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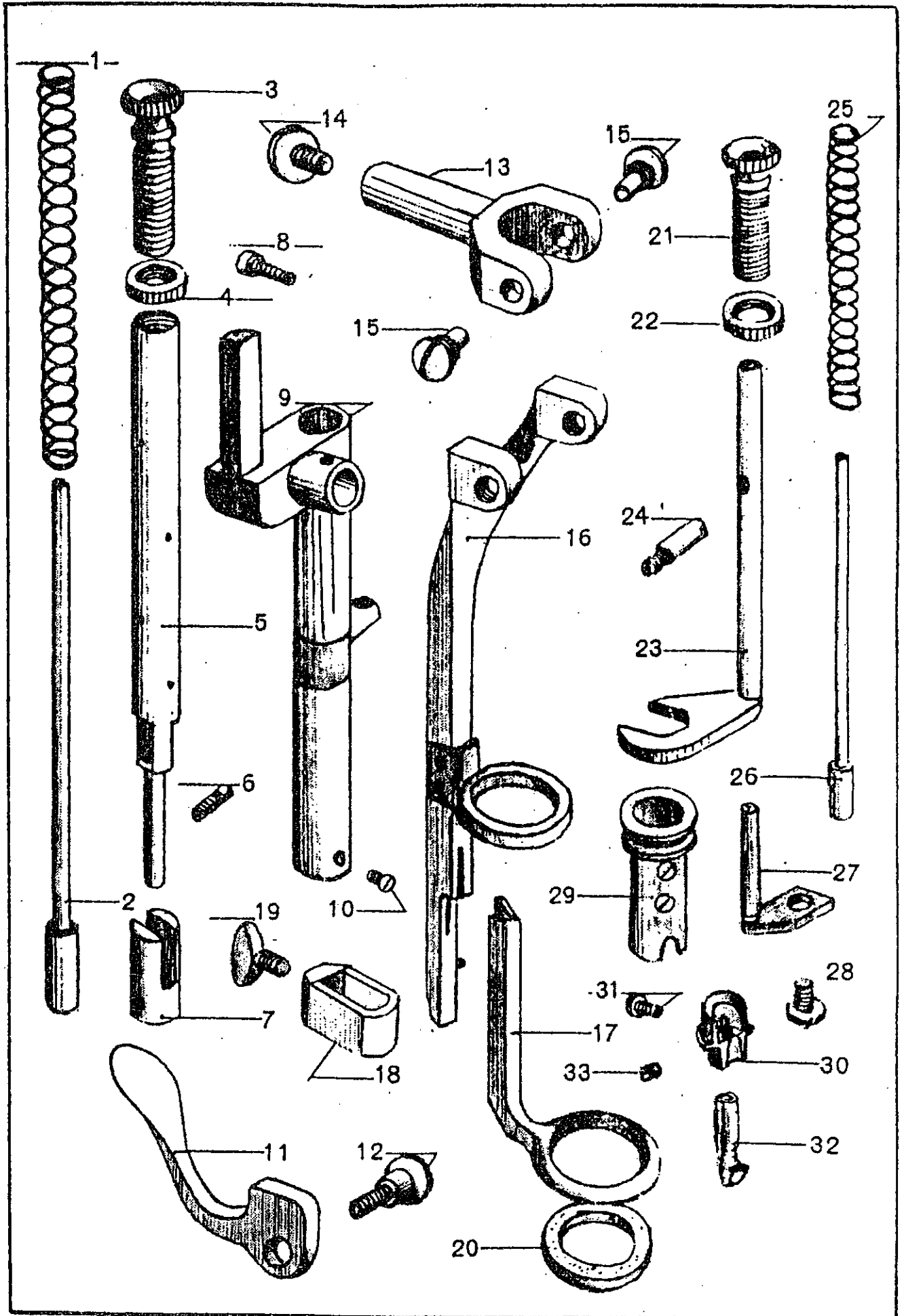
INDUSTRIAL SEWING MACHINES

MODEL EM550

**PARTS BOOK
INSTRUCTION MANUAL**

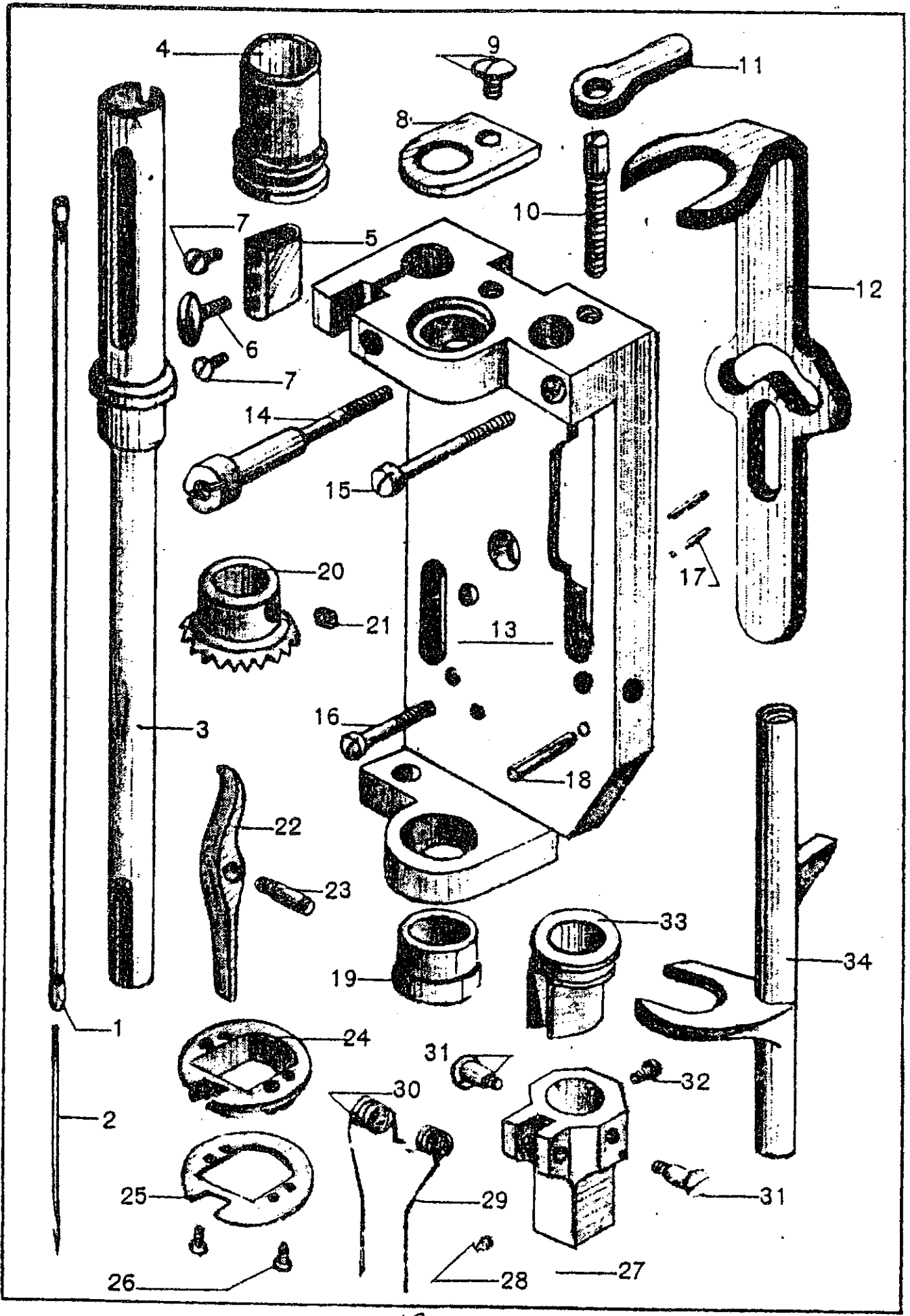
No. 1

Ref. No.	Parts No.	Description
1	8065	Presser Foot Slide Bar Spring
2	8066	Presser Foot Slide Bar Spring Plunger
3	8067	Presser Foot Slide Bar Thumb Screw (Pressure regulating)
4	8161	Presser Foot Slide Bar Thumb Screw Nut
5	8063	Presser Foot Slide Bar Guide
6	8138	Presser Foot Slide Bar Guide Set Screw
7	8064	Presser Foot Slide Bar Spring Stop
8	8139	Presser Foot Slide Bar Adjusting Screw
9	8322-A	Presser Foot Slide Bar
10	8140	Presser Foot Slide Bar Spring Stop Screw
11	8060-A	Presser Foot Lifter
12	8061	Presser Foot Lifter Hinge Screw
13	8069-A	Presser Foot Lever Swivel
14	8188	Presser Foot Lever Swivel Stop Screw
15	8070-A	Presser Foot Lever Swivel Hinge Screw
16	8323	Presser Foot Lever
17	8347-A	Presser Foot
18	8072	Presser Foot Clamp
19	8025	Presser Foot Clamp Thumb Screw
20	8073-C	Presser Foot Shoe (rubber)
21	8054	Nipple Carrier Thumb Screw
22	8160	Nipple Carrier Thumb Screw Nut
23	8317	Nipple Carrier
24	8051	Nipple Carrier Lifting Screw Stud
25	8052	Nipple Carrier Spring
26	8053	Nipple Carrier Extension
27	8055	Nipple Carrier Guide
28	8182	Nipple Carrier Guide Screw
29	8319	Nipple Carrier Sleeve with Set Screws
30	8320	Nipple Clamping Block
31	8339	Nipple Clamping Block Screw
32	8321	Nipple
33	8335	Nipple Screw



