spring Bushing (small).....
17547	8964	Tension (under thread) Thread Guide...
68002	9874	" (upper thread) Bracket.....
376b	8958	" " " " Screw....
2102	8964	" " " Disc.....
51570c	8964	" " " Regulating Thumb Nut.....
32572	8964	Tension (upper thread) Releasing Disc...
54988	8964	" " " " Pin....
68003	9874	" " " " Shaft
54047	8964	" " " " "
		Crank with 624c.....
54048	8964	Tension (upper thread) Releasing Shaft Crank Link.....
624c	8958	Tension (upper thread) Releasing Shaft Crank Set Screw.....

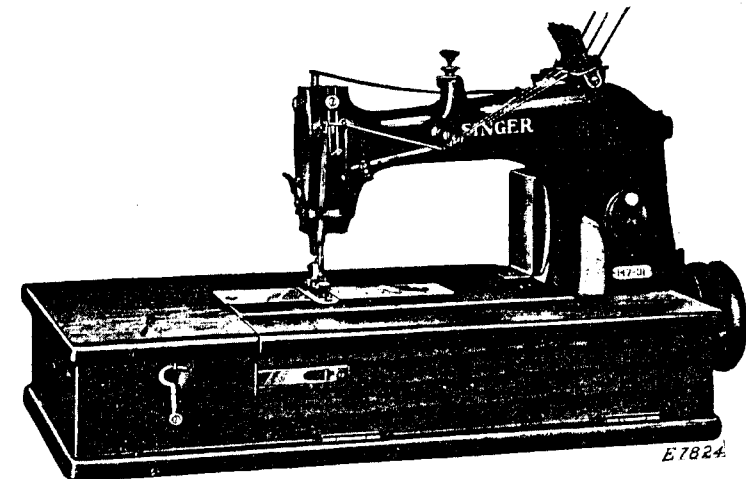
NO.	PLATE	NAME
68261	—	Tension (upper thread) Releasing Shaft Spring.....
316F	8958	Tension (upper thread) Releasing Shaft Stop Screw.....
1517J	9872	Tension (upper thread) Releasing Shaft Stop Screw Nut.....
50326c	8964	Tension (upper thread) Screw Stud.....
59539	—	" " " " " 50326c with 51570c.....
59535	8964	Tension (upper thread) Spring.....
59537	8964	" " " " Bushing (large).....
59538	8964	Tension (upper thread) Spring Bushing (small).....
57076	8964	Tension (upper thread) Thread Guide (double).....
68004	9871	Thread (under) Eyelet (back).....
190b	8958	" " " " Screw....
68005	9871	" " " (front).....
64351	9870	" " Nipper Cam with 465c..
465c	8958	" " " " Set Screw..
38210	9870	" " " Spring (lower)...
38211	9870	" " " " (upper)...
46247	9870	Thread (under) Nipper Spring (upper) Stop.....
176b	8958	Thread (under) Nipper Spring Screw....
38475	9876	" " Take-up with 465c.....
465c	8958	" " " Set Screw.....
68165	9871	" " " Staple.....
54049	9873	" " " " Bracket with 460c.....
965b	9872	Thread (under) Take-up Staple Bracket Screw.....
46041	9871	Thread (under) Take-up Staple Spring
190b	8958	" " " " " "
		Screw.....
38482	9871	Thread (under) Take-up Stripper.....
207b	9872	" " " " Screw..
64355	9871	" " " Thread Guard (brass).....
64356	9871	Thread (under) Take-up Thread Guard Steady Pin.....
460c	9872	Thread (under) Take-up Thread Guard Steady Pin Set Screw.....
54330	9871	Thread (upper) Controller.....
207b	9872	" " " " Screw.....

NO.	PLATE	NAME
68006	9871	Thread (upper) Eyelet.....
176D	8958	" " " Screw.....
68007	9871	" " " Take-up.....
68008	9871	" " " Plate.....
68164	9871	" " " " Spring
1449D	9872	" " " " " Screw.....
68009	—	Thread (upper) Take-up complete, Nos. 1449D, 68007, 68008 and 68164.....
211F	8958	Thread (upper) Take-up Set Screw.....
68010	9875	Throat Plate, for $\frac{1}{2}$ in. to $\frac{3}{4}$ in. gauges, for 54489.....
68073	9875	Throat Plate, for $\frac{1}{2}$ in. to $\frac{3}{4}$ in. gauges, for 68072.....
NOTE: When ordering Nos. 68010 or 68073, state gauge required.		
742F	9872	Throat Plate Screw.....

Genuine Singer 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

LIST OF PARTS COMPLETE FOR



MACHINE No. 147-31

FOR LAP SEAM FELLING ON OVERALLS AND WORK OF A
SIMILAR NATURE. THREE NEEDLES AND THREE
LOOPERS. GAUGES FROM $\frac{1}{8}$ IN. TO $\frac{3}{4}$ IN. BETWEEN
EACH NEEDLE. LENGTH OF NEEDLE BAR STROKE $1\frac{1}{8}$
INCHES.

NO.	PLATE	NAME
*68109	—	Arm, upper and lower (solid) with 948D and 54034.....
42366	8901	Arm Oil Pad (braided cotton) for oiling Arm Rock Shaft Front Bearing.....
56006	8901	Arm Oil Pad (braided cotton) for oiling Arm Rock Shaft Intermediate Bearing.
56003	8985	Arm Oil Tube with 52045, for oiling 54326
52045	8901	" " " Packing (braided cotton)...
54002	8902	" Rock Shaft.....
54079	—	" " " 54002 with 54004, 54005, and 64255.....
64386	8901	Arm Rock Shaft Bushing (back).....
446c	8901	" " " " " Set Screw
64388	8901	" " " " " (intermediate)
423c	8901	" " " " " " Set Screw.....

NO.	PLATE	NAME
52045	8901	Arm Rock Shaft Bushing Oil Pad (braided cotton).....
54004	8901	Arm Rock Shaft Collar with two 453c...
453c	8901	" " " " Set Screw.....
54005	8901	" " " Crank (back) with two 50083c.....
50083c	8901	Arm Rock Shaft Crank (back) Set Screw.
64255	8911	" " " " (front) with 453c
2117	8901	" " " " " Pin.....
453c	8901	" " " " " Set Screw
54105	8901	" " " Flanged Bushing (front)
52045	8901	" " " " " " Oil Pad (braided cotton).....
453c	8901	Arm Rock Shaft Flanged Bushing (front) Set Screw.....
*68110	9880	Arm Rotary Shaft.....

NOTE: When No. 68110 is required for repairs, the Looper Driving Shaft and Feed Lifting Eccentric must be returned to the factory to be adjusted to the new part.

68111	—	Arm Rotary Shaft 68110 with 640b, 54008, 54088, 54113, 54383, 64351 and 64355.
54367	8985	Arm Rotary Shaft Bushing (front).....
52045	8901	" " " " " " Oil Pad (braided cotton).....
51131e	9872	Arm Rotary Shaft Bushing (front) Set Screw.....
54007	8902	Arm Rotary Shaft Bushing (intermediate)
54089	—	" " " " " " 54007 with 64508 and 64805.....
64508	8902	Arm Rotary Shaft Bushing (intermediate) Oil Pad, long (braided cotton).....
64805	8985	Arm Rotary Shaft Bushing (intermediate) Oil Pad, short (braided cotton).....
422c	8901	Arm Rotary Shaft Bushing (intermediate) Set Screw (long).....
50084c	9872	Arm Rotary Shaft Bushing (intermediate) Set Screw (short).....
54008	8901	Arm Rotary Shaft Collar with three 1259c
1259c	8958	" " " " " Set Screw.....
54009	8902	" " " Flanged Bushing.....
54090	—	" " " " " 54009 with 58039 and 64805.....
58039	8902	Arm Rotary Shaft Flanged Bushing Oil Pad, long (braided cotton).....

NO.	PLATE	NAME
64805	8985	Arm Rotary Shaft Flanged Bushing Oil Pad, short (braided cotton).....
159f	8901	Arm Rotary Shaft Flanged Bushing Screw
49013	8904	" " " Front Bearing Oil Pad (braided cotton).....
144d	8901	Arm Rotary Shaft Screw.....
15196	8902	" Side Cover (back).....
286d	8904	" " " " Thumb Screw.....
54010	8904	" " " (front).....
286d	8904	" " " " Thumb Screw.....
64259	9874	Balance Wheel with two 430c.....
430c	8904	" " Set Screw.....
54011	9880	Cloth Plate.....
54012	8902	" " Slide (left).....
38419	8904	" " " " Spring.....
725j	8904	" " " " " Screw.....
54013	—	Cloth Plate Slide (left) complete, Nos. 38419, 54012 and two 725j.....
68191	—	Cloth Plate Slide (right).....
38419	8904	" " " " Spring.....
725j	8904	" " " " " Screw.....
68192	—	Cloth Plate Slide (right) complete, Nos. 38419, 68191 and two 725j.....
68267	—	Cloth Plate complete, for $\frac{1}{8}$ in. to $\frac{3}{16}$ in. gauges, for 68163, Nos. 54011, 54013 and 68192.....
1011f	8904	Cloth Plate Screw (left).....
50473f	8904	" " " (right).....
54104	9880	" " Thread Guard.....
1235c	9872	" " " " Screw.....
54017	8902	Crank Connecting Rod with 6575, 54018, 54218, 54897, 57222 and two each 896e and 1057e.....
54088	—	Crank Connecting Rod 54017 with 50069c
50069c	8904	" " " Ball Screw Stud
1516e	8904	" " " " " " Nut.....
64268	8904	Crank Connecting Rod Ball Screw Stud Nut Washer.....
*57222	—	Crank Connecting Rod Cap (lower).....
896e	8904	" " " " " Screw
*54018	—	" " " " " (upper).....
1057e	8904	" " " " " Screw
54897	8904	" " " Oil Cup.....
51218	8904	" " " " Pad (braided cotton).....
6575	8904	Crank Connecting Rod Oil Pad Stop Pin

NO.	PLATE	NAME
68083	9871	Looper Thread Guide.....
1698E	9872	" " " Nut.....
59456	9870	" " " Washer.....
64319	9872	Needle Bar (hollow).....
54493	—	Needle Bar complete, Nos. 64319 and 128215.....
38456	8961	Needle Bar Bushing (lower).....
1133E	8958	" " " Set Screw...
64320	8961	" " " (upper).....
1133E	8958	" " " Set Screw...
54326	8961	" " Connecting Link.....
54329	—	" " " 54326 with 54327 and 54328.....
54327	8961	Needle Bar Connecting Link Hinge Stud
1520J	9872	" " " " " "
		Nut.....
54328	8961	Needle Bar Connecting Stud with 211E and two 187E.....
187E	8958	Needle Bar Connecting Stud Screw.....
128215	9872	" Clamp with three 1498E.....
54494	9872	" Guard, for $\frac{3}{32}$ in. to $\frac{9}{64}$ in. gauges between each needle.....
68247	—	Needle Guard, for $\frac{3}{32}$ in. to $\frac{3}{16}$ in. gauges between each needle.....

NOTE: When ordering No. 54494 or 68247, state gauge of machine for which required.

54038	8961	Needle Guard Holder.....
176D	8958	" " " Screw.....
217F	8904	" " " Screw.....
1498F	9872	" Set Screw.....
54108	—	Oil Tube.....
54109	—	" " Bracket.....
49092	9870	" " Packing (felt).....
54110	9870	Oil Tube complete, for oiling Crank Connecting Rod (upper bearing), Nos. 49092, 54108 and 54109.....
64330	9873	Presser Bar with 25303.....
25303	8961	" " Ball, size $\frac{1}{4}$ in.....
64331	8911	" " Bushing (lower).....
1133E	8958	" " " Set Screw...
38456	8961	" " " (upper).....
1133E	8958	" " " Set Screw...
54039	8985	" " Guide Bracket with 453c, 640w and 1963.....
640w	8958	Presser Bar Guide Bracket Adjusting Screw.....

NO.	PLATE	NAME
11173	8985	Presser Bar Guide Bracket Guide.....
447C	8958	" " " " " Set Screw
1963	8985	" " " " Roller and Stud
453C	8901	" " " " Set Screw.....
57257	8911	" " Lifter.....
57258	8911	" " " Hinge Pin.....
447C	8958	" " " " Set Screw...
1872	8985	" " " Roller and Stud.....
1250C	8911	" " " Stop Screw.....
61047	8911	" " Lifting Bracket with 460C and 1872.....
68208	9873	Presser Bar Lifting Lever.....
61075	8911	" " " " Connecting Stud
460C	9872	" " " " " "
		Set Screw.....
68184	9873	Presser Bar Lifting Lever Extension.....
161D	8958	" " " " " Screw
802D	8958	" " " " Hinge Screw...
54040	9873	" " Spring (flat).....
38468	9872	" " " Stud.....
54495	—	" Foot Leveling Plate.....
11184	9877	" " " " Hinge Pin...
68086	—	" " Needle Plate.....
68160	9877	" " " " Spring (left)...
68161	9877	" " " " " (right)...
665W	9877	" " " " " Screw...
68087	—	" " Plate.....
54498	—	" " Shank.....
51065C	9877	" " " Screw.....
68088	9877	Presser Foot (hinged) complete, for $\frac{3}{4}$ in. to $\frac{3}{16}$ in. gauges, Nos. 11184, 54495, 54498, 68086, 68087, 68160, 68161 and two each 665W and 51065C.....
190D	8958	Presser Foot Screw.....
574W	8958	Pressure Regulating Thumb Screw.....
1539W	9872	" " " " Lock Nut.....
54381	9870	Slack Thread Controller.....
54242	9870	" " " Clamp.....
190D	8958	" " " " Screw....
54500	9870	" " Regulator.....
54042	9870	" " " Holder with 175E and two 50150C.....
175E	8958	Slack Thread Regulator Holder Clamping Screw.....

NO.	PLATE	NAME
54043	9870	Slack Thread Regulator Holder Shaft
24292	9870	“ “ “ “ “
		Collar with 1019c.....
1019c	8958	Slack Thread Regulator Holder Shaft
		Collar Set Screw.....
54044	9870	Slack Thread Regulator Holder Crank
		(forked) with 1253c.....
1253c	—	Slack Thread Regulator Holder Crank
		Set Screw.....
50150c	8958	Slack Thread Regulator Set Screw.....
2102	8964	Tension (under thread) Disc.....
68001	9871	“ “ “ “ Plate.....
742F	9872	“ “ “ “ Screw.....
51570c	8964	“ “ “ “ Regulating Thumb
		Nut.....
50326c	8964	Tension (under thread) Screw Stud.....
59539	—	“ “ “ “ “ 50326c
		with 51570c.....
59534	8964	Tension (under thread) Spring.....
59537	8964	“ “ “ “ Bushing
		(large).....
59538	8964	Tension (under thread) Spring Bushing
		(small).....
57076	8964	Tension (upper thread) Thread Guide
		(double).....
68004	9871	Thread (under) Eyelet (back).....
190b	8958	“ “ “ “ Screw.....
68005	9871	“ “ “ “ (front).....
64351	9870	“ “ “ “ Nipper Cam with 465c..
465c	8958	“ “ “ “ Set Screw...
38210	9870	“ “ “ “ Spring (lower)...
38211	9870	“ “ “ “ “ (upper)
46247	9870	“ “ “ “ “ “
		Stop.....
176b	8958	Thread (under) Nipper Spring Screw....
38475	9876	“ “ “ “ Take-up with 465c.....
465c	8958	“ “ “ “ Set Screw.....
68165	9871	“ “ “ “ Staple.....
54049	9873	“ “ “ “ “ Bracket
		with 460c.....
965b	9872	Thread (under) Take-up Staple Bracket
		Screw.....
46041	9871	Thread (under) Take-up Staple Spring
190b	8958	“ “ “ “ “ “
		Screw.....
38482	9871	Thread (under) Take-up Stripper.....
207b	9872	“ “ “ “ “ Screw...
64355	9871	“ “ “ “ “ Thread Guard
		(brass).....
64356	9871	Thread (under) Take-up Thread Guard
		Steady Pin.....
460c	9872	Thread (under) Take-up Thread Guard
		Steady Pin Set Screw.....
54330	9871	Thread (upper) Controller.....
207b	9872	“ “ “ “ “ Screw.....
68006	9871	“ “ “ “ “ Eyelet.....
176b	8958	“ “ “ “ “ Screw.....
68007	9871	“ “ “ “ “ Take-up.....
68008	9871	“ “ “ “ “ Plate.....
68164	9871	“ “ “ “ “ “ Spring
1449b	9872	“ “ “ “ “ “
		Screw.....

NO.	PLATE	NAME
50326c	8964	Tension (upper thread) Screw Stud.....
59539	—	“ “ “ “ “ 50326c
		with 51570c.....
59535	8964	Tension (upper thread) Spring.....
59537	8964	“ “ “ “ “ Bushing
		(large).....
59538	8964	Tension (upper thread) Spring Bushing
		(small).....
57076	8964	Tension (upper thread) Thread Guide
		(double).....
68004	9871	Thread (under) Eyelet (back).....
190b	8958	“ “ “ “ “ Screw.....
68005	9871	“ “ “ “ “ (front).....
64351	9870	“ “ “ “ “ Nipper Cam with 465c..
465c	8958	“ “ “ “ “ Set Screw...
38210	9870	“ “ “ “ “ Spring (lower)...
38211	9870	“ “ “ “ “ “ (upper)
46247	9870	“ “ “ “ “ “
		Stop.....
176b	8958	Thread (under) Nipper Spring Screw....
38475	9876	“ “ “ “ “ Take-up with 465c.....
465c	8958	“ “ “ “ “ Set Screw.....
68165	9871	“ “ “ “ “ Staple.....
54049	9873	“ “ “ “ “ “ Bracket
		with 460c.....
965b	9872	Thread (under) Take-up Staple Bracket
		Screw.....
46041	9871	Thread (under) Take-up Staple Spring
190b	8958	“ “ “ “ “ “
		Screw.....
38482	9871	Thread (under) Take-up Stripper.....
207b	9872	“ “ “ “ “ “ Screw...
64355	9871	“ “ “ “ “ Thread Guard
		(brass).....
64356	9871	Thread (under) Take-up Thread Guard
		Steady Pin.....
460c	9872	Thread (under) Take-up Thread Guard
		Steady Pin Set Screw.....
54330	9871	Thread (upper) Controller.....
207b	9872	“ “ “ “ “ “ Screw.....
68006	9871	“ “ “ “ “ Eyelet.....
176b	8958	“ “ “ “ “ “ Screw.....
68007	9871	“ “ “ “ “ Take-up.....
68008	9871	“ “ “ “ “ Plate.....
68164	9871	“ “ “ “ “ “ Spring
1449b	9872	“ “ “ “ “ “
		Screw.....

NO.	PLATE	NAME
68009	----	Thread (upper) Take-up complete, Nos. 1449b, 68007, 68008 and 68164.....
211F	8958	Thread (upper) Take-up Set Screw.....
86163	9876	Throat Plate, for $\frac{1}{8}$ in. to $\frac{3}{16}$ in. gauges, for 68162.....

NOTE: When ordering 68163, state gauge required.

742F	9872	Throat Plate Screw.....
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ACCESSORIES

NO.	PLATE	NAME
120344	8941	Oiler (copper plated) with 120345.....
120345	8941	" Spout, 5 in. long.....
26026	8941	Screw Driver (large).....
26485	8941	" " (small).....
38487	8941	Threading Wire.....
120341	8941	Tweezers (curved).....
8908	8941	Wrench for 1520.....
19221	8941	" " 1516.....
4822	8941	" " 1547.....

BELT GUARD

NO.	PLATE	NAME
68222	9879	Belt Guard with two wood screws 1 in. No. 12.....

BENCH STAND

NO.	PLATE	NAME
79611	---	Bench Stand with 5604, 9370, two 41538, three wood screws $1\frac{1}{4}$ in. No. 14, four 60656 and sixteen wood screws $\frac{5}{8}$ in. No. 7.....
41538	---	Flush Bolt with Plate complete, Nos. 126247, 126248 and four brass wood screws $\frac{5}{8}$ in. No. 4.....
126247	8952	Flush Bolt.....
126248	8952	" " Plate.....
60656	8952	Hinge.....
9370	8952	Slide Spring.....
5604	8952	" " Pin.....

FITTINGS FOR OVERALL WORK

FOR 147-30 MACHINE

NO.	PLATE	NAME
54489	9875	Feed Dog, 22 teeth (14 teeth to the inch) for 68010.....
68072	9875	Feed Dog, 14 teeth (19 teeth to the inch) for 68073.....
120524	9878	Lap Seam Feller on Shank.....
54495	----	Presser Foot Leveling Plate.....
11184	9877	" " " " Hinge Pin...
54496	----	" " Needle Plate for 54499.....
68086	----	" " " " 68088.....
68160	9877	" " " " Spring (left)...
68161	9877	" " " " " (right)...
665w	9877	" " " " " Screw..
54497	----	" " Plate for 54499.....
68087	----	" " " " 68088.....
54498	----	" " Shank.....
51065c	9877	" " " Hinge Screw.....
54499	9877	Presser Foot (hinged) complete, for $\frac{3}{32}$ in. to $\frac{1}{8}$ in. gauges, Nos. 11184, 54495 to 54498, 68160, 68161 and two each 665w and 51065c.....
68088	9877	Presser Foot (hinged) complete, for $\frac{9}{16}$ in. to $\frac{1}{2}$ in. gauges, Nos. 11184, 54495, 54498, 68086, 68087, 68160, 68161 and two each 665w and 51065c.....
68010	9875	Throat Plate, for $\frac{3}{32}$ in. to $\frac{9}{16}$ in. gauges, for 54489.....
68073	9875	Throat Plate, for $\frac{5}{32}$ in. to $\frac{3}{16}$ in. gauges, for 68072.....

FITTINGS FOR HEAVY OVERALL WORK

FOR 147-31 MACHINE

NO.	PLATE	NAME
68162	9876	Feed Dog, 15 teeth (10 teeth to the inch) for 68163.....
120524	9878	Lap Seam Feller on Shank.....
120707	9878	" " " " " to allow for taking work out of folder and finishing pocket seams.....

NO.	PLATE	NAME
54495	—	Presser Foot Leveling Plate.....
11184	9877	“ “ “ “ Hinge Pin...
54496	—	“ “ Needle Plate for 54499.....
68086	—	“ “ “ “ “ 68088.....
68160	9877	“ “ “ “ Spring (left)...
68161	9877	“ “ “ “ “ (right)...
665w	9877	“ “ “ “ “ Screw...
54497	—	“ “ Plate for 54499.....
68087	—	“ “ “ “ “ 68088.....
54498	—	“ “ Shank.....
51065c	9877	“ “ “ Hinge Screw.....
54499	9877	Presser Foot (hinged) complete, for $\frac{3}{8}$ in. to $\frac{1}{8}$ in. gauges, Nos. 11184, 54495 to 54498, 68160, 68161 and two each 665w and 51065c.....
68088	9877	Presser Foot (hinged) complete, for $\frac{9}{16}$ in. to $\frac{3}{8}$ in. gauges, Nos. 11184, 54495, 54498, 68086, 68087, 68160, 68161 and two each 665w and 51065c.....
68163	9876	Throat Plate, for $\frac{1}{8}$ in. to $\frac{3}{8}$ in. gauges...

FITTINGS FOR SHIRT WORK

FOR 147-30 MACHINE

NO.	PLATE	NAME
54489	9875	Feed Dog, 22 teeth (14 teeth to the inch) for 68010.....
120524	9878	Lap Seam Feller on Shank.....
26276	9877	Presser Foot Hinge Pin.....
68026	—	“ “ Plate for 68027.....
68202	—	“ “ “ “ “ 68203.....
46087	—	“ “ Shank.....
68027	9877	Presser Foot (hinged) with guide on bot- tom, complete, for $\frac{3}{8}$ in. to $\frac{9}{16}$ in. gauges, Nos. 26276, 46087 and 68026.....
68203	9877	Presser Foot (hinged) plain bottom, com- plete, for $\frac{3}{8}$ in. to $\frac{9}{16}$ in. gauges, Nos. 26276, 46087 and 68202.....
26276	9877	Presser Foot Hinge Pin.....
120753	—	“ “ Plate with Edge Folder.....
46087	—	“ “ Shank.....
120754	9877	Presser Foot (hinged) with Edge Folder complete, for yoking, for $\frac{3}{8}$ in. to $\frac{3}{16}$ in. gauges, Nos. 26276, 46087 and 120753
68010	9875	Throat Plate, for $\frac{3}{8}$ in. to $\frac{9}{16}$ in. gauges, for 54489.....

FOOT LIFTER PARTS

NO.	PLATE	NAME
6439	—	Chain, 36 in. to 45 in., with 56864 and 56865.....

NOTE: When ordering No. 6439, state
length required.

4879	8941	Chain Connecting Link.....
56864	8941	“ Hook (large).....
56865	8985	“ “ (small).....
126249	8980	Treadle.....
4882	8941	“ Shaft.....
126250	8941	“ Spring.....
126251	8980	“ Stand.....
126252	8980	Treadle complete, Nos. 4882, 126249 to 126251 and two wood screws 1 in. No. 16

KNEE LIFTER PARTS

NO.	PLATE	NAME
37563	—	Chain, length 15 in., with 56864 and 56865
56864	8941	“ Hook (large).....
56865	8985	“ “ (small).....
2763	8980	Rock Shaft.....
12242	8980	“ “ Hanger with two wood screws 1 in. No. 10.....
6335	8980	Rock Shaft Knee Arm.....
6336	—	Rock Shaft Knee Arm complete, Nos. 2766, 2767 and 6335.....
2766	8980	Rock Shaft Knee Arm Hub with 356c...
356c	8985	“ “ “ “ “ Set Screw...
2767	8980	“ “ “ Plate with 356c.....
356c	8985	“ “ “ “ “ Set Screw.....
6337	8980	“ “ Lifting Bracket with two 356c
7125	8980	“ “ “ “ “ Hook.....
356c	8985	“ “ “ “ “ “ Set Screw.....
356c	8985	Rock Shaft Lifting Bracket Set Screw...
2770	8980	“ “ Stop Dog with 356c.....
356c	8985	“ “ “ “ “ Set Screw.....
23767	8980	Rock Shaft complete, Nos. 2763, 2770, 6336, 6337, 7125 and two 12242.....

LAP SEAM FELLERS

NO.	PLATE	NAME
120524	9878	Lap Seam Feller on Shank.....
120707	9878	“ “ “ “ for heavy over- all work, to allow for taking work out of folder and finishing pocket seams...

MACHINE BASE

NO.	PLATE	NAME
68223	9879	Machine Base.....
51072E	9872	“ “ Bolt with 51581E.....
51581E	9872	“ “ “ Nut.....
6055	9872	“ “ “ “ Washer.....
49123	8996	“ “ Oil Pipe.....
60884	8985	“ “ “ “ Plug.....
57285	8996	“ Cushion (felt).....
948E	8958	“ Screw, to fasten machine to base
68224	—	Machine Base complete, Nos. 49123, 60884, 68223, three each 6055, 51072E and four each 948E and 57285.....