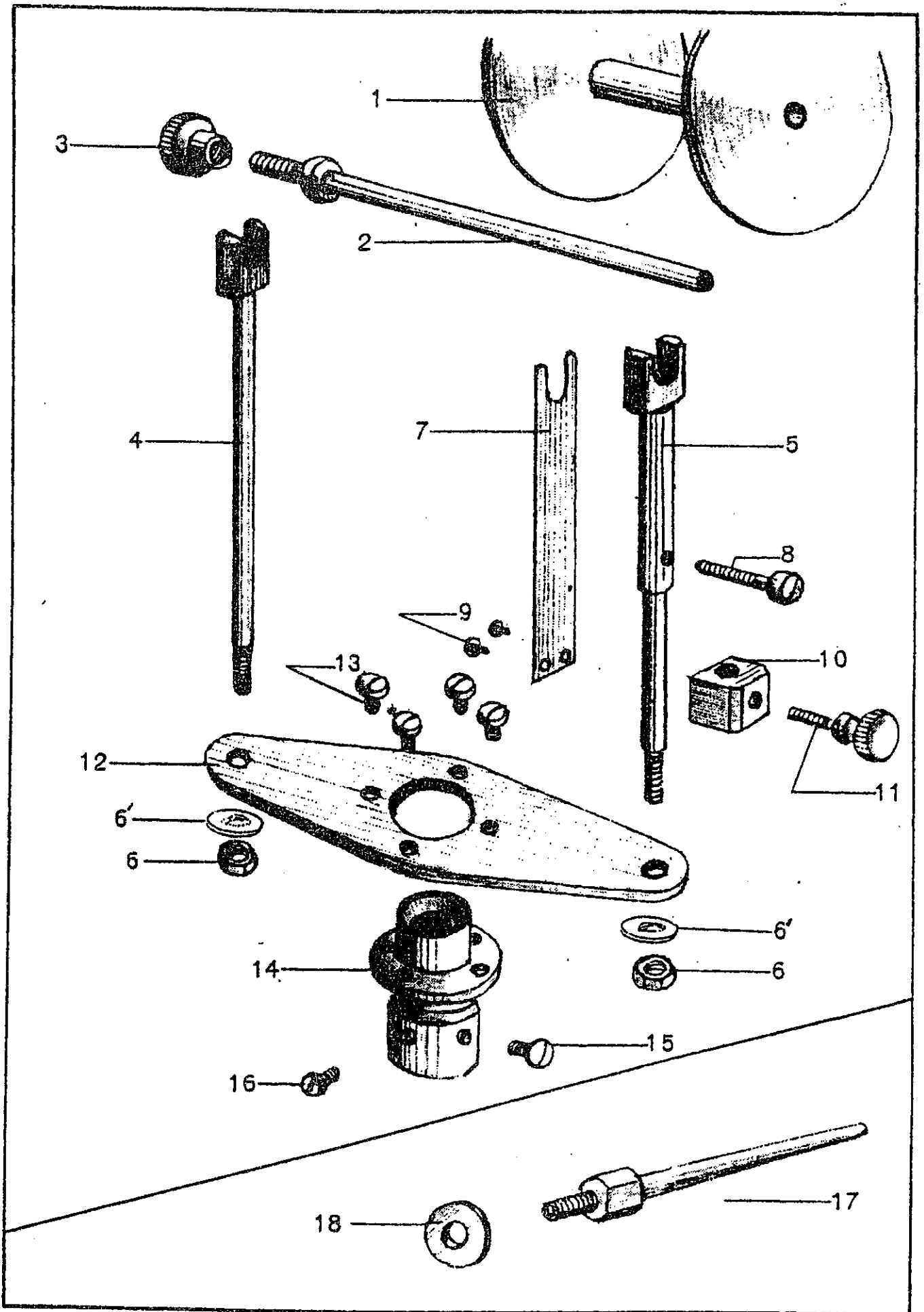
No. 2

Ref. No.	Parts No.	Description
1	8303-B	Needle Holder
2	8027S	Needle (253C)
3	8309-A	Arm Head Sleeve
4	8305	Needle Holder Operating Collar
5	8306	Needle Holder Guide Block
6	8307	Needle Holder Thumb Screw
7	8333	Needle Holder Guide Block Screw
8	8308-A	Arm Head Sleeve Cap
9	5176-A	Arm Head Sleeve Cap Screw
10	8047	Feed Regulating Screw
11	8048	Feed Regulating Screw Lock Lever Nut
12	8304	Needle Holder Operating Slide
13	8301	Arm Head
14	8020	Arm Head Screw (upper) (long)
15	8021	Arm Head Screw (upper) (short)
16	8022	Arm Head Screw (lower)
17	8150	Arm Head Position Pin
18	8145	Arm Head Position Pin
19	8302	Nipple Carrier Sleeve Bushing
20	8030	Arm Head Sleeve Gear with Set Screw
21	129-B	Arm Head Sleeve Gear Set Screw
22	8312	Feed Lever
23	8314	Feed Lever Hinge Screw Stud
24	8315	Feed Lever Bracket Guide
25	8316	Feed Lever Bracket Guide Cap
26	8136	Feed Lever Bracket Guide Cap Screw
27	8313	Feed Lever Bracket
28	8335	Feed Lever Bracket Set Screw
29	8036	Feed Recovering Spring (left)
30	8037	Feed Recovering Spring (right)
31	8038	Feed Recovering Spring Screw
32	124	Feed Lever Bracket Set Screw
33	8311	Feed Slide Block
34	8310-A	Feed Slide Bar



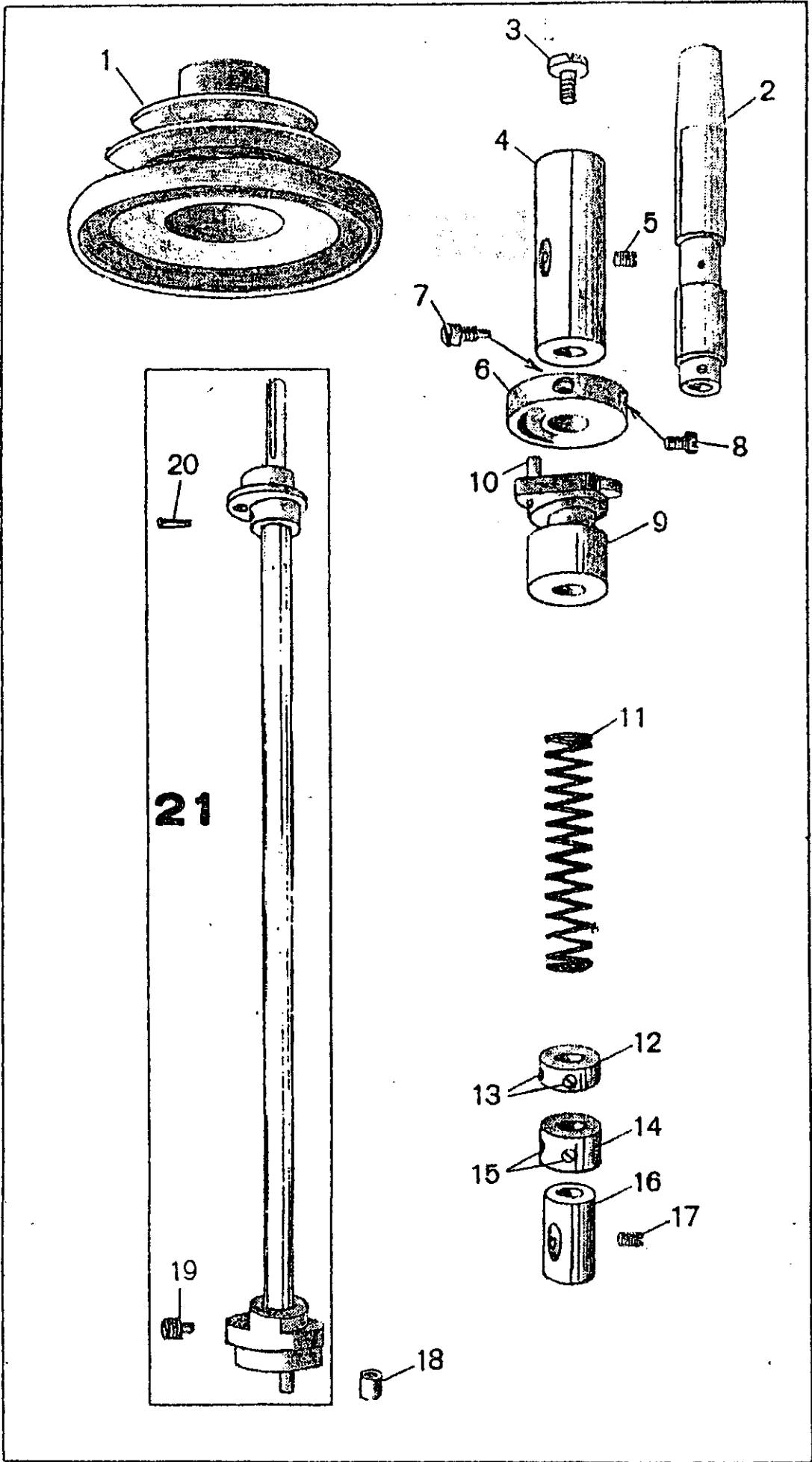
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Ref. No.	Parts No.	Description
1	8336	Spool
2	8331-A	Spool Spindle
3	8332	Spool Spindle Thumb Nut
4	8327	Spool Spindle Rod (small)
5	8328	Spool Spindle Rod (large)
6	4070	Spool Spindle Rod Nut
6'	8179	Spool Spindle Rod Spring Washer
7	8329	Spool Friction Spring
8	114-A	Spool Friction Spring Adjusting Screw
9	8140	Spool Friction Spring Screw
10	8330	Spool Friction Spring Block
11	123	Spool Friction Spring Block Thumb Screw
12	8326	Spool Spindle Rod Plate
13	5233-A	Spool Spindle Rod Plate Screw
14	8325	Spool Bracket
15	4308	Spool Bracket Set Screw
16	124	Spool Bracket Position Screw
17	8337	Spool Winder Spindle
18	5249	Spool Winder Spindle Washer