THREAD UNWINDER

FOR SIX SPOOLS

NO.	PLATE	NAME
225395	8997	Spool Rest, for two spools, with 201018c.
225388	8997	“ “ Rod.....
200383c	8985	“ “ “ Set Screw.....
201018c	8985	“ “ Set Screw.....
202490	8997	“ Stand with 200383c.....
225391	8997	Thread Guide.....
201696J	9872	“ “ Lock Nut.....
225392	8997	“ “ Rod with 208E and 225393
208E	8985	“ “ “ Screw.....
225393	9872	“ “ “ Washer.....
225378	8997	Thread Unwinder complete, Nos. 201696J, 202490, 225388, 225392, three each 225395, six 225391 and three wood screws $\frac{7}{8}$ in. No. 12.....
27739	8996	Thread Cone (wood) for large cones....
225390	8996	“ “ Holder, for inverted cones..

NOTE: Nos. 27739 and 225390 are used with,
but not included in 225378.

OBSOLETE PARTS

NO.	PLATE	NAME
54356	8980	Belt Guard with 1192c.....
27347	8985	“ “ Hinge Pin.....
1192c	8985	“ “ “ “ Set Screw.....
1192c	8985	“ “ Set Screw.....
64362	8996	Presser Bar Lifting Lever.....
54103	9873	“ “ “ “ Extension.....
54357	8980	Machine Base with 1192c.....
54358	—	Machine Base with Belt Guard complete, Nos. 27347, 49123, 54356, 54357, 60884, three each 6055, 51072E and four each 948E and 57285.....
54990	8964	Tension (upper thread) Releasing Shaft Spring.....

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NUMERICAL LIST OF PARTS

FOR

MACHINES

Nos. 147-30 and 147-31

NUMERICAL LIST OF PARTS

NO. PLATE	NAME
144D 8901	Arm Rotary Shaft Screw.....
157W 8904	Feed Dog Screw.....
159F 8901	Arm Rotary Shaft Flanged Bushing Screw
161D 8958	Presser Bar Lifting Lever Extension Screw
171D 8958	Looper Carrier Adjusting Screw for 54027
175E 8958	“ “ Driver Cap Screw for 54230
175E 8958	Slack Thread Regulator Holder Clamping Screw for 54042.....
176D 8958	Needle Guard Holder Screw.....
176D 8958	Thread (under) Nipper Spring Screw....
176D 8958	“ (upper) Eyelet Screw.....
187E 8958	Needle Bar Connecting Stud Screw for 54328.....
190D 8958	Presser Foot Screw.....
190D 8958	Thread (under) Eyelet (back) Screw....
190D 8958	“ “ Take-up Staple Spring Screw.....
190D 8958	Slack Thread Controller Clamp Screw....
207D 9872	Thread (under) Take-up Stripper Screw..
207D 9872	Thread (upper) Controller Screw.....
208E 8985	“ Unwinder Thread Guide Rod Screw for 225392.....
211F 8958	Thread (upper) Take-up Set Screw for 54328.....
217D 8904	Feed Eccentric Clamping Washer Screw for 54025.....
217D 8904	Needle Guard Screw.....
227D 8958	Looper Driving Shaft and Feed Lifting Eccentric Bracket Oil Hole Screw for 54368.....
229D 8958	Looper (front) Screw (left) for 68015....
236D 9872	Face Plate Thread Guard Screw.....
286D 8904	Arm Side Cover (back) Thumb Screw....
286D 8904	“ “ “ (front) Thumb Screw....
286D 8904	Face Plate Thumb Screw.....
316F 8958	Tension (upper thread) Releasing Shaft Stop Screw.....
356C 8985	Rock Shaft Knee Arm Hub Set Screw for 2766.....
356C 8985	Rock Shaft Knee Plate Set Screw for 2767
356C 8985	“ “ Lifting Bracket Hook Set Screw for 6337.....

NO. PLATE	NAME
356c 8985	Rock Shaft Lifting Bracket Set Screw for 6337.....
356c 8985	Rock Shaft Stop Dog Set Screw for 2770.....
376d 8958	Tension (upper thread) Bracket Screw....
422c 8901	Arm Rotary Shaft Bushing (intermediate) Set Screw (long).....
423c 8901	Arm Rock Shaft Bushing (intermediate) Set Screw.....
430c 8904	Balance Wheel Set Screw for 64259.....
446c 8901	Arm Rock Shaft Bushing (back) Set Screw.....
446c 8901	Looper Carrier Connection Shaft Bushing Set Screw.....
447c 8958	Presser Bar Guide Bracket Guide Set Screw.....
447c 8958	Presser Bar Lifter Hinge Pin Set Screw...
453c 8901	Arm Rock Shaft Collar Set Screw for 51001.....
453c 8901	Arm Rock Shaft Crank (front) Set Screw for 64255.....
453c 8901	Arm Rock Shaft Flanged Bushing Front Set Screw.....
453c 8901	Feed Bar Hinge Pin Set Screw for 54488.....
453c 8901	" Rocking Frame Hinge Pin Bushing Set Screw.....
453c 8901	Feed Rocking Frame Hinge Pin Set Screw for 51026.....
453c 8901	Presser Bar Guide Bracket Set Screw for 51039.....
457c 8904	Feed Connecting Rod Hinge Pin Collar Set Screw for 21506.....
460c 9872	Presser Bar Lifting Lever Connecting Stud Set Screw for 61047.....
460c 9872	Thread (under) Take-up Thread Guard Steady Pin Set Screw for 51049.....
465c 8958	Thread (under) Nipper Cam Set Screw for 64351.....
465c 8958	Thread (under) Take-up Set Screw for 38475.....
574w 8958	Pressure Regulating Thumb Screw.....
924c 8958	Tension (upper thread) Releasing Shaft Crank Set Screw for 51047.....
640b 8958	Looper Driving Shaft and Feed Lifting Eccentric Screw for 54384 and 68111...
640w 8958	Presser Bar Guide Bracket Adjusting Screw for 51039.....
665w 9877	Presser Foot Needle Plate Spring Screw for 51499 and 68088.....

NO. PLATE	NAME
704w 8958	Looper Holder Screw.....
725i 8904	Cloth Plate Slide (left) Spring Screw for 54013.....
725j 8904	Cloth Plate Slide (right) Spring Screw for 54056, 54058 and 68192.....
742f 9872	Tension (under thread) Plate Screw.....
742f 9872	Throat Plate Screw.....
761e 8901	Looper Driving Shaft and Feed Lifting Eccentric Bracket Bushing Set Screw for 54034.....
802b 8958	Presser Bar Lifting Lever Hinge Screw...
896e 8904	Crank Connecting Rod Cap (lower) Screw for 54017.....
896e 8904	Feed Connecting Rod Cap Screw for 54111.....
948d 8958	Looper Driving Shaft and Feed Lifting Eccentric Bracket Screw for 54001 and 68109.....
948e 8958	Machine Screw, to fasten machine to base, for 54358 and 68224.....
965d 9872	Thread (under) Take-up Staple Bracket Screw.....
1011f 8904	Cloth Plate Screw (left).....
1019c 8958	Slack Thread Regulator Holder Shaft Collar Set Screw for 24292.....
1057e 8904	Crank Connecting Rod Cap (upper) Screw for 54017.....
1057e 8904	Feed Connecting Rod Clamping Screw for 54111.....
1103c 8904	Feed Regulating Screw for 54025.....
1120c 8958	Looper (intermediate) Set Screw for 54061.....
1133e 8958	Needle Bar Bushing (lower) Set Screw...
1133c 8958	" " " (upper) Set Screw...
1133c 8958	Presser Bar Bushing (lower) Set Screw...
1133c 8958	" " " (upper) Set Screw...
1147c 9872	Looper (back) Set Screw for 54061.....
1192c 8985	Belt Guard Hinge Pin Set Screw for 54357, obsolete.....
1192c 8985	Belt Guard Set Screw for 54356, obsolete.....
1235d 9872	Cloth Plate Thread Guard Screw.....
1250c 8911	Presser Bar Lifter Stop Screw.....
1253c —	Slack Thread Regulator Holder Shaft Crank Set Screw for 54044.....
1259c 8958	Arm Rotary Shaft Collar Set Screw for 54008.....
1302d 9872	Looper (front) Screw (right) for 68015...
1449d 9872	Thread (upper) Take-up Plate Spring Screw for 68009.....

NO.	PLATE	NAME
1498F	9872	Needle Set Screw for 128215.....
1516E	8904	Crank Connecting Rod Ball Screw Stud Nut.....
1520J	9872	Needle Bar Connecting Link Hinge Stud Nut.....
1539W	9872	Pressure Regulating Thumb Screw Lock Nut.....
1547J	9872	Tension (upper thread) Releasing Shaft Stop Screw Nut.....
1698E	9872	Looper Thread Guide Nut.....
1872	8985	Presser Bar Lifter Roller and Stud for 61047.....
1963	8985	Presser Bar Guide Bracket Roller and Stud for 54039.....
2102	8964	Tension (under thread) Disc.....
2102	8964	" (upper thread) Disc.....
2117	8901	Arm Rock Shaft Crank (front) Pin.....
2763	8980	Rock Shaft for 23767.....
2766	8980	Rock Shaft Knee Arm Hub with 356c, for 6336.....
2767	8980	Rock Shaft Knee Plate with 356c, for 6336
2770	8980	" " Stop Dog with 356c, for 23767
4822	8941	Wrench for 1547 (Accessories).....
4879	8941	Chain Connecting Link.....
4882	8941	Treadle Shaft for 126252.....
5604	8952	Bench Stand Slide Spring Pin for 79611..
6055	9872	Machine Base Bolt Nut Washer for 54358 and 68224.....
6335	8980	Rock Shaft Knee Arm for 6336.....
6336	—	Rock Shaft Knee Arm complete for 23767, Nos. 2766, 2767 and 6335.....
6337	8980	Rock Shaft Lifting Bracket with two 356c for 23767.....
6439	—	Chain, 36 in. to 45 in., with 56864 and 56865.....
6575	8904	Crank Connecting Rod Oil Pad Stop Pin for 54017.....
7071	8904	Feed Eccentric Clamping Washer for 54025.....
7125	8980	Rock Shaft Lifting Bracket Hook for 23767.....
8909	8941	Wrench for 1520 (Accessories).....
9370	8952	Bench Stand Slide Spring for 79611.....
11173	8985	Presser Bar Guide Bracket Guide.....
11184	9877	Presser Foot Leveling Plate Hinge Pin for 54499 and 68088.....

NO.	PLATE	NAME
12242	8980	Rock Shaft Hanger with two wood screws, 1 in. No. 10 for 23767.....
15196	8902	Arm Side Cover (back).....
17547	8964	Tension (under thread) Thread Guide....
19221	8941	Wrench for 1516 (Accessories).....
21506	8904	Feed Connecting Rod Hinge Pin Collar with 457c, for 68022.....
*23729	—	Feed Eccentric Body for 54025.....
23767	8980	Rock Shaft complete, Nos. 2763, 2770, 6336, 6337, 7125 and two 12242.....
24292	9870	Slack Thread Regulator Holder Shaft Collar with 1019c.....
25303	8961	Presser Bar Ball, size 1/4 in., for 64330...
26026	8941	Screw Driver, large (Accessories).....
26276	8911	Presser Foot Hinge Pin for 68027, 68203 and 120754.....
26485	8941	Screw Driver, small (Accessories).....
27347	8985	Belt Guard Hinge Pin for 54358, obsolete
27739	8996	Thread Cone (wood) for large cones....
32572	8964	Tension (upper thread) Releasing Disc...
37563	—	Chain, length 15 in., with 56864 and 56865
38210	9870	Thread (under) Nipper Spring (lower)...
38211	9870	" " " " (upper)...
38419	8904	Cloth Plate Slide (left) Spring for 54013.
38419	8904	" " " (right) Spring for 54056, 54058 and 68192.....
38456	8961	Needle Bar Bushing (lower).....
38456	8961	Presser Bar Bushing (upper).....
38468	9872	Presser Bar Spring Stud.....
38475	9876	Thread (under) Take-up with 465c.....
38482	9871	" " " Stripper.....
38487	8941	Threading Wire (Accessories).....
40326	8961	Looper Driving Shaft and Feed Lifting Eccentric Oil Pad (braided cotton)....
41538	—	Bench Stand Flush Bolt with Plate complete for 79611, Nos. 126247, 126248 and four brass wood screws 5/8 in. No. 4
42366	8901	Arm Oil Pad (braided cotton) for oiling Arm Rock Shaft Front Bearing.....
46041	9871	Thread (under) Take-up Staple Spring...
46087	—	Presser Foot Shank for 68027, 68203 and 120754.....
46111	8911	Face Plate Pin.....
46247	9870	Thread (under) Nipper Spring (upper) Stop.....
49013	8904	Arm Rotary Shaft Front Bearing Oil Pad (braided cotton).....

NO.	PLATE	NAME
49013	8904	Looper Carrier Connection Shaft Oil Pad (braided cotton).....
49092	9870	Oil Tube Packing (felt) for 54110.....
49123	8996	Machine Base Oil Pipe for 54358 and 68224
50069c	8901	Crank Connecting Rod Ball Screw Stud for 54088.....
50083c	8901	Arm Rock Shaft Crank (back) Set Screw for 54005.....
50084c	9872	Arm Rotary Shaft Bushing (intermediate) Set Screw (short).....
50150c	8958	Slack Thread Regulator Set Screw for 54042.....
50326c	8964	Tension (under thread) Screw Stud for 59539.....
50326c	8964	Tension (upper thread) Screw Stud for 59539.....
50429	8904	Feed Dog Stop Screw for 54488.....
50473f	8904	Cloth Plate Screw (right).....
51061c	8958	Feed Eccentric Body Set Screw for 54025
51065c	9877	Presser Foot Shank Screw for 54499 and 68088.....
51072e	9872	Machine Base Bolt with 51581e, for 54358 and 68224.....
51131e	9872	Arm Rotary Shaft Bushing (front) Set Screw.....
51570c	8964	Tension (under thread) Regulating Thumb Nut for 59539.....
51570c	8964	Tension (upper thread) Regulating Thumb Nut for 59539.....
51581e	9872	Machine Base Bolt Nut for 51072e.....
52045	8901	Arm Oil Tube Packing (braided cotton) for 56003.....
52045	8901	Arm Rock Shaft Bushing Oil Pad (braided cotton).....
52045	8901	Arm Rock Shaft Flanged Bushing (front) Oil Pad (braided cotton).....
52045	8901	Arm Rotary Shaft Bushing (front) Oil Pad (braided cotton).....
*54001	—	Arm, upper and lower (solid) with 948b and 54034, for 447-30 Machine.....
54002	8902	Arm Rock Shaft for 54079.....
54004	8901	“ “ “ Collar with two 453c, for 54079.....
54005	8901	Arm Rock Shaft Crank (back) with two 50083c, for 54079.....

NO.	PLATE	NAME
*54006	9880	Arm Rotary Shaft for 54384.....
NOTE: When No. 54006 is required for repairs, the Looper Driving Shaft and Feed Lifting Eccentric must be returned to the factory to be adjusted to the new part.		
54007	8902	Arm Rotary Shaft Bushing (intermediate) for 54089.....
54008	8901	Arm Rotary Shaft Collar with three 1259c for 54384 and 68111.....
54009	8902	Arm Rotary Shaft Flanged Bushing for 54090.....
54010	8904	Arm Side Cover (front).....
54011	9880	Cloth Plate for 54059, 54060 and 68267..
54012	8902	“ “ Slide (left) for 54013.....
54013	—	Cloth Plate Slide (left) complete for 54059, 54060, and 68267, Nos. 38419, 54012 and two 725j.....
54017	8902	Crank Connecting Rod with 6575, 54018, 54218, 54897, 57222 and two each 896e and 1057e, for 54088.....
*54018	—	Crank Connecting Rod Cap (upper) for 54017.....
54020	8902	Feed Bar Connection for 68022.....
54023	8911	“ Connecting Rod Hinge Pin for 68022
*54024	—	“ Eccentric for 54025.....
54025	8985	Feed Eccentric (adjustable) complete for 54113, Nos. 217b, 1103c, 7071, 23729, 54024 and two 51061c.....
54026	9873	Feed Rocking Frame with two 453c, for 68022.....
54027	9869	Looper Carrier with two 171b, for 54383.
*54032	—	“ “ Driver Cap for 54230....
*54034	—	“ Driving Shaft and Lifting Eccentric Bracket with 761e, for 54001 and 68109.....
54038	8961	Needle Guard Holder.....
54039	8985	Presser Bar Guide Bracket with 453c, 640w and 1963.....
54040	9873	Presser Bar Spring (flat).....
54042	9870	Slack Thread Regulator Holder with 175e and two 50150c.....
54043	9870	Slack Thread Regulator Holder Shaft
54044	9870	“ “ “ “ “
		Crank (forked) with 1253c.....
54047	8964	Tension (upper thread) Releasing Shaft Crank with 624c.....

NO.	PLATE	NAME
54048	8964	Tension (upper thread) Releasing Shaft Crank Link.....
54049	9873	Thread (under) Take-up Staple Bracket with 460c.....
54055	9874	Cloth Plate Slide (right) for 54056.....
54056	—	Cloth Plate Slide (right) complete for 54059, Nos. 38419, 54055 and two 7251.....
54057	9874	Cloth Plate Slide (right) for 54058.....
54058	—	Cloth Plate Slide (right) complete for 54060, Nos. 38419, 54057 and two 7251.....
54059	—	Cloth Plate complete, for $\frac{3}{32}$ in. and $\frac{7}{64}$ in. gauges, for 68010, for 147-30 Machine, Nos. 54011, 54013 and 54056.....
54060	—	Cloth Plate complete, for $\frac{1}{8}$ in. and $\frac{9}{64}$ in. gauges, for 68010, for 147-30 Machine, Nos. 54011, 54013 and 54058.....
54061	9869	Looper Holder with 1120c and 1147c....
54079	—	Arm Rock Shaft 54002 with 54004, 54005 and 64255.....
54080	9876	Looper Driving Shaft and Feed Lifting Eccentric Bracket Bushing.....
54088	—	Crank Connecting Rod 54017 with 50069, for 54384 and 68111.....
54089	—	Arm Rotary Shaft Bushing (intermediate) 54007 with 64508 and 64805.....
54090	—	Arm Rotary Shaft Flanged Bushing 54009 with 58039 and 64805.....
54103	9873	Presser Bar Lifting Lever Extension, obsolete.....
54104	9880	Cloth Plate Thread Guard.....
54105	8901	Arm Rock Shaft Flanged Bushing (front)
54108	—	Oil Tube for 54110.....
54109	—	“ “ Bracket for 54110.....
54110	9870	Oil Tube complete, for oiling Crank Connecting Rod (upper bearing), Nos. 49092, 54108 and 54109.....
54111	8902	Feed Connecting Rod with 1057E, 54112 and two 896E, for 54113.....
*54112	—	Feed Connecting Rod Cap for 54111.....
54113	—	“ “ “ 54111 with 54025, for 54384 and 68111.....
54218	8904	Crank Connecting Rod Oil Pad (braided cotton) for 54017.....
54227	9869	Looper Carrier Connection for 54383.....
54228	9869	“ “ “ Shaft for 54383
54229	9876	“ “ “ “ Bushing

NO.	PLATE	NAME
54230	9869	Looper Carrier Driver with 54032 and four 175E, for 54383.....
54242	9870	Slack Thread Controller Clamp.....
54326	8961	Needle Bar Connecting Link for 54329....
54327	8961	“ “ “ “ Hinge Stud for 54329.....
54328	8961	Needle Bar Connecting Stud with 211F and two 187E, for 54329.....
54329	—	Needle Bar Connecting Link 54326 with 54327 and 54328.....
54330	9871	Thread (upper) Controller.....
54356	8980	Belt Guard with 1192c, for 54358, obsolete
54357	8980	Machine Base with 1192c, for 54358, obsolete.....
54358	—	Machine Base with Belt Guard complete, Nos. 27347, 49123, 54356, 54357, 60884, three each 6055, 51072E and four each 948E and 57285, obsolete.....
54367	8985	Arm Rotary Shaft Bushing (front).....
*54368	8961	Looper Driving Shaft and Feed Lifting Eccentric with 227D and two 64315, for 54383.....
NOTE: When No. 54368 is required for repairs, the Arm Rotary Shaft must be returned to the factory to be adjusted to the new part.		
54381	9870	Slack Thread Controller.....
54383	—	Looper Driving Shaft and Feed Lifting Eccentric 54368 with 54027, 54227, 54228 and 54230, for 54384 and 68111
54384	—	Arm Rotary Shaft 54006 with 640D, 54008, 54088, 54113, 54383, 64351 and 64355, for 147-30 Machine.....
54486	9874	Face Plate.....
54487	9871	“ “ Thread Guard.....
54488	9874	Feed Bar with 50429c and two 453c, for 68022.....
54489	9875	Feed Dog, 22 teeth (14 teeth to the inch) for 68010.....
54490	9869	Looper (back) closed eye.....
54491	9869	“ (front) closed eye, for 68015.....
54492	9869	“ (intermediate) closed eye, for 68015
54493	—	Needle Bar complete, Nos. 64319 and 128215.....
54494	9872	Needle Guard, for $\frac{3}{32}$ in. to $\frac{9}{64}$ in. gauges between each needle.....

NO.	PLATE	NAME
54495	—	Presser Foot Leveling Plate for 54499 and 68088.....
54496	—	Presser Foot Needle Plate for 54499.....
54497	—	“ “ Plate for 54499.....
54498	—	Presser Foot Shank for 54499 and 68088.....
54499	9877	“ “ (hinged) complete, for $\frac{3}{32}$ in. to $\frac{1}{8}$ in. gauges, for overall work, Nos. 11184, 54495 to 54498, 68160, 68161 and two each 665w and 51065c.....
54500	9870	Slack Thread Regulator.....
54897	8904	Crank Connecting Rod Oil Cup for 54017.....
54988	8964	Tension (upper thread) Releasing Pin..
54990	8964	“ “ “ “ Shaft Spring, obsolete.....
56003	8985	Arm Oil Tube with 52045, for oiling 54326.....
56006	8901	“ “ Pad (braided cotton) for oiling Arm Rock Shaft (intermediate) Bearing.....
56864	8941	Chain Hook (large) for 6439.....
56865	8985	“ “ (small) for 6439.....
57076	8964	Tension (upper thread) Thread Guide (double).....
*57222	—	Crank Connecting Rod Cap (lower) for 54017.....
57225	8904	Feed Bar Hinge Pin for 68022.....
57234	8911	“ Rocking Frame Hinge Pin.....
57235	8985	“ “ “ “ Bushing.....
57257	8911	Presser Bar Lifter.....
57258	8911	“ “ “ Hinge Pin.....
57285	8996	Machine Cushion (felt) for 54358 and 68224.....
58039	8902	Arm Rotary Shaft Flanged Bushing Oil Pad (long) braided cotton, for 54090 ..
59456	9870	Looper Thread Guide Nut Washer.....
59534	8964	Tension (under thread) Spring.....
59535	8964	“ (upper thread) Spring.....
59537	8964	“ (under thread) Spring Bushing (large).....
59537	8964	Tension (upper thread) Spring Bushing (large).....
59538	8964	Tension (under thread) Spring Bushing (small).....
59538	8964	Tension (upper thread) Spring Bushing (small).....
59539	—	Tension (under thread) Screw Stud 50326c with 51570c.....
59539	—	Tension (upper thread) Screw Stud 50326c with 51570c.....

NO.	PLATE	NAME
60656	8952	Bench Stand Hinge for 79611.....
60884	8985	Machine Base Oil Pipe Plug for 54358 and 68224.....
61047	8911	Presser Bar Lifting Bracket with 460c and 1872.....
61075	8911	Presser Bar Lifting Lever Connecting Stud.....
64255	8911	Arm Rock Shaft Crank (front) with 453c, for 54079.....
64259	9874	Balance Wheel with two 430c.....
64268	8904	Crank Connecting Rod Ball Screw Stud Nut Washer.....
64315	9870	Looper Driving Shaft and Feed Lifting Eccentric Bracket Oil Hole Plug for 54368.....
64319	9872	Needle Bar (hollow) for 54493.....
64320	8961	“ “ Bushing (upper).....
64330	9873	Presser Bar with 25303.....
64331	8911	“ “ Bushing (lower).....
64351	9870	Thread (under) Nipper Cam with 465c, for 54384 and 68111.....
64355	9871	Thread (under) Take-up Thread Guard (brass) for 54384 and 68111.....
64356	9871	Thread (under) Take-up Thread Guard Steady Pin.....
64362	8996	Presser Bar Lifting Lever, obsolete.....
64386	8901	Arm Rock Shaft Bushing (back).....
64388	8901	“ “ “ “ (intermediate).....
64508	8902	“ Rotary Shaft Bushing (intermediate) Oil Pad (long) braided cotton, for 54089.....
64805	8985	Arm Rotary Shaft Bushing (intermediate) Oil Pad (short) braided cotton, for 54089.....
64805	8985	Arm Rotary Shaft Flanged Bushing Oil Pad (short) braided cotton, for 54090 ..
68001	9871	Tension (under thread) Plate.....
68002	9874	“ (upper thread) Bracket.....
68003	9874	“ “ “ Releasing Shaft..
68004	9871	Thread (under) Eyelet (back).....
68005	9871	“ “ “ (front).....
68006	9871	“ (upper) Eyelet.....
68007	9871	“ “ Take-up for 68009.....
68008	9871	“ “ “ Plate for 68009.....
68009	—	Thread (upper) Take-up complete, Nos. 1449b, 68007, 68008 and 68164.....
68010	9875	Throat Plate, for $\frac{3}{32}$ in. to $\frac{9}{64}$ in. gauges, for 54489.....

NO.	PLATE	NAME
68015	—	Looper (intermediate) 54492 with 229D, 1302D and 54491.....
68022	—	Feed Rocking Frame 54026 with 21506, 54020, 54023, 54488 and 57225.....
68026	—	Presser Foot Plate for 68027.....
68027	9877	Presser Foot (hinged) guide on bottom, complete, for $\frac{3}{32}$ in. to $\frac{9}{64}$ in. gauges, Nos. 26276, 46087 and 68026.....
68072	9875	Feed Dog, 14 teeth (19 teeth to the inch) for 68073.....
68073	9875	Throat Plate, for $\frac{3}{32}$ in. to $\frac{3}{16}$ in. gauges, for 68072, for 147-30 Machine.....
68083	9871	Looper Thread Guide.....
68086	—	Presser Foot Needle Plate for 68088.....
68087	—	“ “ Plate for 68088.....
68088	9877	Presser Foot (hinged) complete, for $\frac{9}{64}$ in. to $\frac{3}{16}$ in. gauges, for overall work, Nos. 11184, 54495, 54498, 68086, 68087, 68160, 68161 and two each 665W and 51065C.....
*68109	—	Arm, upper and lower (solid) with 948D and 54034, for 147-31 Machine.....
*68110	9880	Arm Rotary Shaft for 68111.....