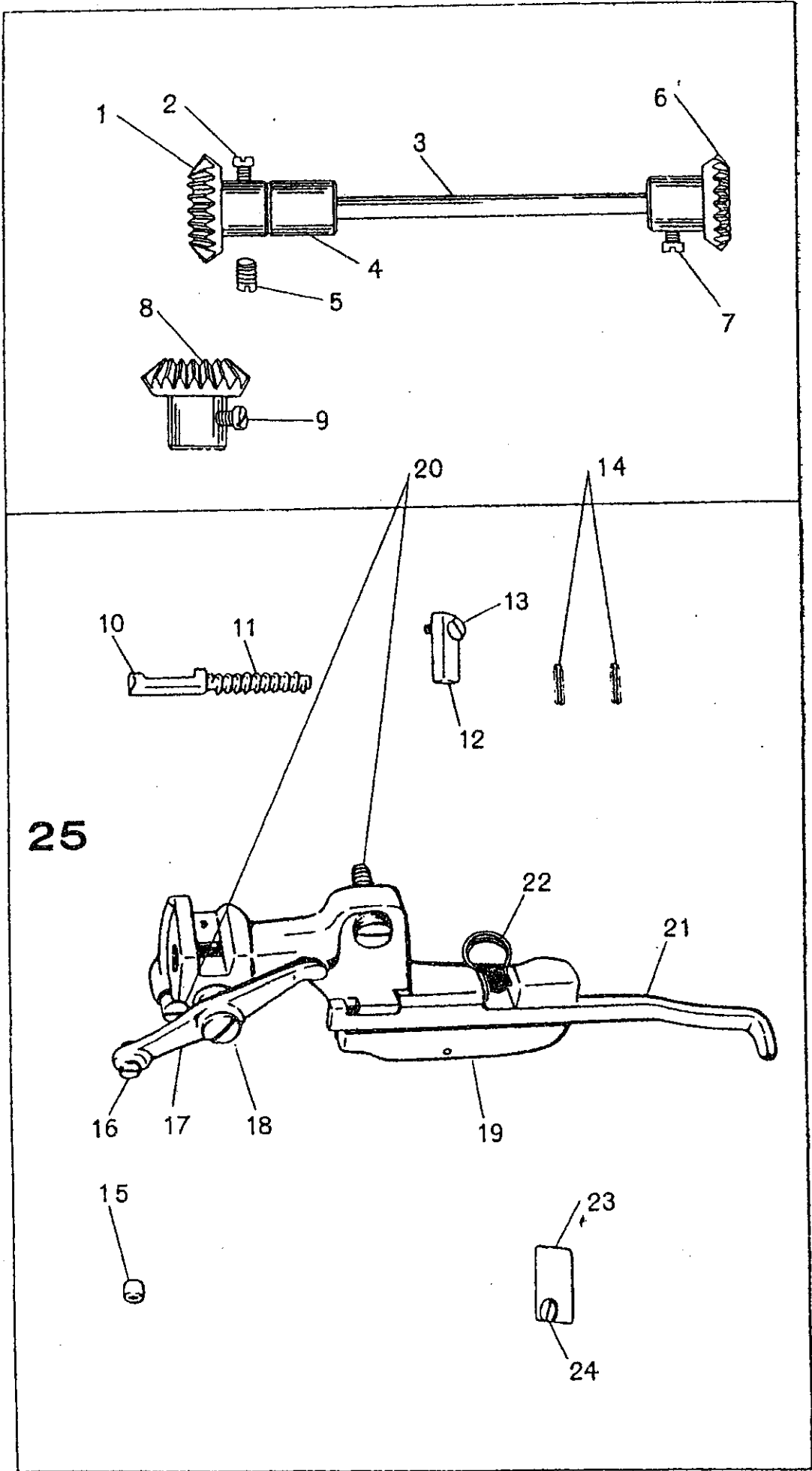


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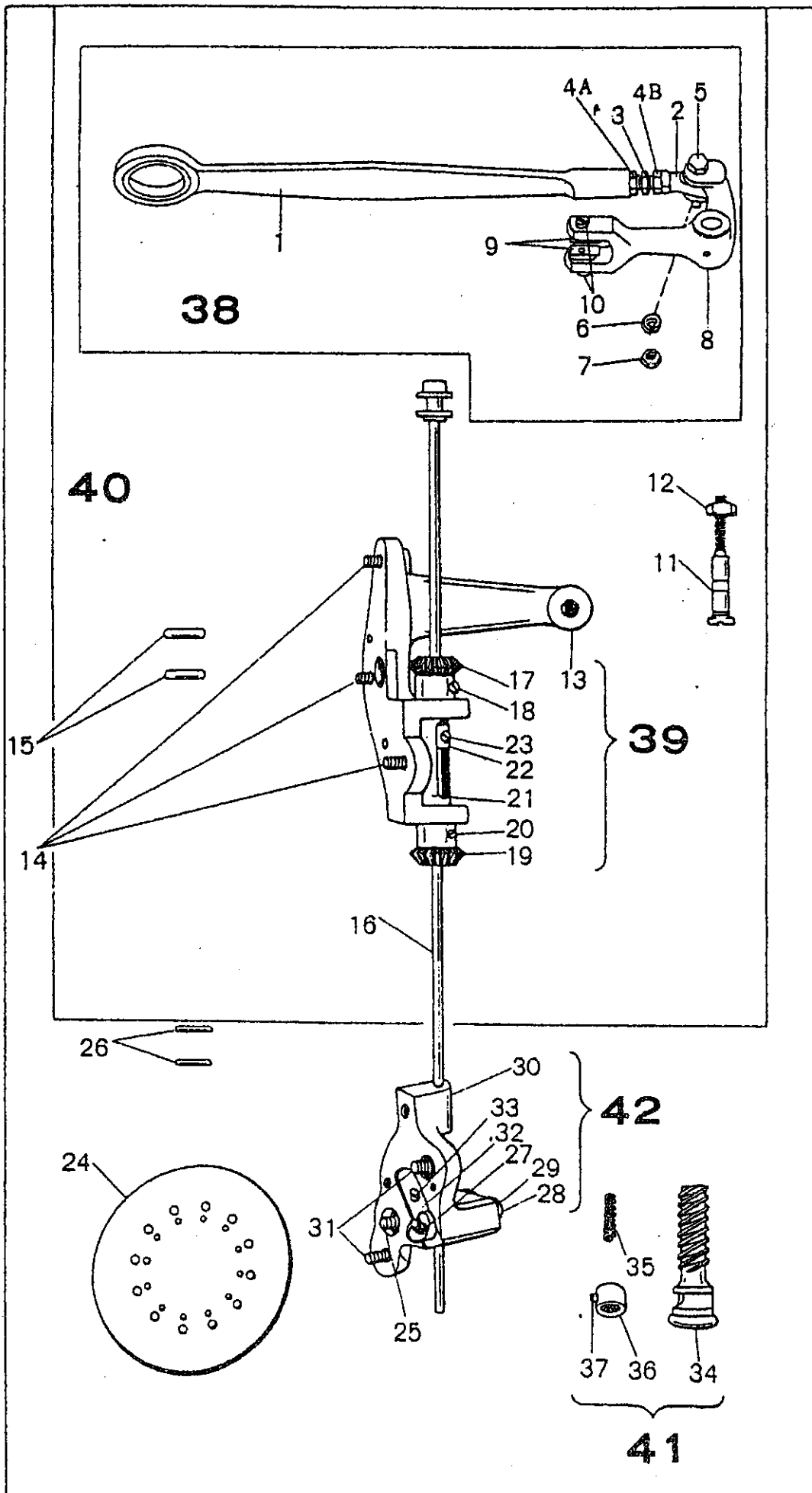
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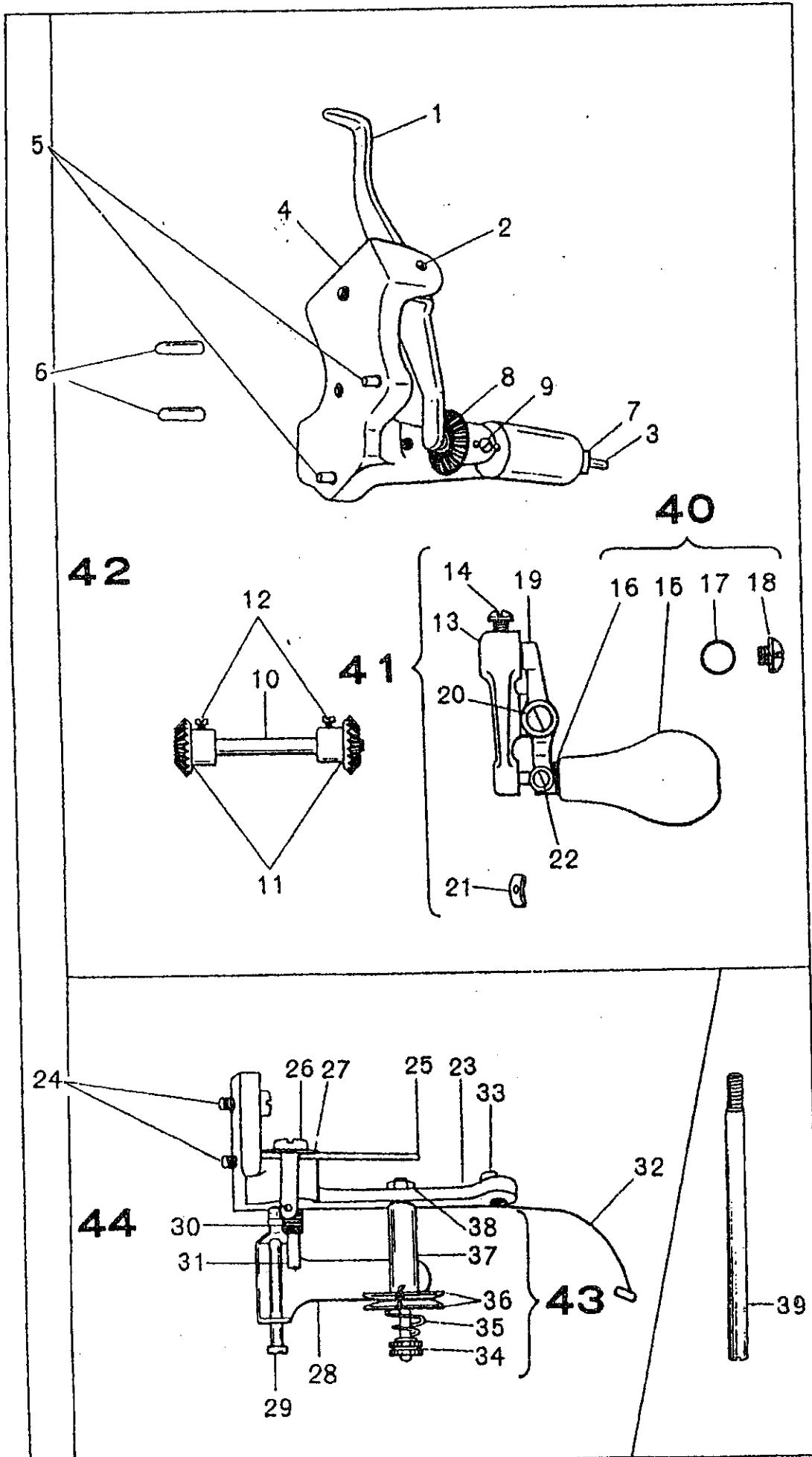
Ref. No.	Parts No.	Description
1	8017-B	Driving Pulley
2	8015	Driving Pulley Sleeve
3	8018	Driving Pulley Sleeve Screw
4	8016-A	Driving Pulley Sleeve Bushing
5	98-A	Driving Pulley Sleeve Bushing Screw
6	8012	Arm Shaft Driving Flange with Screws
7	8013	Arm Shaft Driving Flange Position Screw
8	8014	Arm Shaft Driving Flange Set Screw
9	8008	Stop Cam
10	8163-B	Stop Cam Driving stud
11	8009-A	Stop Cam Spring
12	8010	Stop Cam Spring Collar with Set Screws
13	132	Stop Cam Spring Collar Set Screw
14	5266	Arm Shaft Collar with Set Screws
15	132-B	Arm Shaft Collar Set Screw
16	8003-B	Arm Shaft Bushing
17	98-A	Arm Shaft Bushing Screw
18	8006	Needle Driving Cam Roller
19	8005-A	Needle Driving Cam Position Screw
20	8146	Looper Operating Cam Position Pin
21	813	Arm Shaft with Looper Operating Cam, Needle Driving Cam, Roller Stud, Position Pin and Position Screw



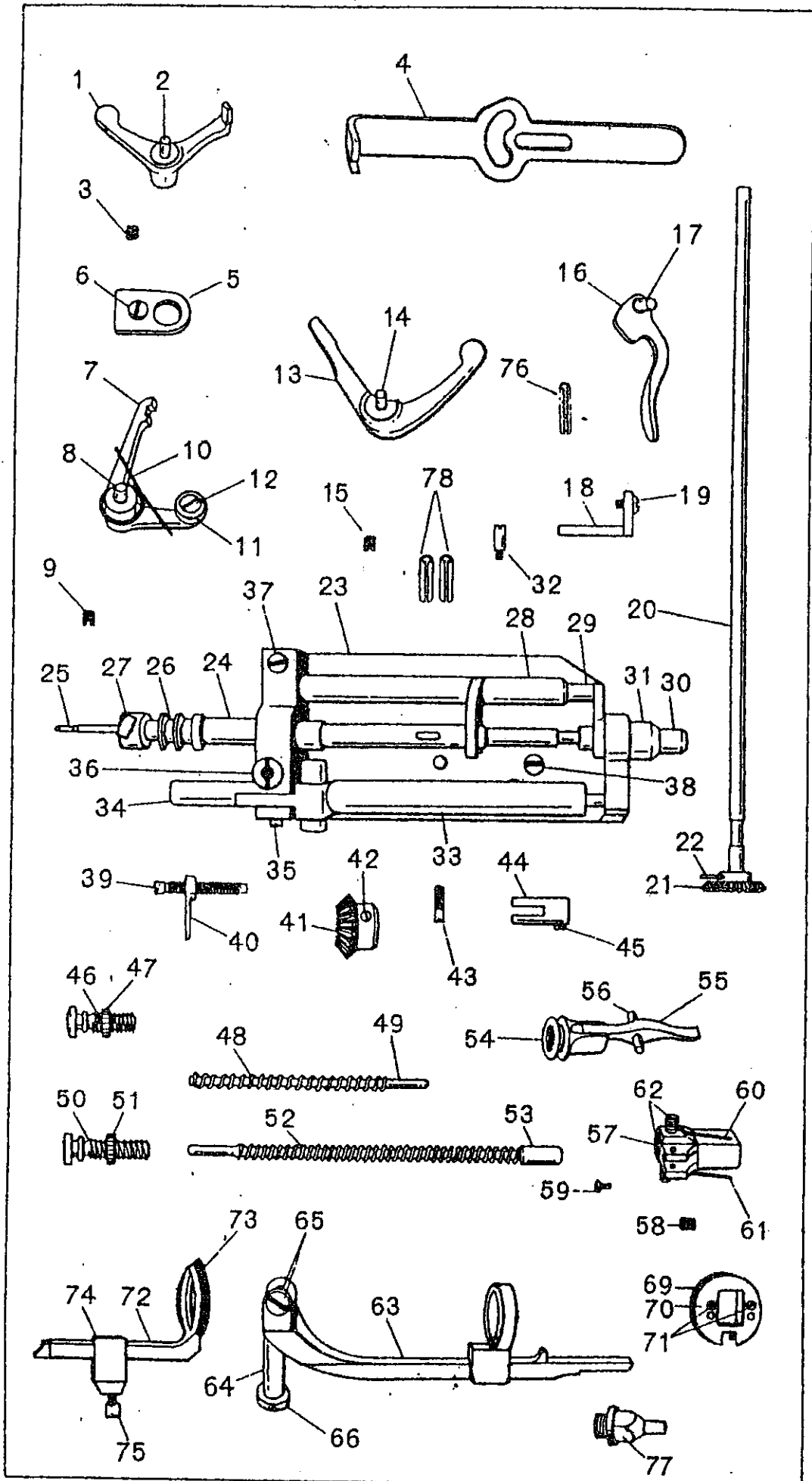
Ref. No.	Parts No.	Description
1	8110-A	Stitch Rotating Gear (upper) with Set Screw
2	8142	Stitch Rotating Gear (upper) Set Screw
3	8111	Stitch Rotating Gear Shaft
4	8180	Stitch Rotating Gear Shaft Bushing
5	132	Stitch Rotating Gear Shaft Bushing Screw
6	8112-B	Stitch Rotating Gear (lower) with Set Screw
7	8142	Stitch Rotating Gear (lower) Set Screw
8	8110-A	Feed Rotating Gear (upper) (rear) with Set Screw
9	8142	Feed Rotating Gear (upper) (rear) Set Screw
10	8079	Stop Bracket Interlocking Rod
11	8080	Stop Bracket Interlocking Rod Spring
12	8081	Stop Bracket Interlocking Stop Block
13	121	Stop Bracket Interlocking Stop Block Screw
14	8159	Stop Bracket Position Pin
15	8077	Stop Cam Roller
16	8078	Stop Cam Roller Screw Stud
17	8075	Stop Cam Rocking Lever
18	8076	Stop Cam Rocking Lever Hinge Screw
19	8074	Stop Bracket
20	8172	Stop Bracket Screw
21	8082	Starting Trip Lever Slide
22	8084	Starting Trip Lever Slide Spring
23	8083	Starting Trip Lever Slide Cap
24	124	Starting Trip Lever Slide Cap Screw
25	801	Stop Bracket Complete, (Ref.Nos.) 10, 11, 12, 13, 15, 16, 17, 18, 19, 21, 22, 23, & 24



Ref. No.	Parts No.	Description
1	8085-B	Looper Operating Connection (Cam end)
2	8177	Looper Operating Connection Joint
3	8174	Looper Operating Connection Joint Pitman
4A	8175	Looper Operating Connection Joint Pitman Nut (Upper)
4B	8176	Looper Operating Connection Joint Pitman Nut (Lower)
5	8178	Looper Operating Connection Joint Hinge Stud
6	8179	Looper Operating Connection Joint Hinge Stud Spring Washer
7	5207	Looper Operating Connection Joint Hinge Stud Nut
8	8089-A	Looper Operating Bell Crank
9	8092	Looper Operating Bell Crank Hinge Block
10	8093	Looper Operating Bell Crank Hinge Block Screw
11	8090	Looper Operating Bell Crank Hinge Screw
12	8091	Looper Operating Bell Crank Hinge Screw Nut
13	8088	Looper Operating Bell Crank Bracket
14	8143	Looper Operating Bell Crank Bracket Screw
15	8149	Looper Operating Bell Crank Bracket Position Pin
16	8094	Looper Operating Shaft
17	8096-A	Looper Operating Shaft Sleeve Gear with Set Screw
18	8142	Looper Operating Shaft Sleeve Gear Set Screw
19	8097-A	Looper Operating Shaft Sleeve and Gear with Set Screw
20	8142	Looper Operating Shaft Sleeve and Gear Set Screw
21	8095-B	Looper Operating Shaft Guide
22	8098-B	Looper Operating Shaft Guide Block
23	129-B	Looper Operating Shaft Guide Block Set Screw
24	8106	Needle Plate
25	8107	Needle Plate Clamping Thumb Screw
26	8150	Presser Foot Lifting Stop Pin
27	8100-A	Looper
28	8152	Looper Collar with Set Screw
29	129-B	Looper Collar Set Screw
30	8099	Looper Bracket
31	8158	Looper Bracket Screw
32	8101	Looper Position Plate
33	124	Looper Position Plate Screw
34	8102	Looper Operating Gear (spiral)
35	8103	Looper Operating Gear Spring
36	8104	Looper Operating Collar with Set Screw
37	8105	Looper Operating Collar Set Screw
38	802-A	Looper Operating Connection Complete, (Ref. Nos.) 1, 2, 3, 4A, 4B, 5, 6, 7, 8, Two 9 & Two 10
39	803	Looper Operating Bell Crank Bracket (Ref.No.) 13 with 17 to 23
40	804-A	Looper Operating Bell Crank Bracket Complete, (Ref. Nos.) 11, 12, 16, 38 & 39
41	805	Looper Operating Gear (Ref. No.) 34 with 35, 36 & 37
42	806	Looper Bracket Complete, (Ref. Nos.) 27, 28, 29, 30, 32 & 33