NOTE: When No. 68110 is required for repairs, the Looper Driving Shaft and Feed Lifting Eccentric must be returned to the factory to be adjusted to the new part.

68111	—	Arm Rotary Shaft 68110 with 640D, 54008, 54088, 54113, 54383, 64351 and 64355, for 147-31 Machine.....
68160	9877	Presser Foot Needle Plate Spring (left) for 54499 and 68088.....
68161	9877	Presser Foot Needle Plate Spring (right) for 54499 and 68088.....
68162	9876	Feed Dog, 15 teeth (10 teeth to the inch) for 68163.....
68163	9876	Throat Plate, for $\frac{1}{8}$ in. to $\frac{3}{16}$ in. gauges, for 68162, for 147-31 Machine.....
68164	9871	Thread (upper) Take-up Plate Spring for 68009.....
68165	9871	Thread (under) Take-up Staple.....
68184	9873	Presser Bar Lifting Lever Extension.....
68191	—	Cloth Plate Slide (right) for 68192.....
68192	—	Cloth Plate Slide (right) complete for 68267, Nos. 38419, 68191 and two 725J.....
68202	—	Presser Foot Plate for 68203.....

NO.	PLATE	NAME
68203	9877	Presser Foot (hinged) complete, for $\frac{3}{32}$ in. to $\frac{3}{16}$ in. gauges, for 147-30 Machine, Nos. 26276, 46087 and 68202.....
68208	9873	Presser Bar Lifting Lever.....
68222	9879	Belt Guard with two screws 1 in. No. 12.....
68223	9879	Machine Base for 68224.....
68224	—	Machine Base complete, Nos. 49123, 60884, 68223, three each 6055, 51072E and four each 948E and 57285.....
68247	—	Needle Guard, for $\frac{3}{32}$ in. to $\frac{3}{16}$ in. gauges between each needle.....
68261	—	Tension (upper thread) Releasing Shaft Spring.....
68267	—	Cloth Plate complete, for $\frac{3}{32}$ in. to $\frac{3}{16}$ in. gauges, for 68073, for 147-30 Machine and for $\frac{1}{8}$ in. to $\frac{3}{16}$ in. gauges, for 68163, for 147-31 Machine, Nos. 54011, 54013 and 68192.....
79611	—	Bench Stand with 5604, 9370, two 41538, three wood screws $1\frac{1}{4}$ in. No. 14, four 60656 and sixteen wood screws $\frac{5}{8}$ in. No. 7.....
120341	8941	Tweezers, curved (Accessories).....
120344	8941	Oiler (copper plated) with 120345 (Accessories).....
120345	8941	Oiler Spout, 5 in. long, for 120344.....
120524	9878	Lap Seam Feller on Shank.....
120707	9878	“ “ “ “ “ to allow for taking work out of folder and finishing pocket seams.....
120753	—	Presser Foot Plate with Edge Folder, for 120754.....
120754	9877	Presser Foot (hinged) with Edge Folder complete, for yoking, for $\frac{3}{32}$ in. to $\frac{3}{16}$ in. gauges, for 147-30 Machine, Nos. 26276, 46087 and 120753.....
126247	8952	Bench Stand Flush Bolt for 41538.....
126248	8952	“ “ “ “ Plate for 41538..
126249	8980	Treadle for 126252.....
126250	8941	“ Spring for 126252.....
126251	8980	“ Stand for 126252.....
126252	8980	Treadle complete, Nos. 4882, 126249 to 126251 and two wood screws 1 in. No. 16.....
128215	9872	Needle Clamp with three 1498F, for 54493.....
200383C	8985	Thread Unwinder Spool Rest Rod Set Screw for 202490.....

NO.	PLATE	NAME
201018c	8985	Thread Unwinder Spool Rest Set Screw for 225395.....
201696j	9872	Thread Unwinder Thread Guide Lock Nut for 225378.....
202490	8997	Thread Unwinder Spool Stand with 200383c, for 225378.....
225378	8997	Thread Unwinder complete, Nos. 201696j, 202490, 225388, 225392, three each 225395, six 225391 and three wood screws $\frac{7}{8}$ in. No. 12.....
225388	8997	Thread Unwinder Spool Rest Rod for 225378.....
225390	8996	Thread Unwinder Thread Cone Holder, for inverted cones.....
225391	8997	Thread Unwinder Thread Guide for 225378
225392	8997	“ “ “ “ Rod with 208E and 225393, for 225378.....
225393	9872	Thread Unwinder Thread Guide Rod Washer for 225392.....
225395	8997	Thread Unwinder Spool Rest (for two spools) with 201018c for 225378.....

**Genuine Singer Needles and their Con-
tainers 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
FOR
MACHINES
Nos. 147-30 and 147-31**

PLATE 8901—FULL SIZE

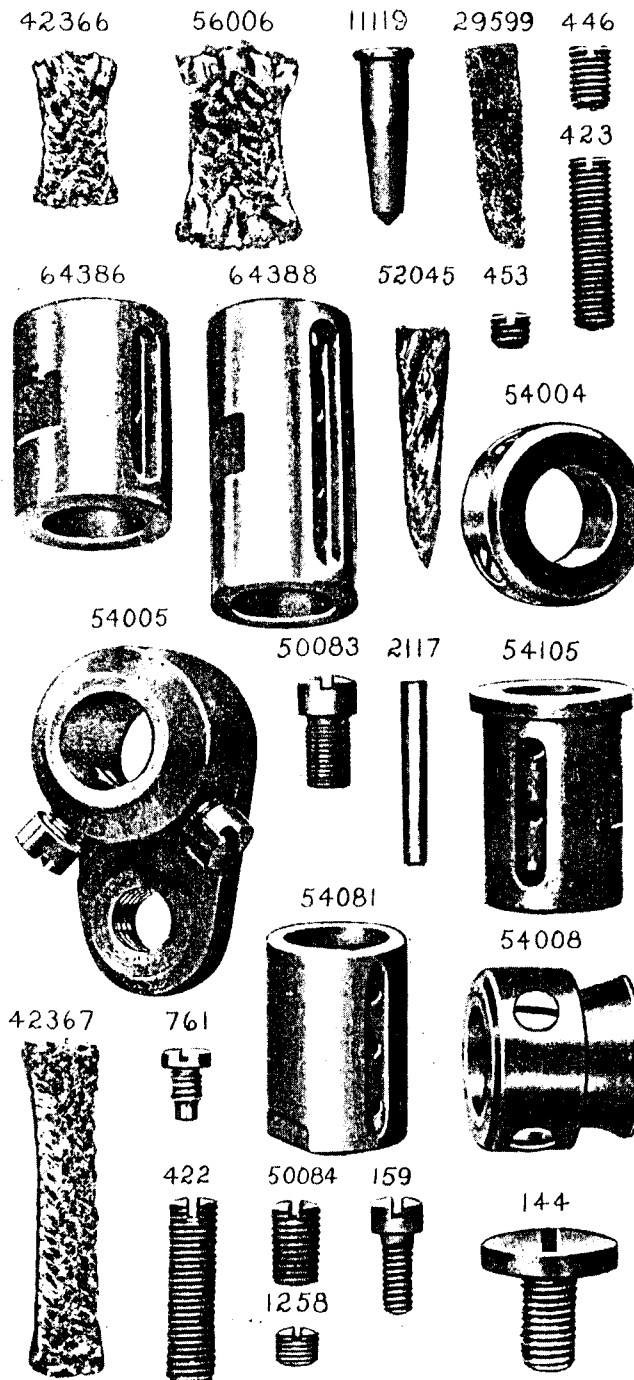
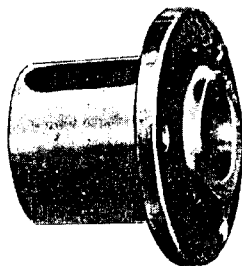
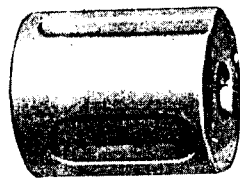


PLATE 8902—ONE-HALF SIZE

54002

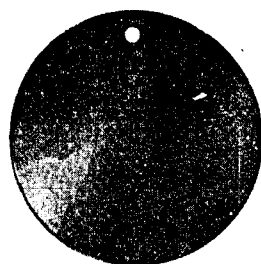
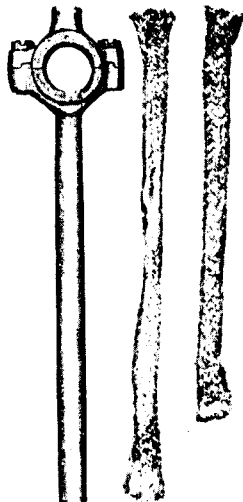
54007

54009



54017 64508 58039

15196

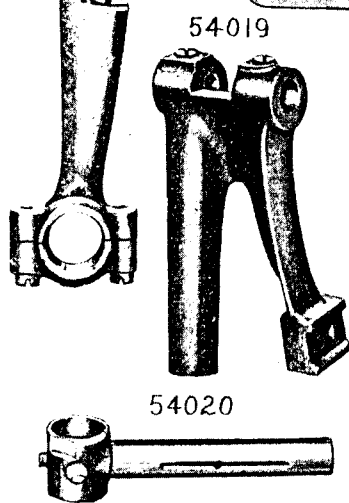


54012



54019

54111



54020

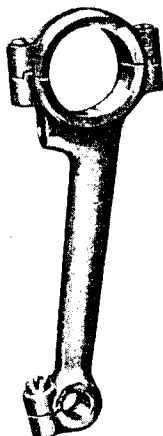
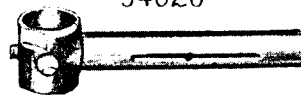