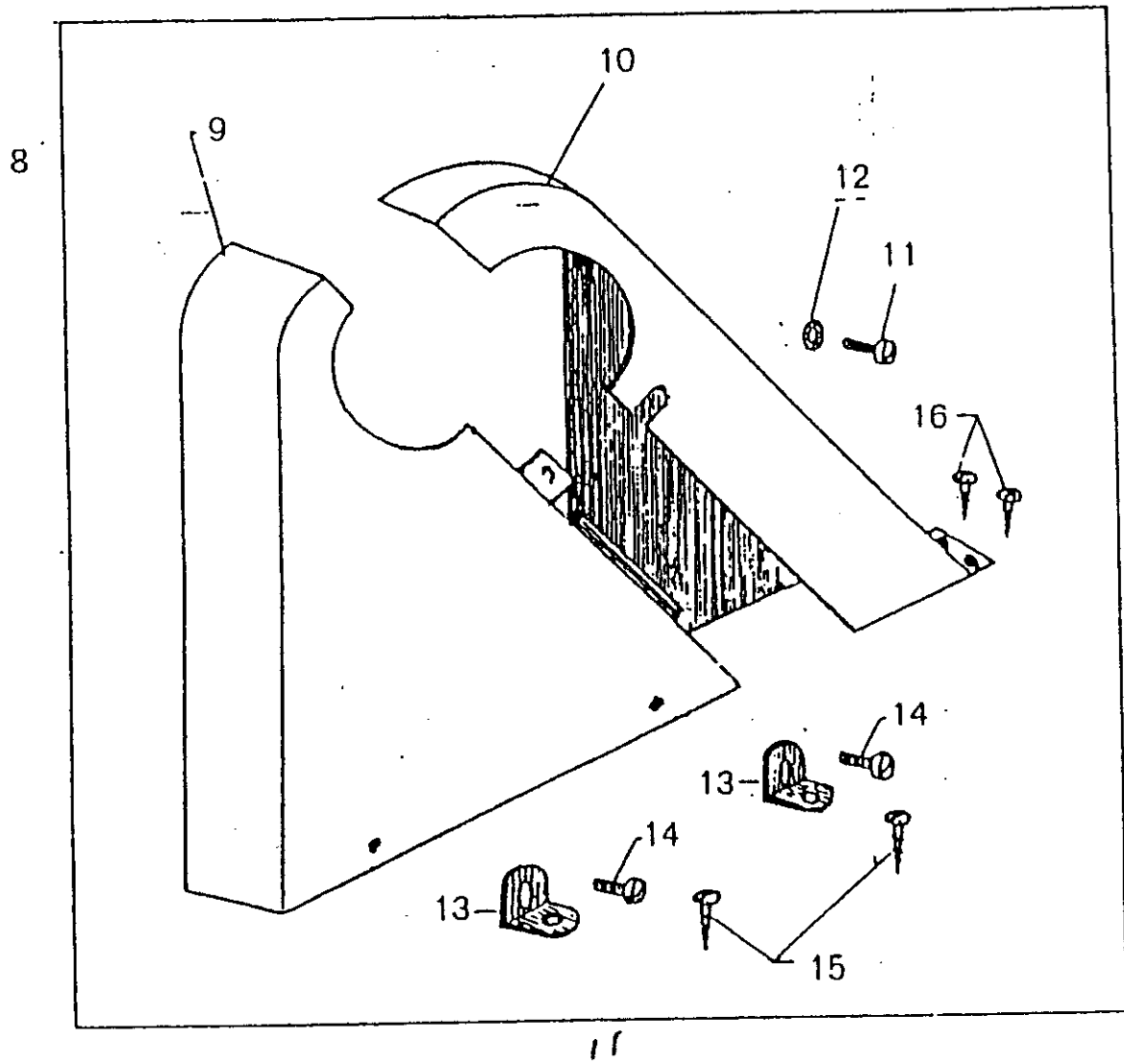
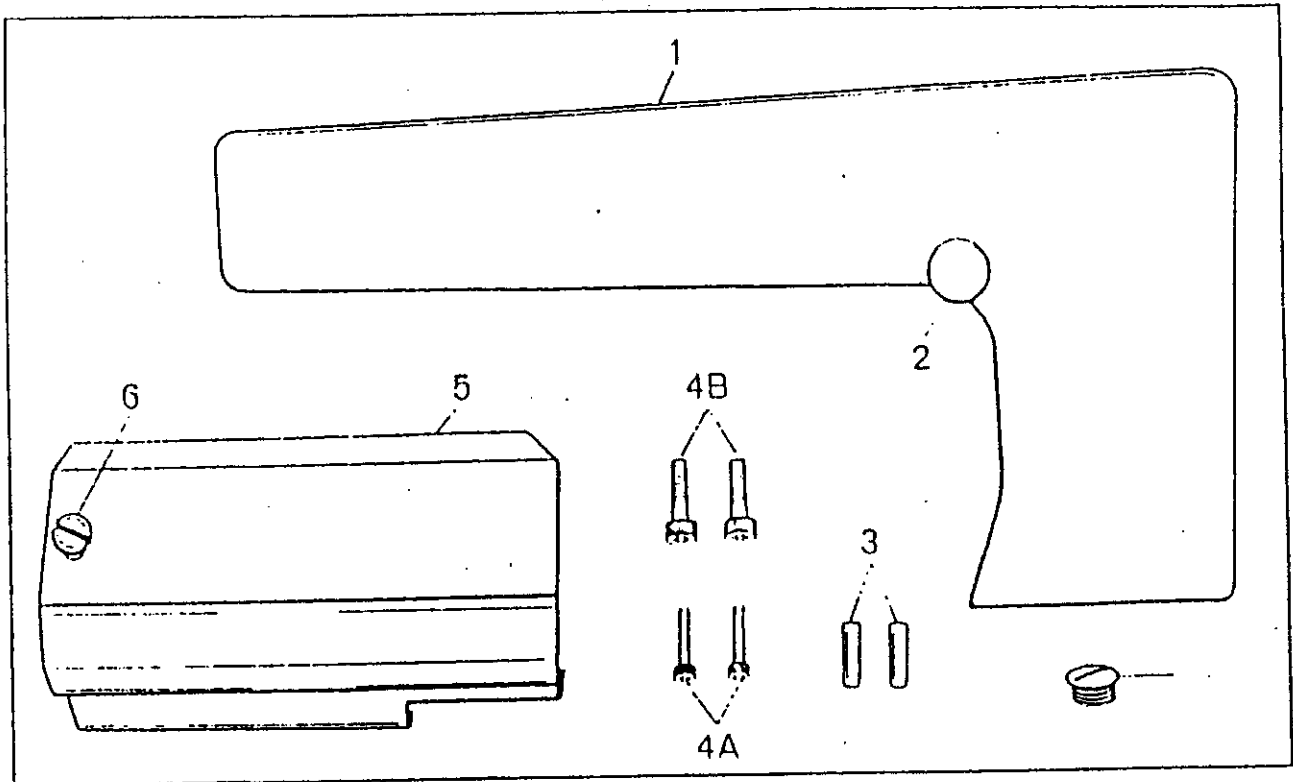
Ref. No.	Parts No.	Description
1	8123	Starting Trip Lever (intermediate)
2	8124	Starting Trip Lever (intermediate) Hinge Screw
3	8122	Starting Trip Lever Rod
4	8113	Stitch Rotating Gear Bracket
5	8143	Stitch Rotating Gear Bracket Screw
6	8149	Stitch Rotating Gear Bracket Position Pin
7	8114-A	Stitch Rotating Hand Lever Shaft
8	8096-A	Stitch Rotating Hand Lever Shaft Gear with Set Screw
9	8142	Stitch Rotating Hand Lever Shaft Gear Set Screw
10	8117	Stitch Rotating Gear Bracket Shaft (intermediate)
11	8110-A	Stitch Rotating Gear Bracket Shaft (intermediate) Gear (back or front) with Set Screw
12	8142	Stitch Rotating Gear Bracket Shaft (intermediate) Gear (back or front) Set Screw
13	8115-A	Stitch Rotating Hand Lever with Set Screw
14	5176-A	Stitch Rotating Hand Lever Set Screw
15	8118	Stitch Rotating Hand Lever Handle
16	8116	Stitch Rotating Hand Lever Handle Sleeve
17	5070	Stitch Rotating Hand Lever Handle Sleeve Washer
18	8141	Stitch Rotating Hand Lever Handle Sleeve Screw
19	8119	Starting Trip Lever
20	8045	Starting Trip Lever Hinge Screw
21	8120	Starting Trip Lever Block
22	8121	Starting Trip Lever Block Screw Stud
23	8125	Tension Bracket
24	8143	Tension Bracket Screw
25	8131	Tension Regulating Lever
26	8132-A	Tension Regulating Lever Hinge Screw
27	4140-A	Tension Regulating Lever Hinge Screw Spring Washer
28	8127	Tension Regulating Plate
29	8128	Tension Regulating Plate Hinge Screw
30	8129-A	Tension Regulating Spring
31	8130-A	Tension Regulating Spring Screw Stud
32	8133-A	Thread Controller Spring
33	121	Thread Controller Spring Screw
34	81	Tension Thumb Nut
35	5267-A	Tension Spring
36	5190-A	Tension Disc
37	8164	Tension Stud
38	5207	Tension Stud Nut
39	8126	Spool Screw Stud
40	807	Stitch Rotating Hand Lever Handle Sleeve (Ref. No.) 16 with 15, 17 & 18
41	808	Stitch Rotating Hand Lever (Ref. No.) 13 with 14, 19, 20, 21, 22 & 40
42	809	Stitch Rotating Gear Bracket Complete, (Ref. Nos.) 1, 2, 3, 4, 7, 8, 9, 10, Two 11, Two 12 & 41
43	810	Tension Complete, (Ref. Nos.) 34, 35, Two 36, 37 & 38
44	811	Tension Bracket Complete, (Ref. Nos.) 23, 25, 26, 27, 28, 29, 30, 31, 32, 33 & 43



Ref. No.	Parts No.	Description
1	8057	Nipple Carrier Bell Crank
2	8058	Nipple Carrier Bell Crank Hinge Stud
3	5225-C	Nipple Carrier Bell Crank Hinge Stud Set Screw
4	8023	Needle Operating Slide
5	8028-A	Arm Head Sleeve Cap
6	5176-A	Arm Head Sleeve Cap Screw
7	8042	Feed Bell Crank
8	8043	Feed Bell Crank Hinge Stud †
9	5225-C	Feed Bell Crank Hinge Stud Set Screw
10	8046	Feed Bell Crank Spring
11	8044	Feed Bell Crank Roller
12	8045	Feed Bell Crank Roller Screw
13	8059	Presser Foot Slide Bell Crank
14	8058	Presser Foot Slide Bell Crank Hinge Stud
15	5225-C	Presser Foot Slide Bell Crank Hinge Stud Set Screw
16	8060-A	Presser Foot Lifter
17	8061	Presser Foot Lifter Hinge Screw
18	8055	Nipple Carrier Guide
19	8182	Nipple Carrier Guide Screw
20	8108	Feed Rotating Shaft
21	8109	Feed Rotating Shaft Gear
22	8147	Feed Rotating Shaft Gear Position Pin
23	8019	Arm Head
24	8029-B	Arm Head Sleeve
25	8026-A	Needle Holder
26	8024	Needle Holder Clamping Sleeve
27	8025	Needle Holder Clamping Sleeve Thumb Screw
28	8031	Feed Slide Bar
29	8049	Nipple Carrier
30	8050	Nipple Carrier Sleeve
31	8151	Nipple Carrier Sleeve Bushing
32	8051	Nipple Carrier Lifting Screw Stud
33	8026-B	Presser Foot Slide Bar
34	8063	Presser Foot Slide Bar Guide
35	8139	Presser Foot Slide Bar Adjusting Screw
36	8020	Arm Head Screw (upper) (long)
37	8021	Arm Head Screw (upper) (short)
38	8022	Arm Head Screw (lower)
39	8047	Feed Regulating Screw
40	8048	Feed Regulating Screw Lock Lever Nut
41	8030	Arm Head Sleeve Gear with Set Screw
42	129-B	Arm Head Sleeve Gear Set Screw
43	8138	Presser Foot Slide Bar Guide Set Screw
44	8064	Presser Foot Slide Bar Spring Stop
45	8140	Presser Foot Slide Bar Spring Stop Screw
46	8054	Nipple Carrier Thumb Screw

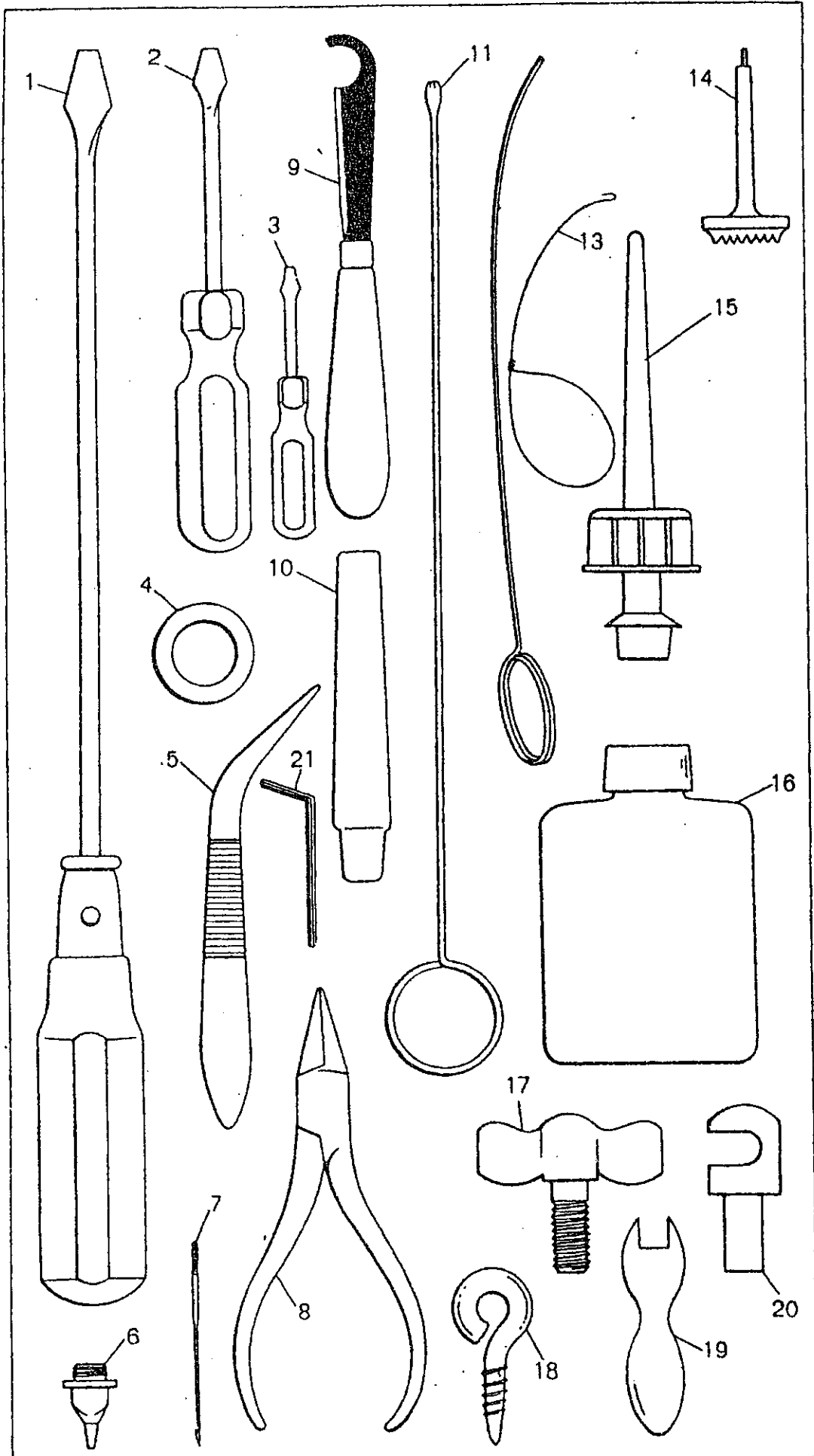
(pressure regulating)

47	8160	Nipple Carrier Thumb Screw Nut
48	8052	Nipple Carrier Spring
49	8053	Nipple Carrier Extension
50	8067	Presser Foot Slide Bar Thumb Screw (pressure regulating)
51	8161	Presser Foot Slide Bar Thumb Screw Nut
52	8065	Presser Foot Slide Bar Spring
53	8066	Presser Foot Slide Bar Spring Plunger
54	8033	Feed Slide Block (for ES-1114-1/S)
	8033-A	Feed Slide Block (for ES-1114-2/S)
55	8034-A	Feed Lever
56	8144	Feed Lever Hinge Pin
57	8035	Feed Lever Bracket
58	129-B	Feed Lever Bracket Set Screw
59	124	Feed Lever Bracket Set Screw
60	8036	Feed Recovering Spring (left)
61	8037	Feed Recovering Spring (right)
62	8038	Feed Recovering Spring Screw
63	8068	Presser Foot Lever with Feed Lever Bracket Guide Bearing and Pin
64	8069-A	Presser Foot Lever Swivel
65	8070-A	Presser Foot Lever Swivel Hinge Screw
66	8188	Presser Foot Lever Swivel Stop Screw
69	8039	Feed Lever Bracket Guide
70	8040	Feed Lever Bracket Guide Cap
71	8136	Feed Lever Bracket Guide Cap Screw
72	8071-A	Presser Foot
73	8073-A	Presser Foot Shoe (rubber)
74	8072	Presser Foot Clamp
75	8025	Presser Foot Clamp Thumb Screw
76	8145	Arm Head Position Pin
77	8056-4	Nipple
78	8150	Arm Head Stop Spring Pin



Ref. No.	Parts No.	Description
1	8135	Arm Side Cover
2	123	Arm Side Cover Thumb Screw
3	8154	Arm Position Pin
4A	8153-A	Arm Screw (short)
4B	8153-B	Arm Screw (long)
5	8134	Arm Head Cover
6	5227	Arm Head Cover Thumb Screw
7	8181	Arm Screw
* 8	816	Belt Cover Assembly (Ref. Nos 8-16)
* 9	8183-1	Belt Cover (Left)
* 10	8183-2	Belt Cover (Right)
* 11	5276	Belt Cover Set Screw
* 12	5178	Belt Cover Washer
* 13	11554	Belt Cover Bracket
* 14	5233	Belt Cover Bracket Set Screw
* 15	11557	Belt Cover Bracket Wood Screw
* 16	8184	Belt Cover Wood Screw

*EXTRA ACCESSORIS



Ref. No.	Parts No.	Description
	1 AC 01	Screw Driver
	2 AC 02	Screw Driver
	3 AC 03	Screw Driver
	4 8073-A	Presser Foot Shoe (rubber)
※	5 8170	Tweezers
※	6 8056-1	Nipple
※	8056-2	Nipple
※	8056-3	Nipple
	8056-5	Nipple
※	8056-6	Nipple
	7 8027S	Needle (253C)
	8 8171	Pliers
※	9 8168	Thread Knife
※	10 8169	Machine Rest Pin (wood)
	11 8167	Cleaning Wire
	13 8156	Thread Wire
	14 8071-B-B	Presser Foot (spur)
	15 AC 04A	Oiler
	16 AC 05	Oil
※	17 8157	Bed Clamping Thumb Screw
※	18 8166	Screw Eye
	19 8155	Nipple Wrench
	20 8165	Machine Hinge Connection
	21 AC 06	Wrench (3m/m)

※ Extra Accessories

INSTRUCTION MANUAL

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DESCRIPTION

Series make the single thread chain stitch and can be quickly adjusted to make the drop or moss stitch without unthreading the machine. It is designed for ornamenting or embroidering curtains, upholstery, dresses, scarfs, gloves, table covers, lace, etc. The machine also can make linen and towels for hotels, etc., by stitching a name into the material.

The thread may be of cotton, wool, worsted, silk, metal and other threads of similar adaptability. A large variety of fabrics can be embroidered, ranging from fine chiffon to china silk and cloth.

The usual method of producing embroidered designs is to follow a pattern that has been perforated, stamped or traced on the fabric, but with practice the operator can produce embroidery designs without pre-marking the fabric.

SPEED

When first operating this machine, the best results can be obtained by running the machine at approximately 800 stitches per minute. The speed can be increased as the operator becomes more proficient and the nature of the work permits.

TO OIL THE MACHINE

To insure easy running and prevent unnecessary wear of the parts which are in movable contact, the machine requires oiling.

Oil should be applied to the places designated by unlettered arrows in Figs. 1, 2, 9 and 10.

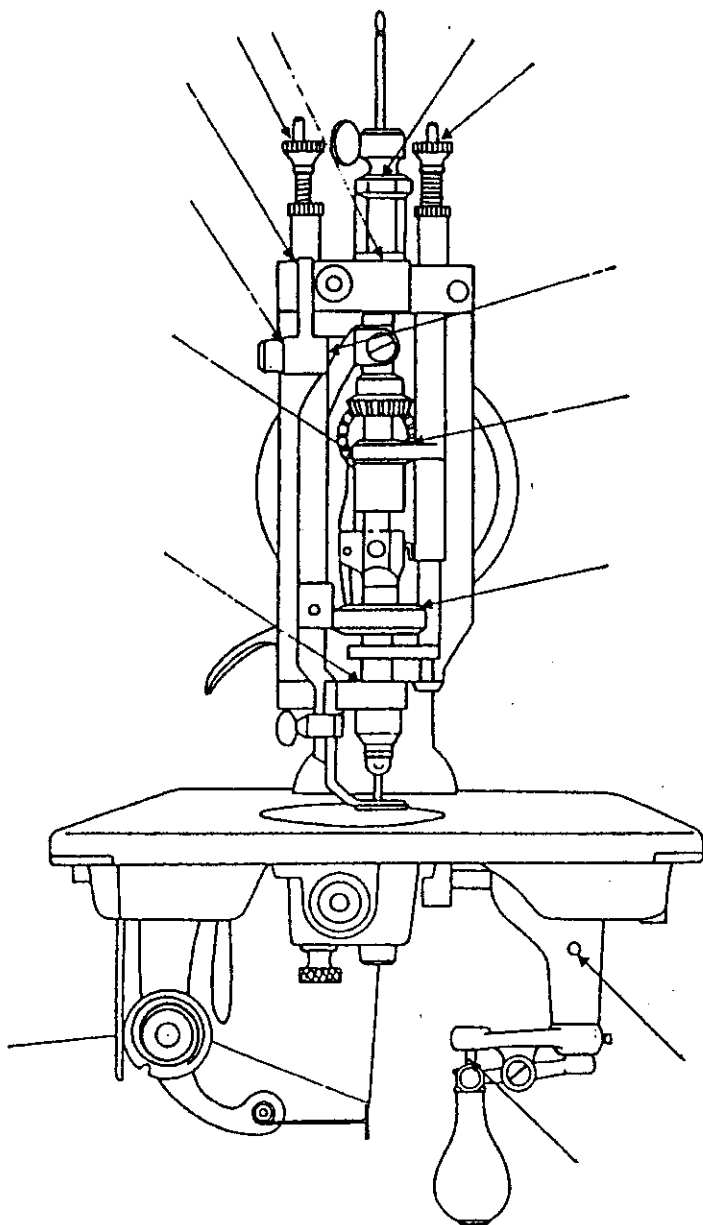


Fig. 1. End View of Machine Showing Oiling Points.

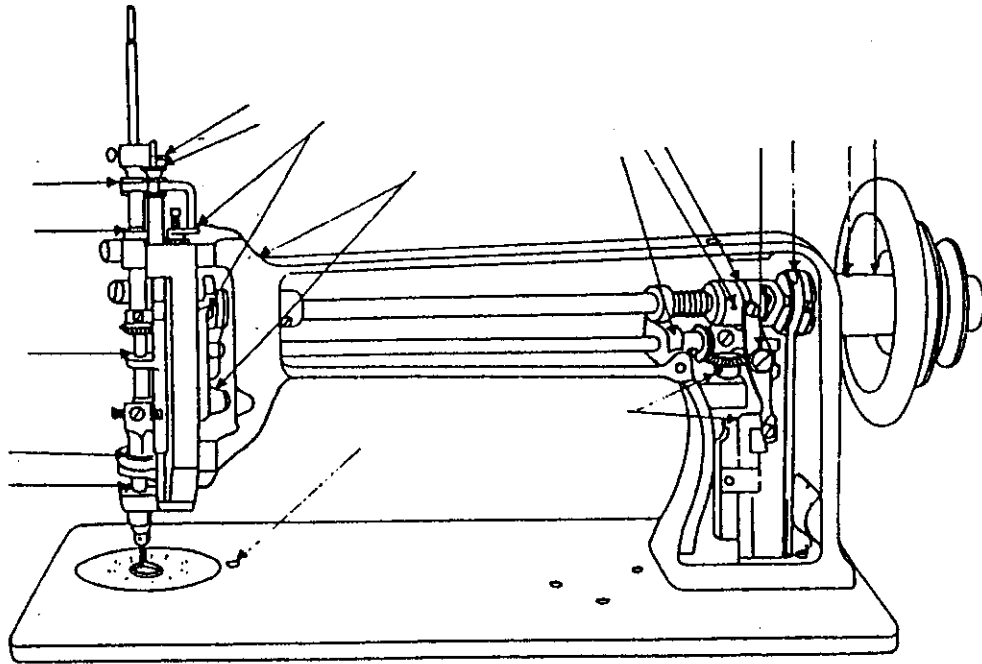


Fig. 2. Oiling Points at the Front of the Machine

Fig. 2 shows the arm cover removed for the purpose of oiling. This arm cover can be removed after taking out thumb screw W, Fig. 8.