PLATE 8904—FULL SIZE

49013

286

54010

430



50473

1011



38419

725

1235



50069

1516

64268

896

1057



54897

57225

21506

457

54218

6575

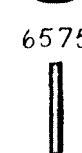
54010

443

7071



6575



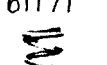
443

7071

50429

61171

1103



157

21332

934



PLATE 8911—FULL SIZE

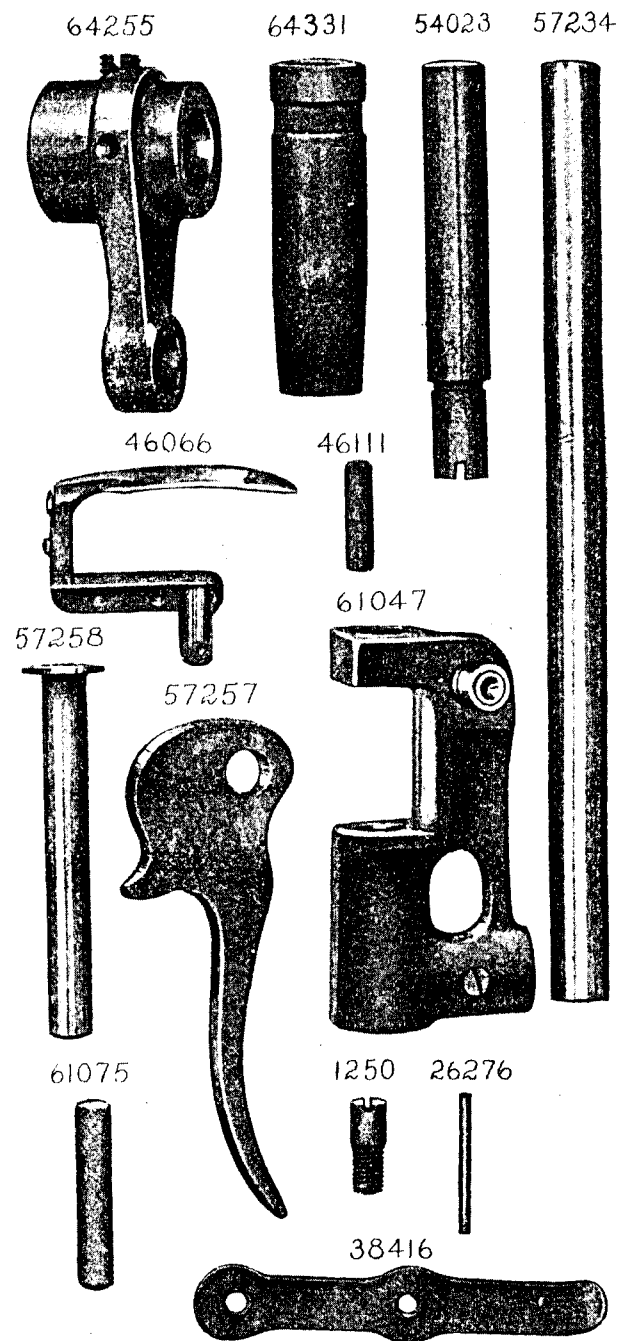


PLATE 8941—ONE-HALF SIZE

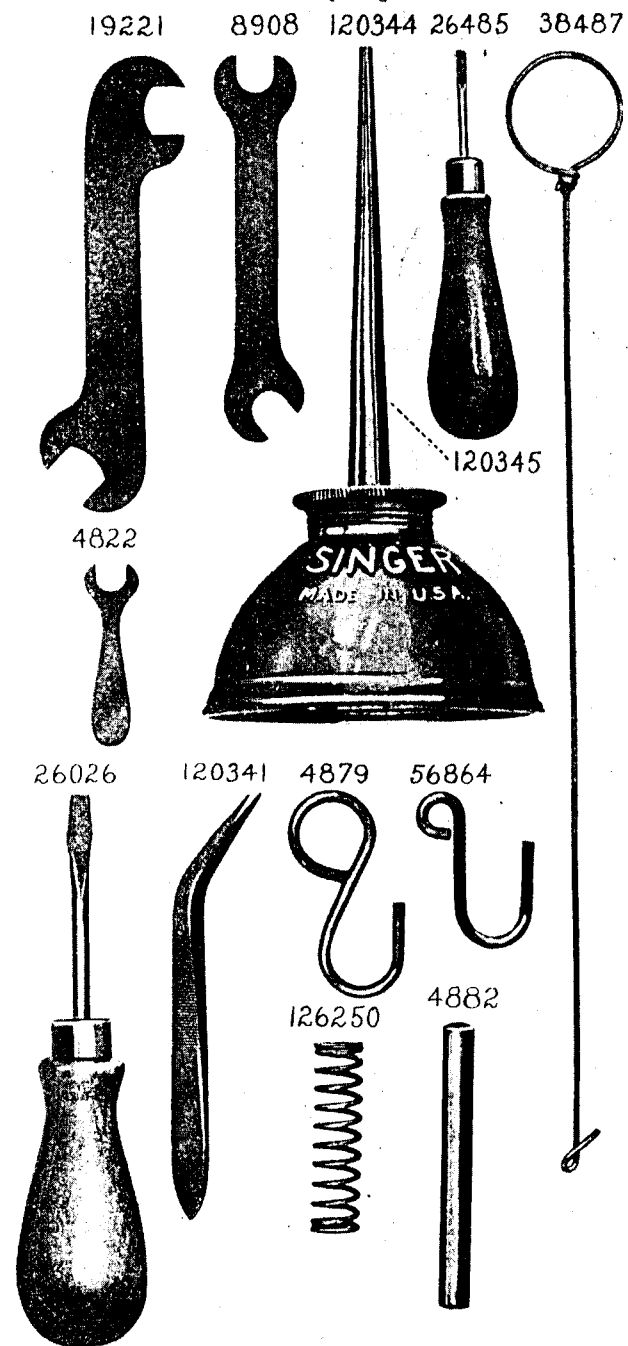
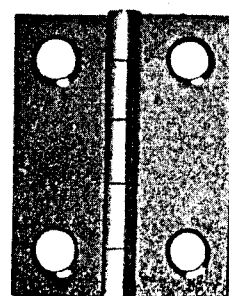