If the machine is used continuously, oil should be applied at least once each day.

NEEDLES, NIPPLES AND THREAD

Needles for **series** are system 253C and are available in Sizes from 1 to 12. These needles have hooks similar in appearance to those of hand crochet needles.

The needle must be selected according to the thickness and the style of the thread to be used. The thread must not only fill the opening of the hook in the needle but must slide freely therein.

To correspond with the needle used in the machine a suitable nipple must be selected, as the needle in forming the stitch has to operate through the nipple. The needle must fit in the nipple and slide freely without side play. Nipples are available in size numbers similar to those of the needles, and for general work the number of the nipple should be the same as that of the needle.

TO REMOVE, REPLACE AND SET NEEDLE AND NIPPLE

When it is necessary to change the needle and nipple on the machine, first select another needle and corresponding nipple. Then lower the presser bar, loosen wing screw B, Fig. 3 and remove needle holder A and needle from top of machine. Unscrew nipple N, using the small wrench provided.

Select the correct needle hole in needle plate D.

NOTE : The needle hole should be slightly larger than the needle, so that the needle, when laid around the needle, will have sufficient space to pass without touching the sides of the needle hole.

Loosen thumb screw L and turn plate D until correct needle hole is in line with needle, then tighten thumb screw L.

Next, screw selected nipple into the lower end of nipple carrier O and tighten securely with the small wrench. Screw selected needle into either end of needle holder A and tighten with pliers provided. Replace needle holder A down into sleeve and adjust its height so that the fabric to be embroidered can just pass under the point of the needle.

Be sure handle K is as far to the front as possible and that the hook of the needle faces the front. Then tighten wing screw B, which also should face the front.

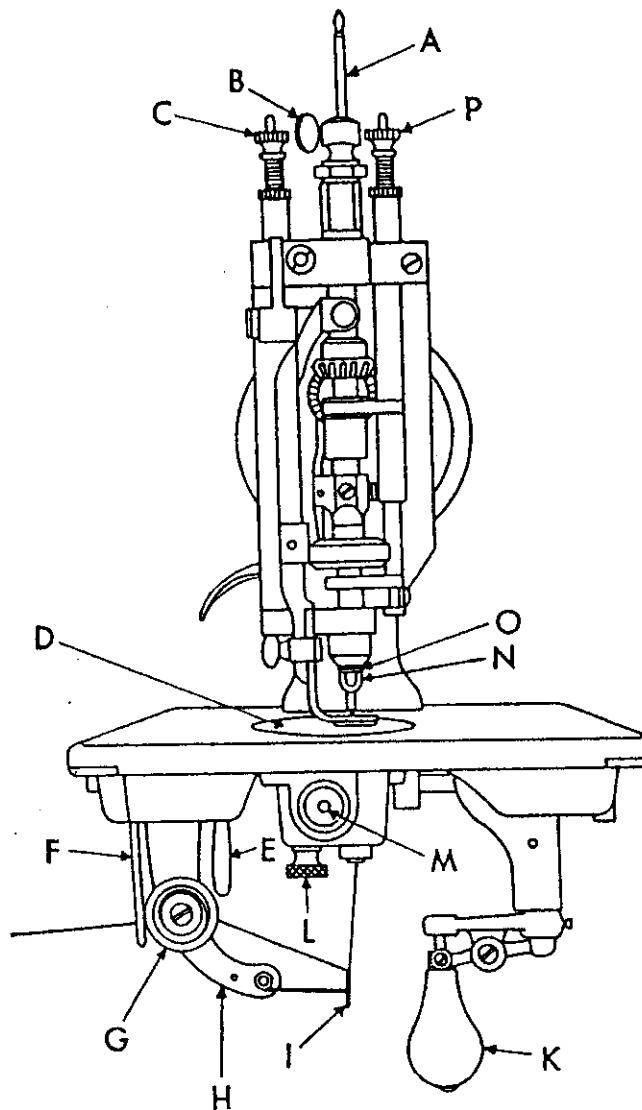


Fig. 3. Adjustments on the Machine

- | | |
|---|---|
| A. Needle Holder | K. Handle for Directing Feed and
Operating Stop Motion |
| B. Wing Screw for Needle Holder | L. Thumb Screw for Holding Needle
Plate |
| C. Thumb Screw for Regulating
Pressure on Presser Foot | M. End for Looper Shaft |
| D. Needle Plate | N. Nipple |
| E. Tension Regulating Lever | O. Nipple Carrier |
| F. Tension Regulating Plate | P. Thumb Screw for Regulating
Pressure on Nipple |
| G. Tension Complete | |
| H. Tension Bracket | |
| I. Thread Controller Spring | |

TO THREAD THE MACHINE

Place the cone of thread in a convenient position on the floor.

Three thread eyelets are furnished with the machine. These eyelets should be fastened to the underside of the table as shown at 1, 2 and 3, Fig. 4. Eyelet 1 should be located directly above the cone of thread.

Pass the thread up from the cone and through eyelets 1, 2 and 3, then through hole 4, over between tension discs 5, through thread controller 6. Turn handle K, Fig. 5 to the front or slightly to the left, raise presser foot and insert threading wire S in the forward hole 7 of needle plate. With the left hand, catch thread on hook of threading wire S and draw wire and thread up through hole of needle plate. With the left hand, hold end of thread with a slight tension.

With the right hand, turn handle K straight to the left and, having started the machine, quickly bear down and up on handle K so that the needle will pick up the thread for one stitch.

Keep handle K in same position and, with the threading wire, draw thread directly toward you, laying end of thread loosely on needle plate after it comes up through needle hole. The machine is then ready for operation.

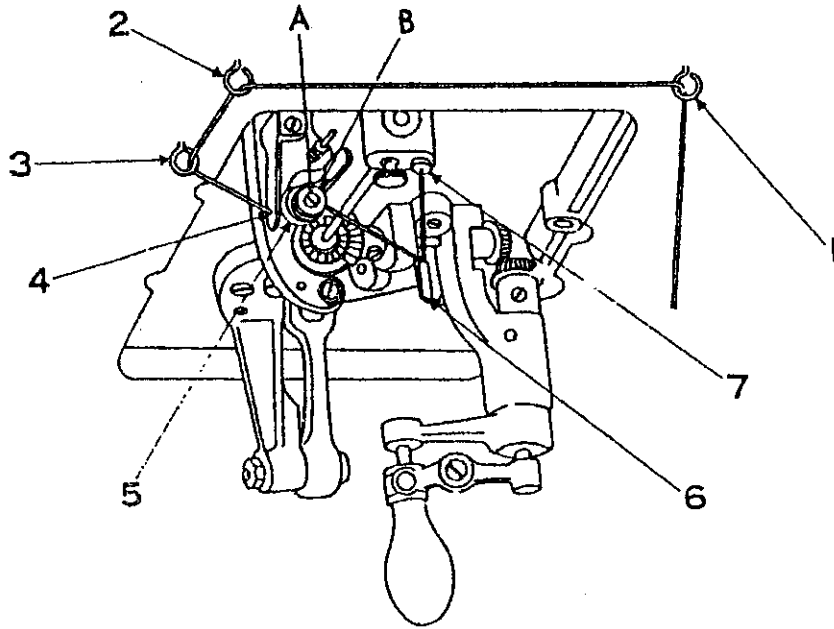


Fig. 4. Threading Machine

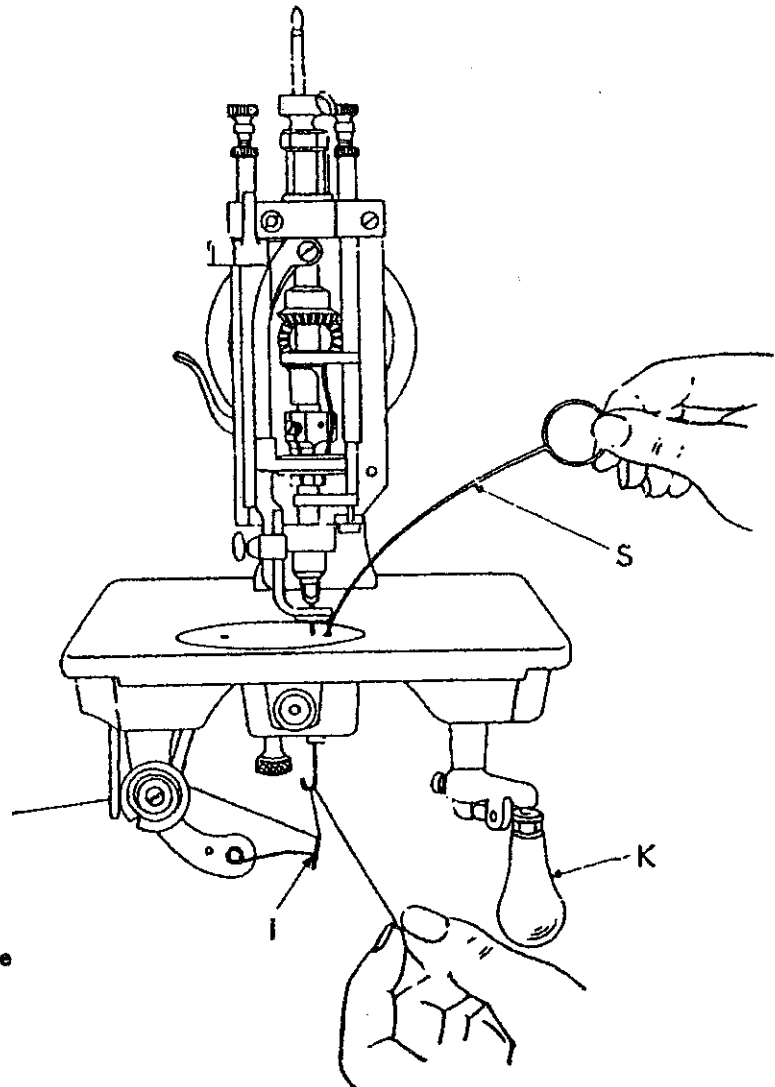


Fig. 5. Threading Machine

LEARNING TO OPERATE THE MACHINE

NOTE : When in operation the machine pulley must always turn over away from operator.

Mark a design (see Fig. 6) on a 12 inch square piece of cloth.

Place cloth under presser foot so that needle will enter cloth at point 1. Turn handle K, Fig. 3 to the right and the hook of the needle will be turned in the same direction. Lower presser foot, start machine pulley by turning it over away from you, grasp handle K and pull it down to start the machine. With handle depressed and to the right, cloth will be fed to point 2, then turn handle to the front and cloth will be fed to point 3, turn handle to the left and cloth will be fed to point 4, etc.

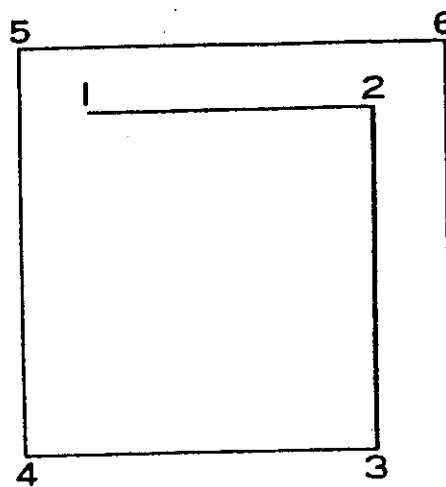


Fig. 6. Diagram for Practice

To stop machine raise handle K. Machine will stop with needle as its highest point.

TO OPERATE THE MACHINE

The operator should practice embroidering designs similar to those illustrated below.



Fig. 7. Designs for Beginners

These designs can be sketched on white material such as lawn, and by following them, the operator can soon become proficient enough to attempt more intricate designs or patterns.

TO REGULATE THE PRESSURE ON THE PRESSER FOOT

The pressure on the presser foot is regulated by the thumb screw C, Fig. 3. To increase the pressure, turn the thumb screw over to the right or downward. To decrease the pressure, turn the thumb screw over to the left or upward.

TENSIONS

If stitches are too tight, raise needle holder approximately 1/16 inch.

Various effects can be produced by changing the height of the needle holder as well as by adjusting the length of stitch.

The tension on the thread is regulated by the thumb nut B, Fig. 4 at the left of the tension discs. To increase the tension turn this nut over toward you. To decrease the tension turn this thumb nut over from you. This tension should be only tight enough to prevent the skipping of stitches.

TO ADJUST THE LENGTH OF STITCH

The length of stitch is adjusted by screw T, Fig. 8. To lengthen the stitch, loosen locking lever U and turn screw T over to the left or upward, then tighten locking lever U.

To shorten the stitch, loosen locking lever U and turn the screw T over to the right or downward, then tighten locking lever U.

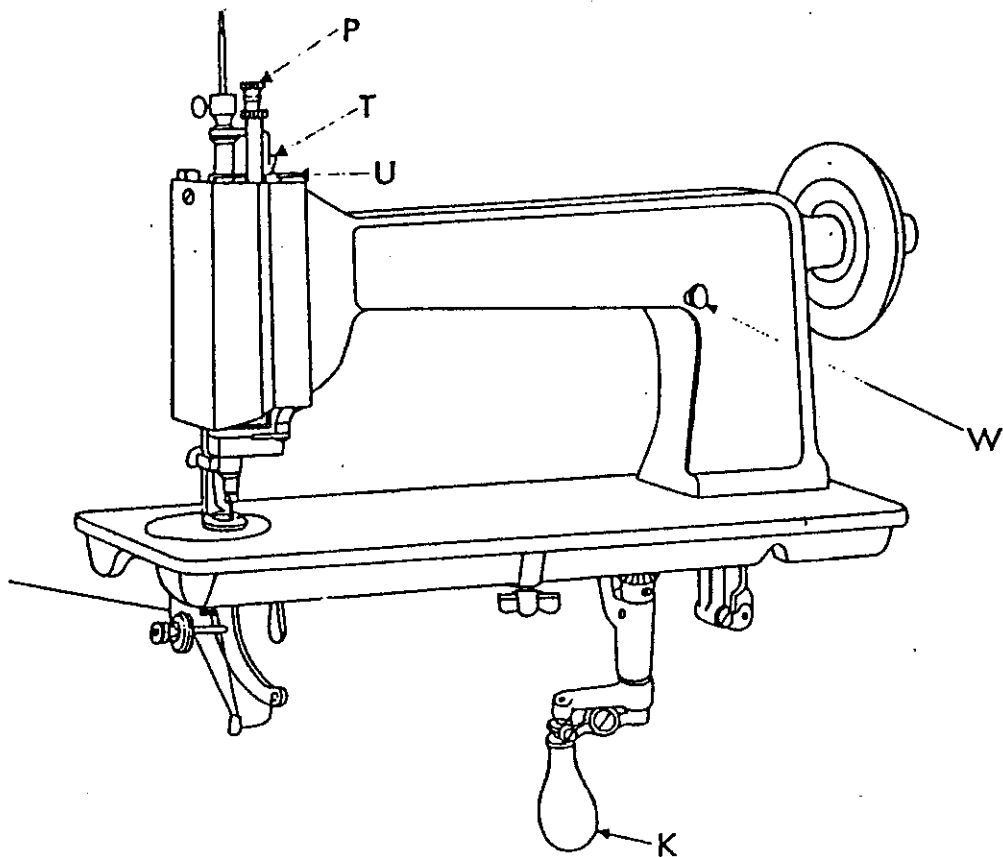


Fig. 8. Adjustments on the Machine

TO REGULATE THE PRESSURE ON THE NIPPLE

The pressure on the nipple is regulated by the thumb screw P, Fig. 8 at the top of the machine. To increase the pressure, turn this thumb screw over to the right or downward. To decrease the pressure, turn this thumb screw over to the left or upward.

NOTE : Too much pressure on the nipple may cause the thread to break.

When sewing fine net, it is sometimes necessary to prevent the nipple from touching the needle plate.

To raise the nipple, insert a screw driver in hole R, Fig. 9 and loosen the set screw therein. The eccentric adjusting stud Q can then be turned so that nipple can be set at the desired height; then tighten the set screw in hole R.

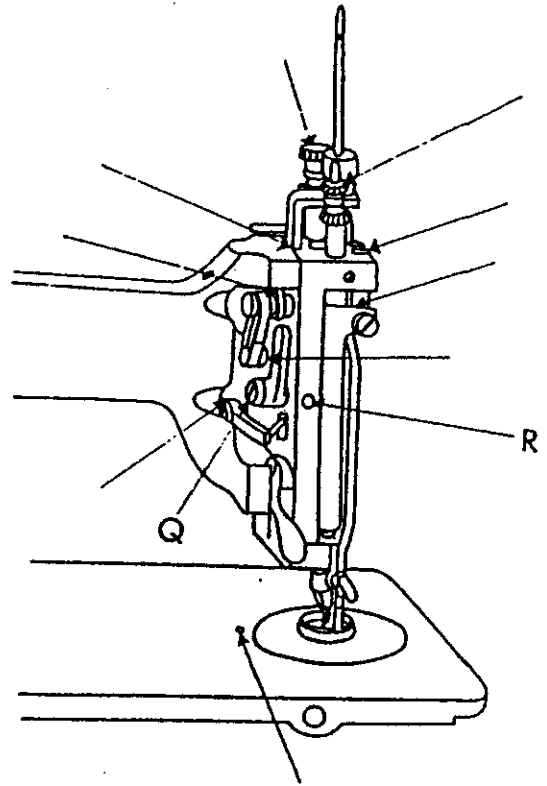


Fig. 9. Oiling Points and Adjustments at the Back of the Machine

THE LOOPER

Allow the stop motion to throw the machine out of action and make sure that it is securely held in its locking position. Raise the needle holder to avoid breaking the point of the needle, remove the needle plate after removing the thumb screw L, Fig. 10, and observe the notch in the looper which, when in its correct position, should be at the rear, slightly to the right of the needle, while the handle K is toward the front.

TO SET THE LOOPER

Turn the machine back on its hinges and turn handle K, Fig. 10 and wing screw B, Fig. 3 to the front. Loosen set screw X, Fig. 10 of the operating worm gear Y, and turn the gear slightly, until the notch in the looper is in its correct position as instructed above. After having set the worm gear flush with the end of the looper shaft M, tighten the set screw X.

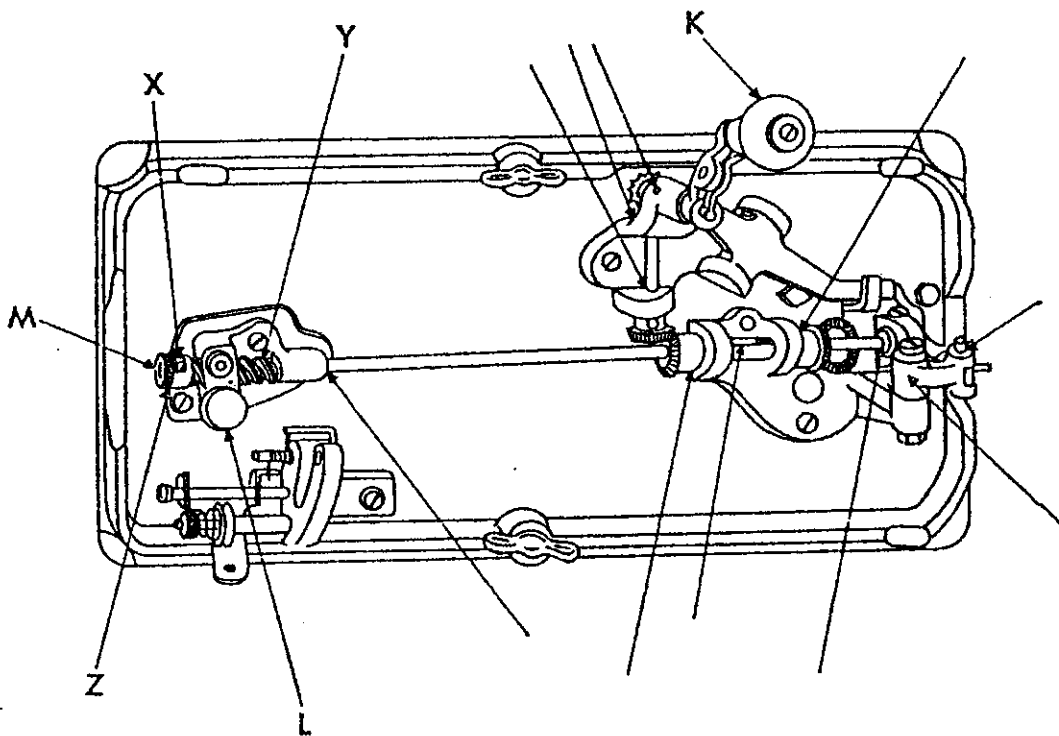


Fig. 10. Oiling Points and Adjustments in Base of Machine

PILE OR MOSS STITCH

The raised pile or moss stitch is produced by adjusting the machine so that it will drop the stitches in loose loops on the material. To accomplish this, turn handle K to the front, loosen the wing screw B, Fig. 3 and turn the needle holder so that the hook of the needle will point directly to the back of the machine, then tighten the wing screw. Reach under the bed of the machine with the left hand, grasp the knurled end Z, Fig. 10 of the operating worm gear, draw the worm gear to the left and while holding it turn

handle K around to the right directly to the back, then release the knurled end of the gear.

The looper will then be set in the opposite direction to that which is required for the chain stitch, or with the notch of the looper at the front of the needle while handle K is at the front.

By operating the machine and turning handle K rapidly, so as to make very small circles of dropped stitch loops laid one on the other, raised pile work is produced. The higher the needle is set the longer the loop will be. The size of the thread and thickness of the material used will have to be considered when adjusting the machine for pile stitching.