PLATE 8952—FULL SIZE

9370

126247

124500



126248

5604



27998



60656

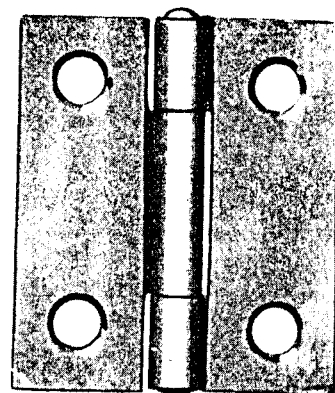


PLATE 8958—FULL SIZE

316

447

1036

448

1259

1133



1498

465

1019

462

50150

624



50571

50378

161

176

704

190



171

175

187

227

211



376

51061

1120

50200

1253

857



229

590

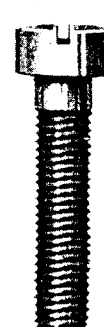


948

640

391

218



26

21

802

574



PLATE 8961—FULL SIZE

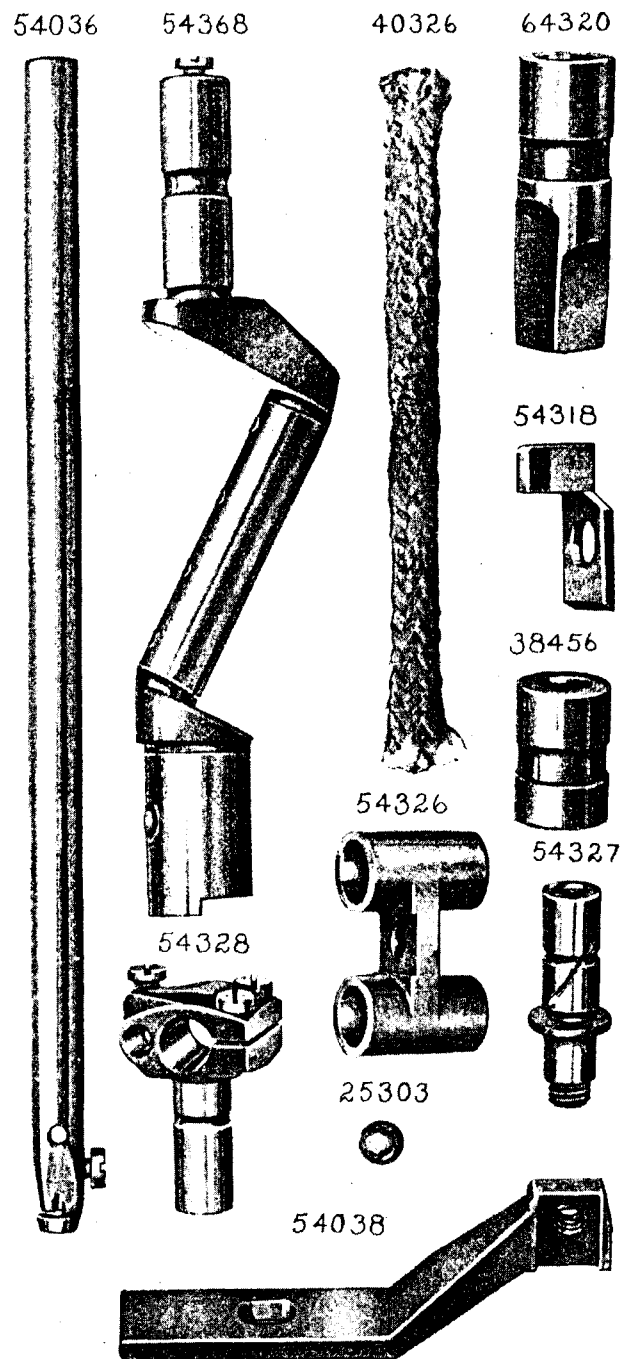


PLATE 8964—FULL SIZE

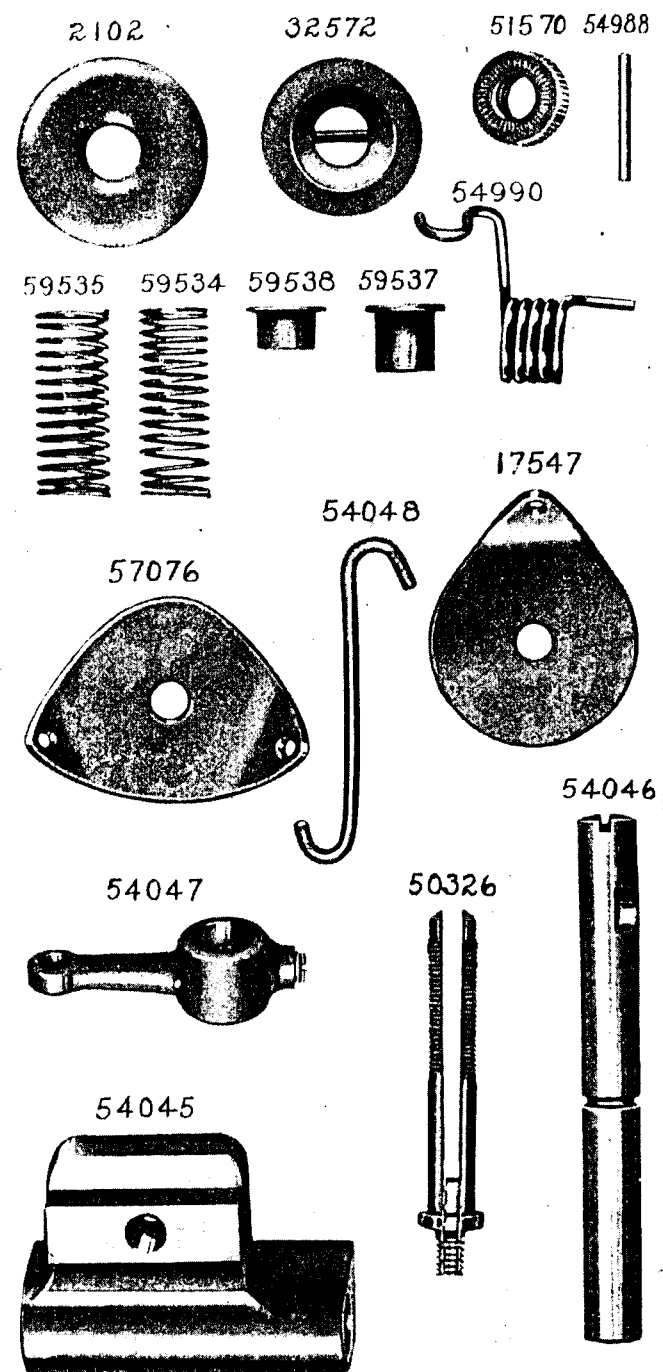


PLATE 8980—ONE-FOURTH SIZE

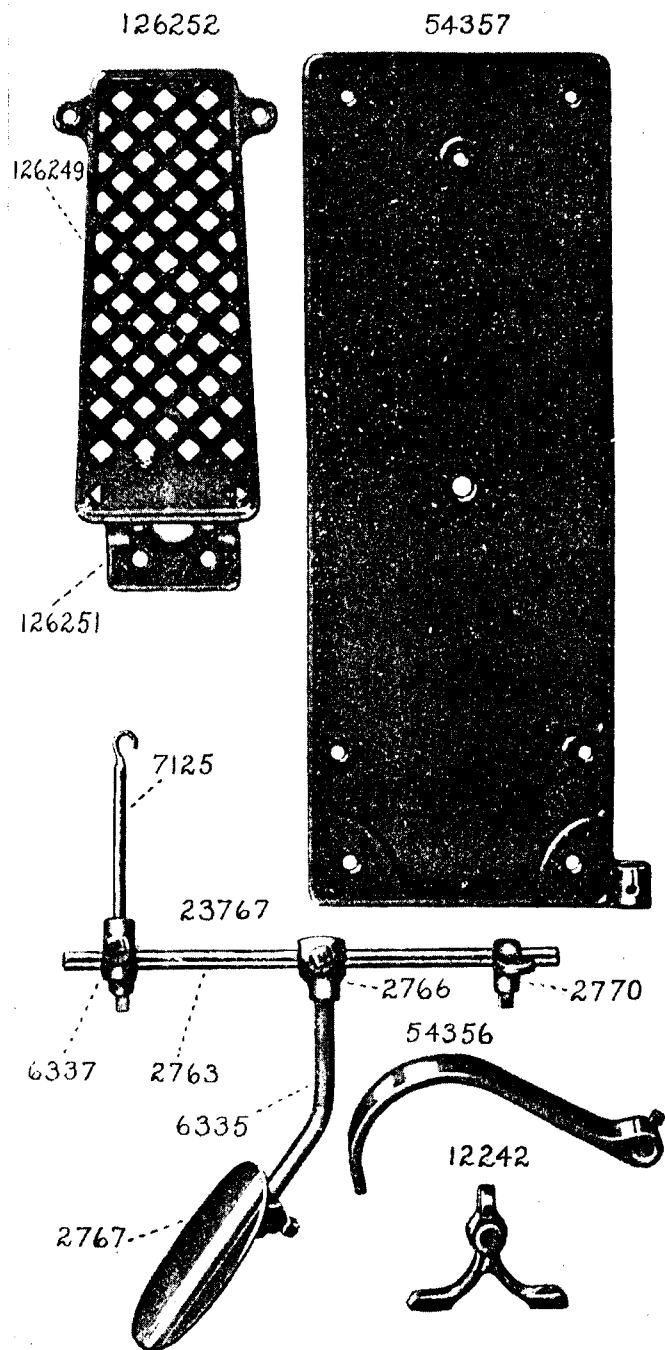


PLATE 8985—FULL SIZE

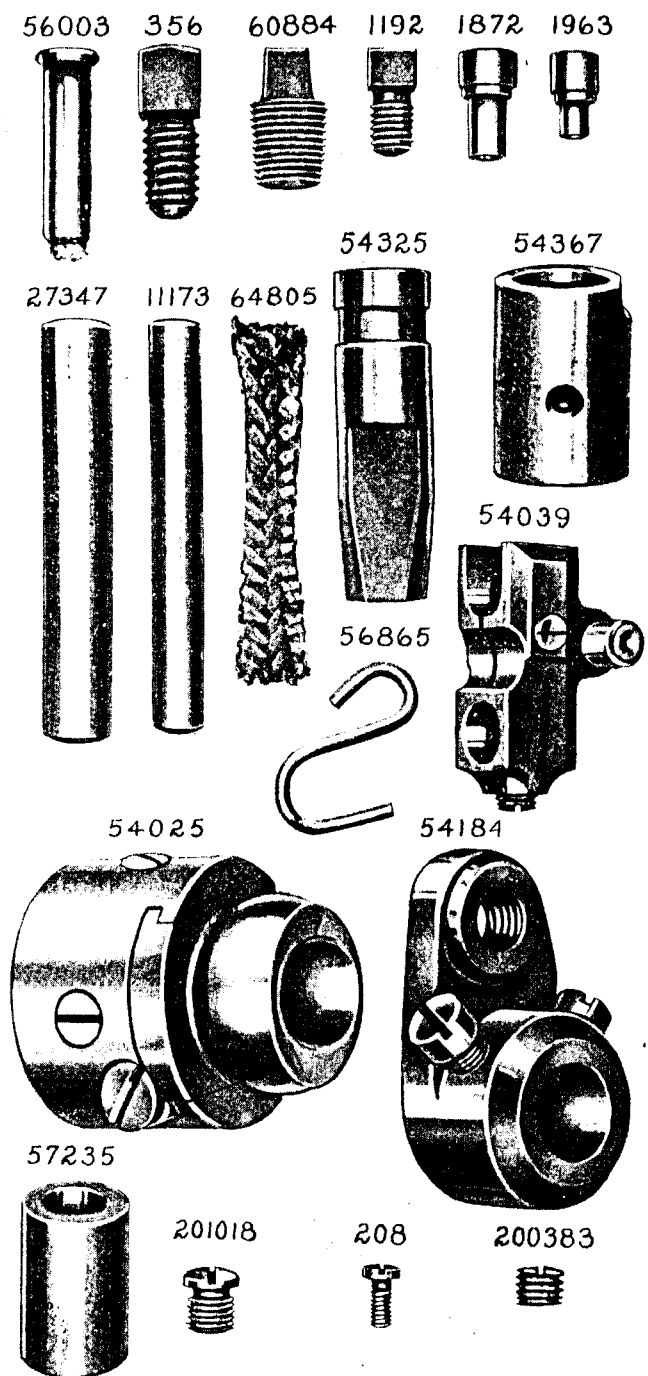


PLATE 8996—ONE-HALF SIZE

64362 54245 54070 49123

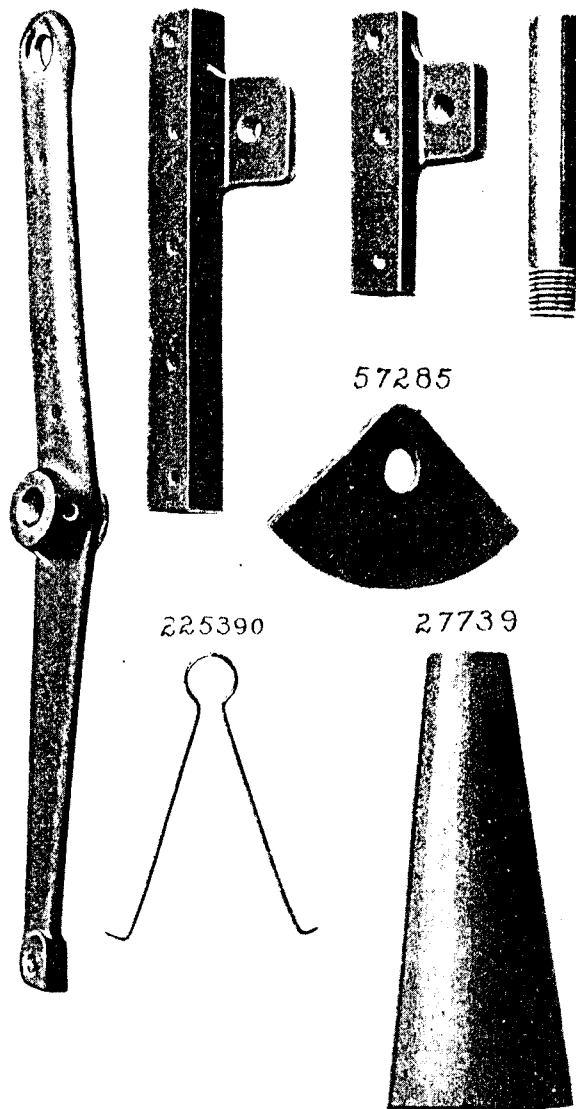


PLATE 8997—ONE-SIXTH SIZE

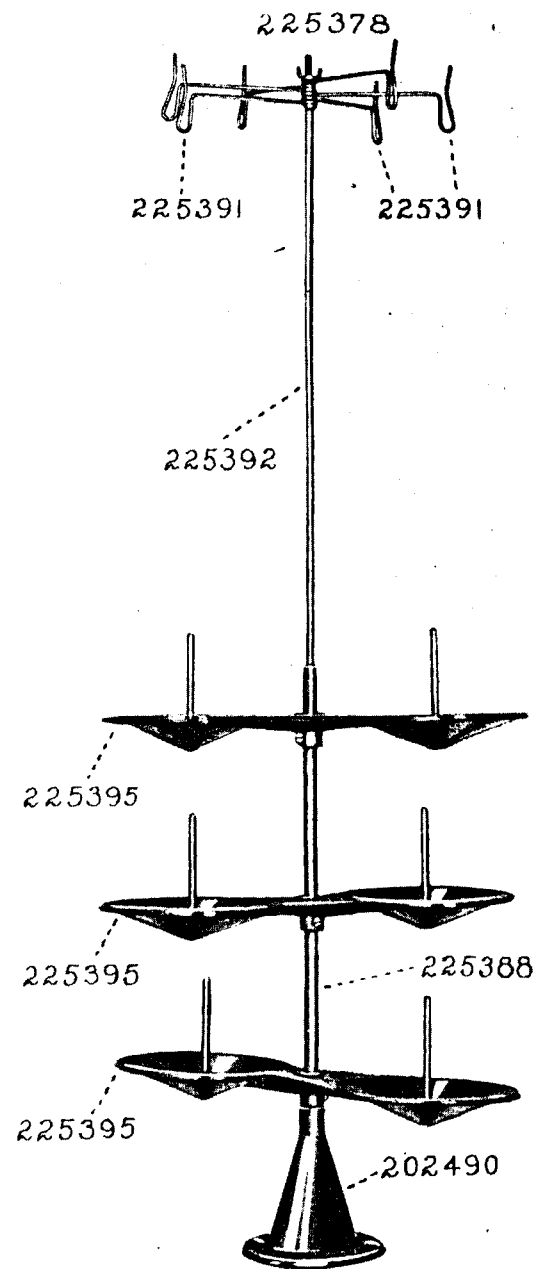
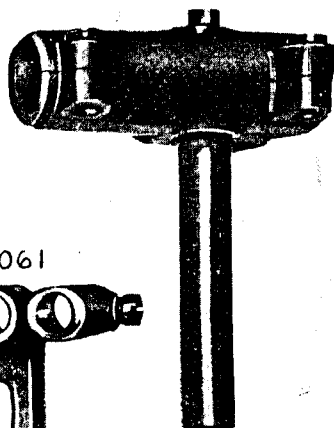


PLATE 9869—FULL SIZE

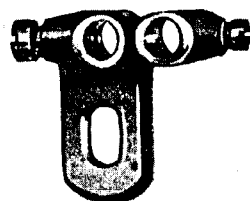
54228



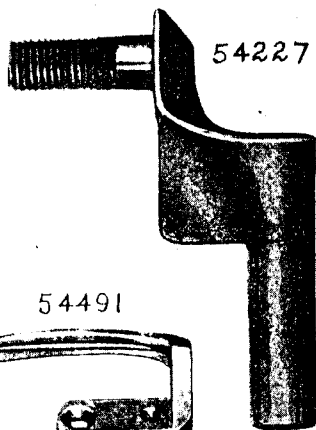
54230



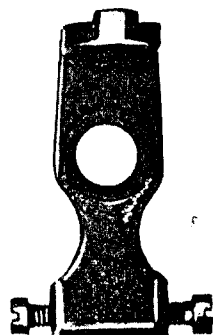
54061



54227



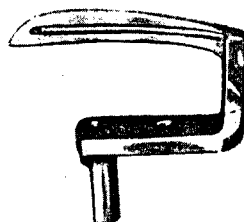
54027



54491



54492



54490

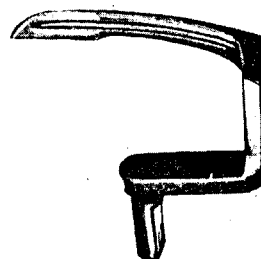
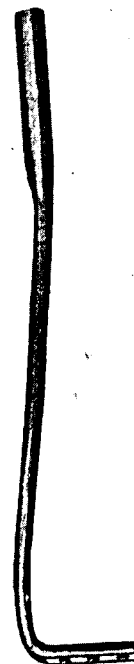


PLATE 9870—FULL SIZE

54500



54043



54381



54042



54044



54242



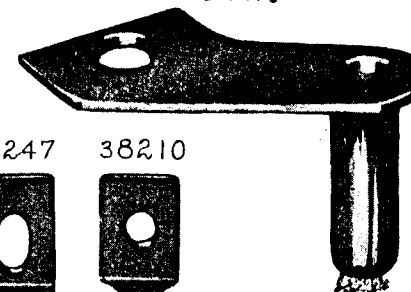
24292



38211



54110



46247



38210



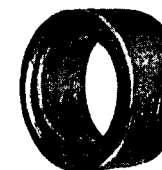
49092



64315



64351



59456



PLATE 9871—FULL SIZE

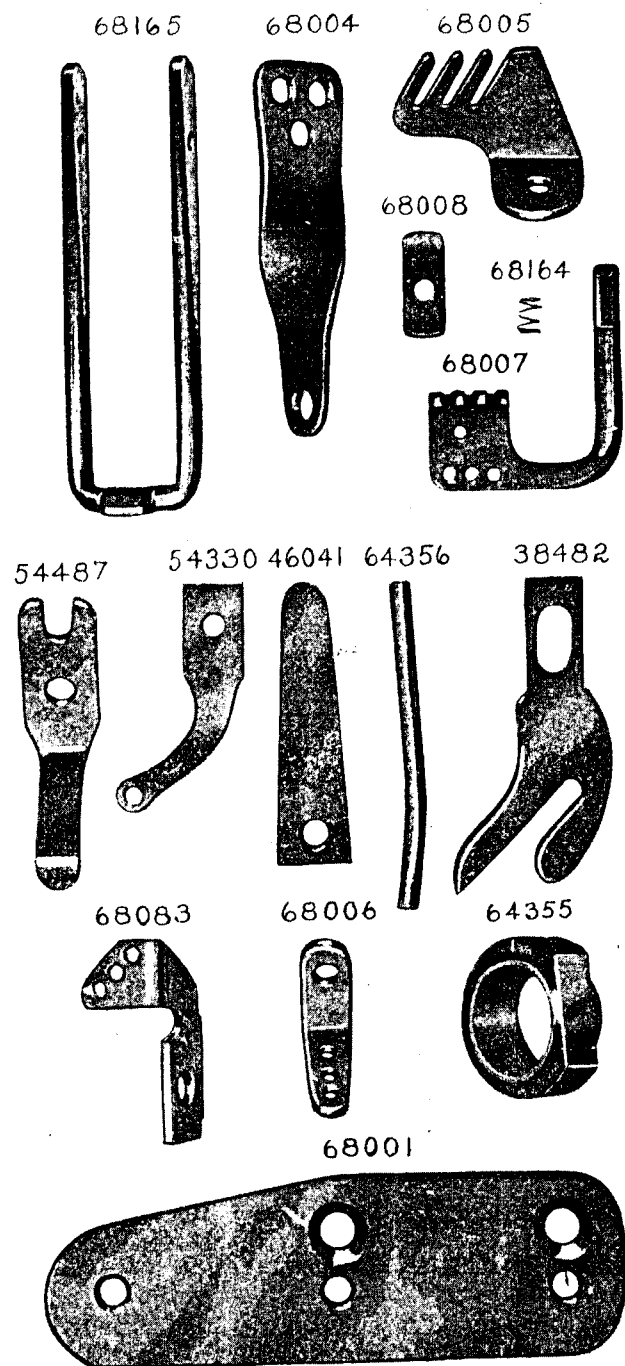


PLATE 9872—FULL SIZE

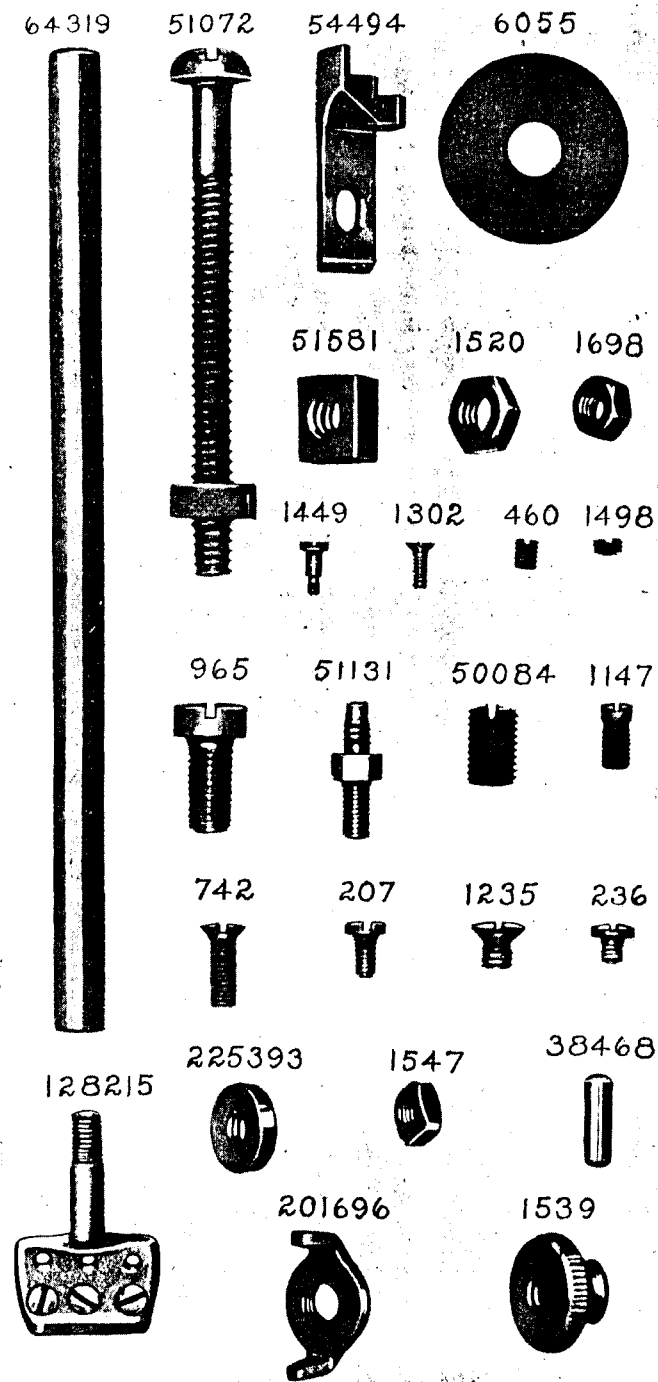
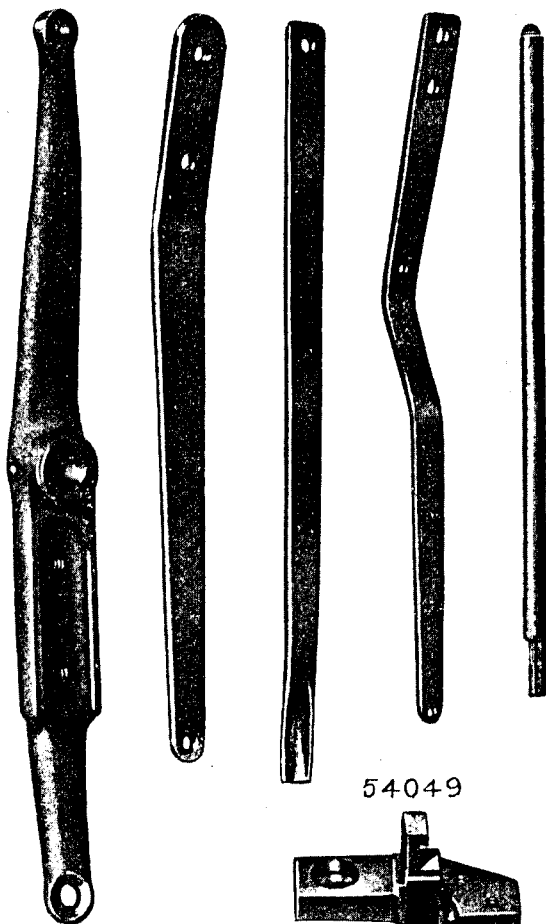
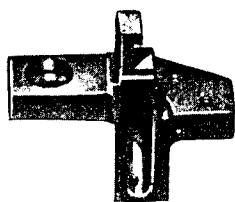


PLATE 9873—ONE-HALF SIZE

68208 68184 54040 54103 64330



54049



54026

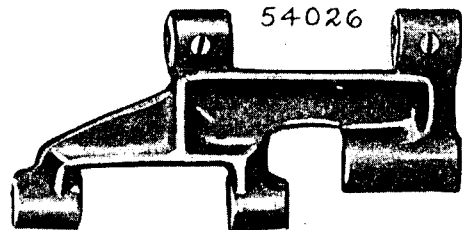
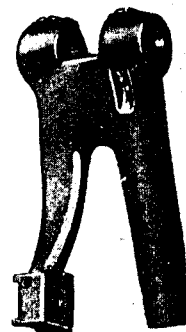
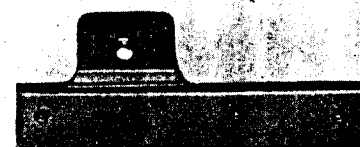


PLATE 9874—ONE-HALF SIZE

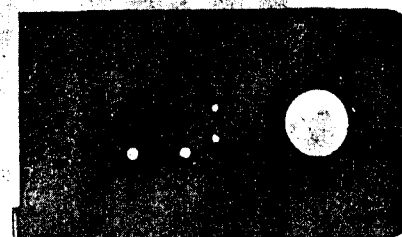
54488



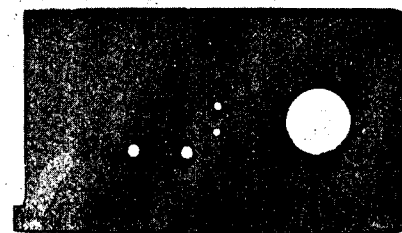
68002



54055



54057



54486



68003



64259

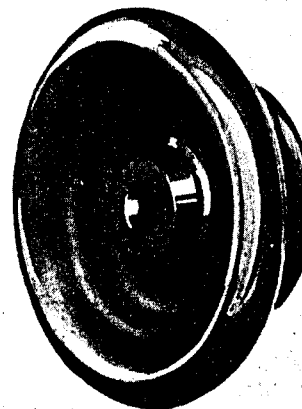
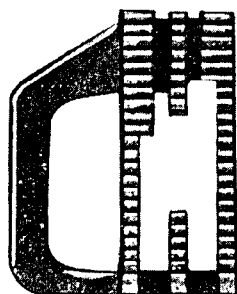


PLATE 9875—FULL SIZE

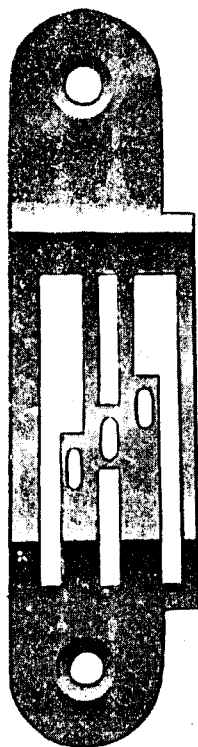
54489



68010



68073



68072

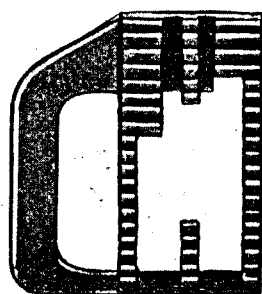
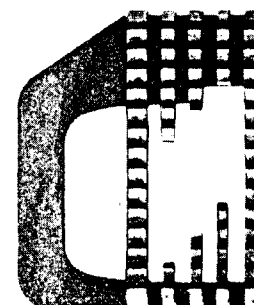
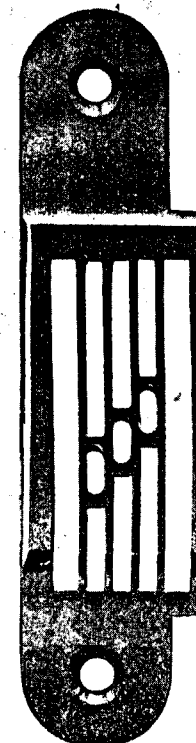


PLATE 9876—FULL SIZE

68162



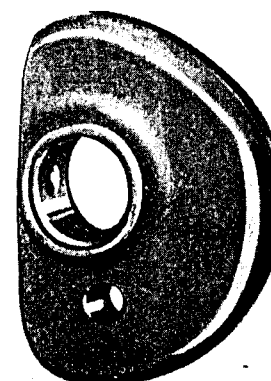
68163



54229



38475

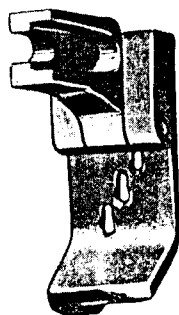


54080

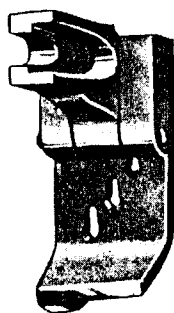


PLATE 9877—FULL SIZE

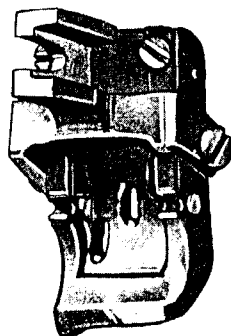
68027



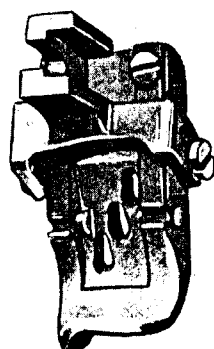
68203



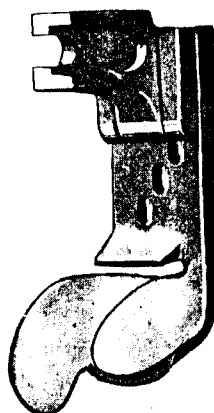
68088



54499



120754



68160



11184



68161



665



26276

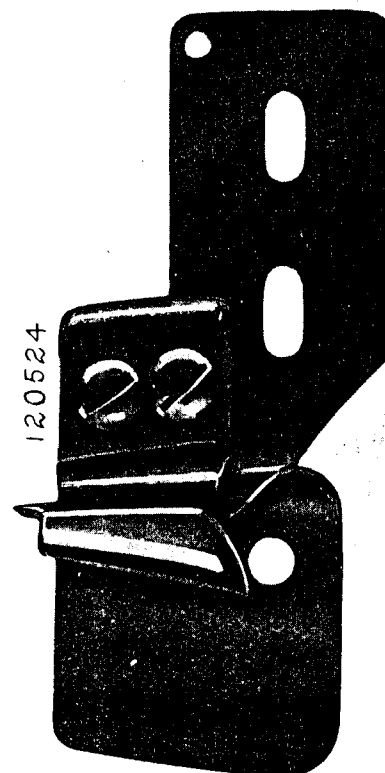


51065



PLATE 9878—FULL SIZE

120524



120707

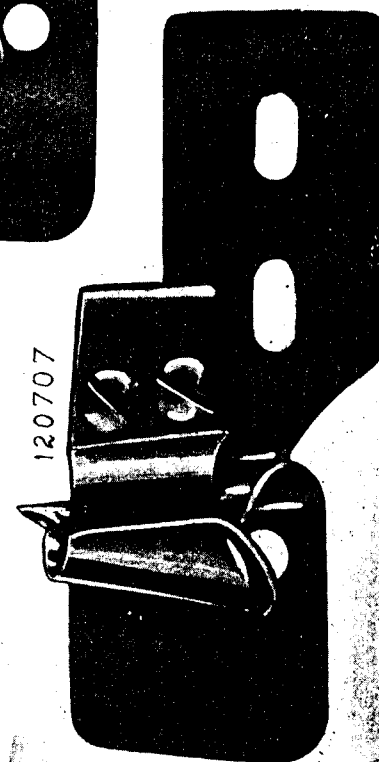
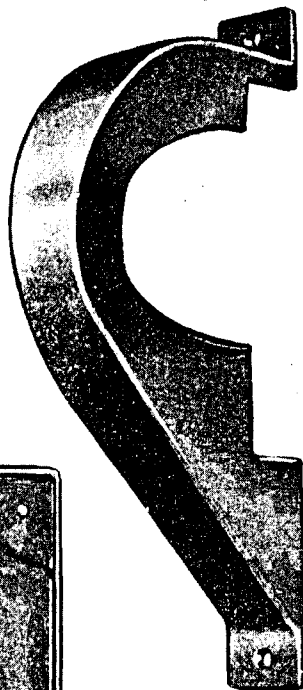


PLATE 9879—ONE-FOURTH SIZE

68222



68223

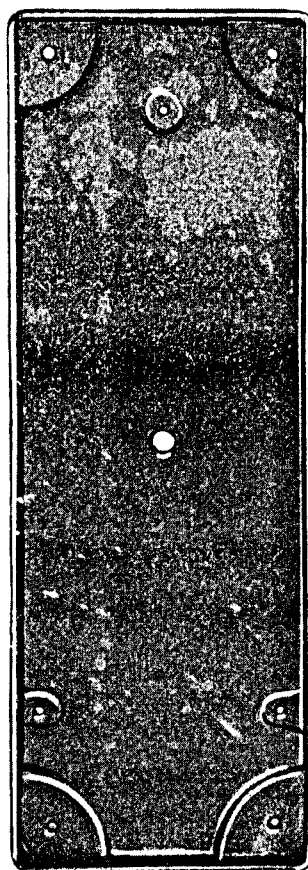
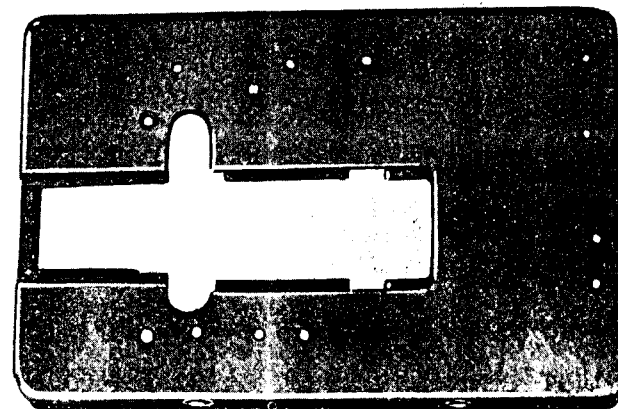


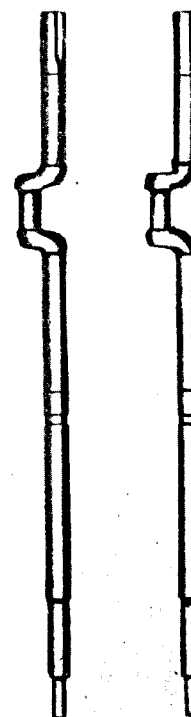
PLATE 9880—ONE-FOURTH SIZE

54011



54006

68110



54104

